

## Medical Terminology Student Companion



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# Contents

Introduction	1
Acknowledgements	2
 Part I. Main Body	
1. Identifying Word Parts in Medical Terms	5
2. Medical Language Related to the Body as a Whole	6
3. Integumentary System	10
4. Respiratory System	21
5. Urinary System	35
6. Male Reproductive System	45
7. Female Reproductive System	55
8. Obstetrics	66
9. Cardiovascular System – Heart	75
10. Cardiovascular System – Blood Vessels and Blood	84
11. Lymphatic and Immune Systems	93
12. Digestive System	102
13. Skeletal System	114
14. Muscular System	125
15. Sensory Systems	132
16. Nervous System	145
17. Endocrine System	157
 Part II. Word Bank	
18. A	169
19. B	176
20. C	178
21. D	185
22. E	188
23. F	192
24. G	193
25. H	195
26. I	199
27. J	202
28. K	203

29. L	204
30. M	207
31. N	211
32. O	214
33. P	218
34. Q	225
35. R	226
36. S	228
37. T	234
38. U	238
39. V	240
40. W	242
41. X	243
42. Z	244

When learning a language, it can feel like there is so much to know! This resource is a study companion to accompany *Medical Terminology* to assist students in learning, studying, and reviewing the course material.

In particular, if you intend print *Medical Terminology*, it is important that you also print this companion resource because it includes the word parts and word lists from each chapter. It also translates the interactive practice activities in a simple, straightforward format that is suitable for printing, study, and review. Please note that the answers to the review activities provided in this companion are available in the interactive electronic activities found in the textbook.

**Students:** We hope that, with time and dedication, you will become comfortable with the rules of medical language and the most common word parts. You can then use these building blocks to understand, interpret, and construct medical terms throughout your academic and professional careers.

**Faculty and teaching staff:** While this OER was curated and created for Medical Terminology students in a technical college system, our hope is that you will take this OER and customize it for your program and share again.

## How this open educational resource (OER) works.

This companion book is an adaptation of *Medical Terminology*, which is licensed under a Creative Commons Attribution 4.0 International License. That book was adapted from eCampusOntario's version of *Building a Medical Terminology Foundation* by K. Carter and M. Rutherford which is licensed under a Creative Commons Attribution 4.0 International License, which was initially adapted from the OpenStax *Anatomy and Physiology* OER by Betts, et al., licensed under a Creative Commons Attribution 4.0 International License.

For more information about this OER project, please see <https://nicoletcollege.pressbooks.pub/lcmedicalterminology/front-matter/introduction/>

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# Acknowledgements

From 2020 to 2022, a team of instructors, librarians, and staff from across the Wisconsin Technical College System collaborated to create an open education resource (OER) textbook, companion, and assessments specifically for Wisconsin Technical College students so they could take the Medical Terminology course with no additional textbook costs.

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PART I  
MAIN BODY



# I. Identifying Word Parts in Medical Terms

Topic: **Identifying Word Parts in Medical Terms**

Text Reference: **Chapter 1. Identifying Word Parts in Medical Terms**

Objectives: **Students should be able to...**

Apply the rules of medical language to pronounce, break into word parts, and define the following words.

Label each word part by using the following abbreviations:

P = Prefix

WR = Word Root

CV = Combining Vowel

S = Suffix

CF = Combining Form

intravenous (in-tră-VĒ-nūs)

osteoarthritis (ă-stē-ō-ăr-'thrī-təs)

osteopathopathy (ă-stē-ō-ăr-THROP-ă-thē)

Understand the key parts of medical terminology. Match the words with the definitions.

combining vowel | prefix | suffix | word root

1. word part at the beginning of the term that changes meaning
2. word part at the end of the term that changes meaning
3. foundational meaning of a word
4. used to join word parts to ease pronunciation

## 2. Medical Language Related to the Body as a Whole

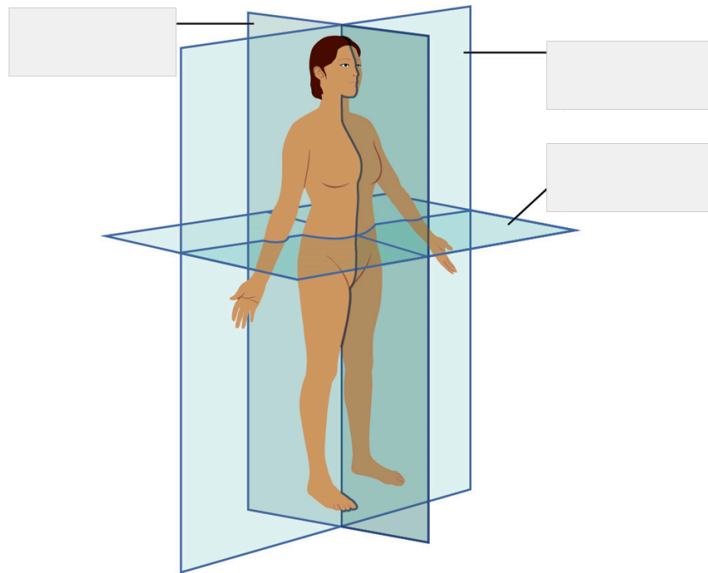
Topic: **Medical Language Related to the Body as a Whole**

Text Reference: **Chapter 2. Medical Language Related to the Body as a Whole**

Objectives: **Students should be able to...**

Use the anatomic reference system to identify the body planes below.

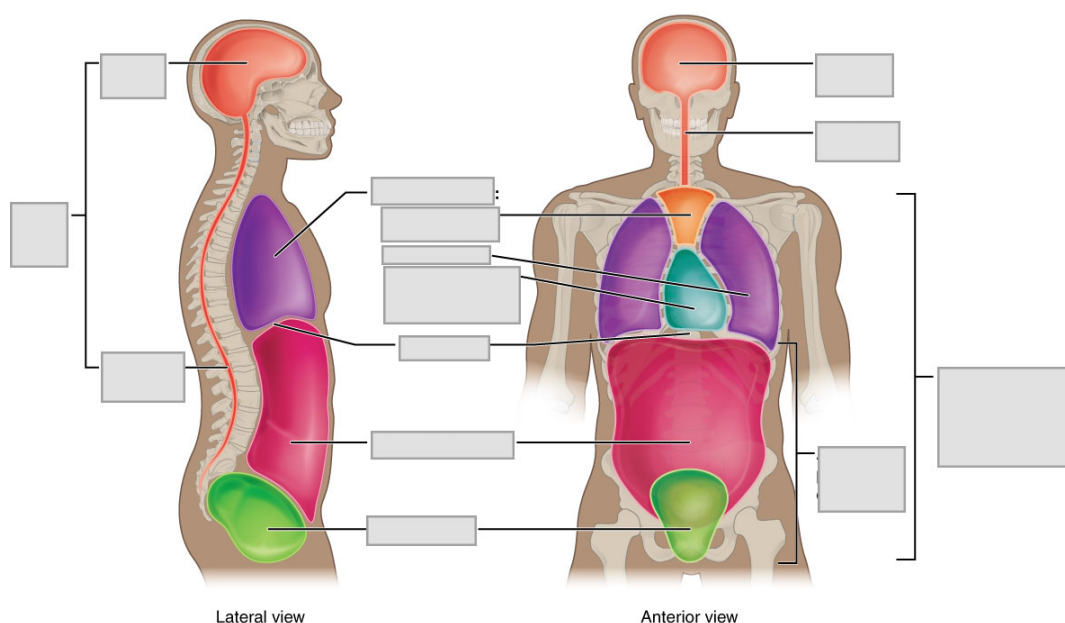
frontal (coronal plane) | sagittal plane | transverse plane



*Planes of the body. Image adapted from Betts et al., 2021. CC-BY 4.0.*

Use the anatomic reference system to identify the body cavities

abdominal | abdominopelvic | cranial | cranial | diaphragm | dorsal | pelvic | thoracic | ventral | vertebral | vertebral



**Practice pronouncing and defining the following directional terms.**

Anterior (or Ventral) (an-TĒR-ē-ōr)

Deep (DĒP)

Distal (DIS-tāl)

Homeostasis (HŌ-mē-ō-STĀ-sis)

Inferior (or Caudal) (in-FĒR-ē-ōr)

Lateral (LĀT-ēr- āl)

Medial (MĒD-ē-āl)

Posterior (or Dorsal) (pös-TĒ-rē-or)

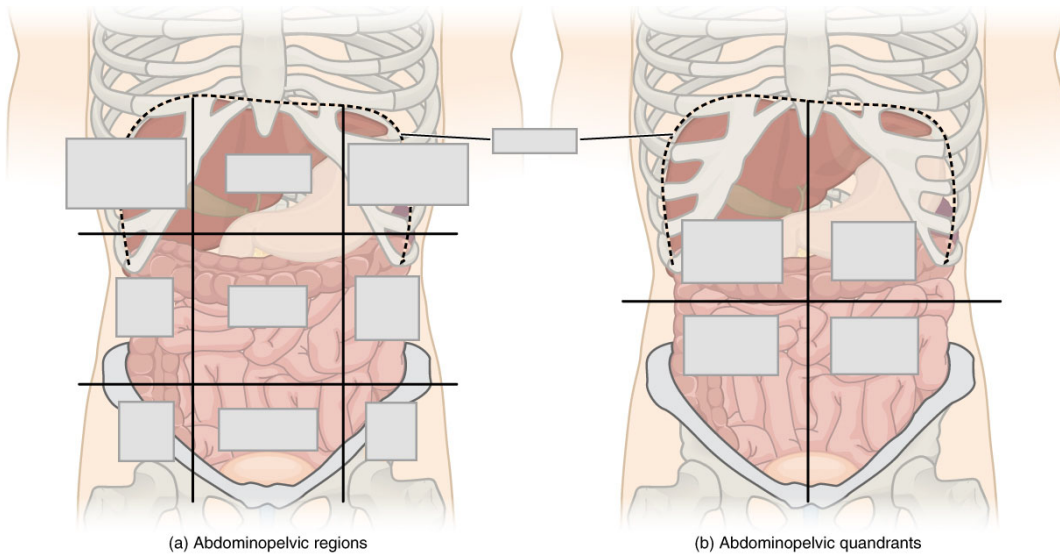
Proximal (PROK-sí-māl)

Superficial (SOO-pēr-FISH-āl)

Superior (or Cranial) (soo-PĒ-rē-or)

**Use the anatomic reference system to identify the regions and quadrants of the body pictured below.**

diaphragm | epigastric | hypogastric | left hypochondriac | left iliac | left lumbar | left lower quadrant | left upper quadrant  
| right hypochondriac | right iliac | right lower quadrant | right lumbar | right upper quadrant | umbilical



Regions and quadrants.  
Betts et al., 2021. CC-BY  
4.0.

**Use terms related to the body as a whole.**

Test your knowledge by answering the questions below.

The smallest unit of any of these pure substances (elements) is a(n)

1. cell
2. organ
3. atom

Describes a position closer to the surface of the body.

1. anterior
2. superior
3. superficial

The plane that divides the body or organ horizontally into upper and lower portions is called the

1. transverse plane
2. sagittal plane
3. frontal plane

The cavity that includes the cranial cavity and spinal cavity is called the

1. ventral cavity
2. anterior cavity
3. posterior cavity

The name of the layer of the membrane that covers the organs is the

1. parietal layer
2. serous layer
3. visceral layer

### 3. Integumentary System

Topic: **Integumentary System**

Text Reference: **Chapter 3. Integumentary System**

Objectives: **Students should be able to...**

#### Identify meanings of key word components of the integumentary system

##### Prefixes

a- (absence of, meaning)

bi- (two or both)

dia- (through, complete)

dys- (difficult, painful, abnormal, labored)

epi- (upon, on, over)

hyper- (above, excessive)

hypo- (deficient, below, under, incomplete)

intra- (within, in)

meta- (change, beyond, after)

neo- (new)

para- (beside, around, beyond, abnormal)

per- (through)

pro- (before)

sub- (under, below)

trans- (through, across, beyond)

uni- (one)



## Combining Forms

aden/o (gland)

adip/o (fat)

albin/o (white)

aut/o (self)

bi/o (life)

coni/o (dust)

cry/o (cold)

crypt/o (hidden)

cutane/o (skin)

cyan/o (blue)

derm/o (skin)

dermat/o (skin)

erythr/o (red)

erythemat/o (redness)

fibr/o (fibrous tissues)

heter/o (other)

hidr/o (sweat)

kerat/o (hard, horny tissue, keratin)

lei/o (smooth)

leuk/o (white)

lip/o, lipid/o (fat)

melan/o (black)

myc/o (fungus)

necr/o (death)

onych/o (nail)

pachy/o (thick)

pil/o (hair)

py/o (pus)

rhytid/o (wrinkles)  
sclera/o (hardening)  
seb/o (sebum)  
staphyl/o (grapelike clusters)  
steat/o (fat, sebum)  
strept/o (twisted chains)  
ungu/o (nail)  
xanth/o (yellow)  
xer/o (dryness, dry)

## Suffixes

-a (no meaning, noun ending)  
-al (pertaining to)  
-ad (toward)  
-coccus (berry-shaped)  
-cyte (cell)  
-ectomy (excision)  
-gen (substance that produces/causes, agent that produces/causes)  
-genic (producing, originating, causing)  
-ia (condition of, diseased state, abnormal state)  
-ic (pertaining to)  
-itis (inflammation)  
-ior (pertaining to)  
-logy (study of)  
-logist (specialist who studies and treats)  
-malacia (softening)  
-megaly (enlarged, enlargement)  
-oid (resembling)  
-oma (tumor, swelling)

- opsy (view of, process of viewing, viewing)
- orrhea (flow, excessive discharge)
- osis (abnormal condition, increased numbers relating to blood)
- ous (pertaining to)
- pathy (disease)
- phagia (eating, swallowing)
- plasia (development, growth, condition of formation)
- plasm (growth, substance, formation)
- plasty (surgical repair)
- rrhea (flow, discharge)
- sis (state of)
- stasis (stop, controlling, standing)
- tome (instrument used to cut)

**Apply the rules of medical language to pronounce, break into word parts, and define the following integumentary system words.**

Label each word part by using the following abbreviations:

- P = Prefix
- WR = Word Root
- CV = Combining Vowel
- S = Suffix
- CF = Combining Form

Example: osteoarthropathy (ă-stē-ō-ăr-THROP-ă-thē) – disease of bone and joint

WR   CV   WR   CV   S  
 oste / o / arthr / o /pathy  
       CF            CF

biopsy (bx) (BĪ-op-sē)

dermatitis (dĕr-mă-TĪT-ĭs)

dermatoautoplasty (dĕr-mă-tō-AW-tō-plăś-tē)

dermatocoinosis (dĕr-mă-tō-kō-nē-Ō-sĭs)

dermatofibroma (dĕr-mă-tō-fī-BRŌ-mă)  
 dermatoheteroplasty (dĕr-mă-tō-HĚT-ĕr-ō-plăs-tĕ)  
 dermatologist (dĕr-mă-TŎL-ō-jĭst)  
 dermatology (derm) (dĕr-mă-TŎL-ō-jĕ)  
 dermatome (DĚR-mă-tōm)  
 dermatoplasty (DĚR-măt-ō-plăs-tĕ)  
 epidermal (ĕp-ī-DĚR-mal)  
 erythroderma (ĕ-rith-rŏ-DĚR-mă)  
 hidradenitis (hi-dra-ĕn-ĪT-ĭs)  
 hypodermic (hĭ-pō-DĚR-mĭk)  
 intradermal (ID) (in-tră-DĚR-măl)  
 keratogenic (kĕr-ă-TŎJ-ĕ-nŭk)  
 keratosis (ker-ă-TŎ-sĭs)  
 leioderma (lĭ-ō-DĚR-mĕ-ă)  
 leukoderma (loo-kŏ-DĚR-mă)  
 necrosis (nĕ-KRŌ-sĭs)  
 onychocryptosis (ŏn-ĭ-kŏ-krip-TŎ-sis)  
 onychomalacia (ŏn-ĭ-kŏ-mă-LĀ-shă)  
 onychomycosis (on-i-kŏ-mĭ-KŎ-sĭs)  
 onychophagia (ŏn-ĭ-KŎF-ă-jĕ)  
 pachyderma (pak-ĕ-DĚR-mă)  
 paronychia (păr-ō-NĪK-ĕ-ă)  
 percutaneous (pĕr-kŭ-TĀ-nĕ-ŭs)  
 rhytidectomy (rit-ĭ-DEK-tŏ-mĕ)  
 rhytidoplasty (RĪT-ĭ-dŏ-plăs-tĕ)  
 seborrhea (sĕb-or-Ē-ă)  
 staphylococcus (staph) (staf-ĭ-lŏ-KOK-ŭs)  
 streptococcus (strep) (strep-tŏ-KOK-ŭs)  
 subcutaneous (subcut, Sub-Q) (sŭb-kŭ-TĀ-nĕ-ŭs)

subungual (sŭb-ŬNG-gwǎl)

transdermal (TD) (trǎnz-DĚRM-ǎl)

ungual (ŬNG-gwǎl)

xeroderma (zer-ŏ-DĚR-mǎ)

xerosis (zĕ-RŌ-sīs)

**Practice pronouncing and defining these integumentary system medical terms that are not easily broken into word parts.**

abrasion (ǎ-BRĀ-zhŏn)

abscess (AB-ses)

acne (AK-nĕ)

adipocytes (AD-ĭ-pŏ-sĭts)

adipose (AD-ĭ-pŏs)

albinism (AL-bĭ-nizm)

apocrine sweat gland (AP-ŏ-krĕn swet gland)

autonomic (ot-ŏ-NOM-ik)

bacteria, bacterium (bak-TĒR-ĕ, bak-TĒR-ĕ-ŭm)

basal cell carcinoma (BCC) (BĀ-sǎl sel kar-sĭn-Ō-ma)

benign (bĕ-NĪN)

cancer (KAN-sĕr)

cauterize, cauterization (KAW-tĕr-ĭz)

cellulitis (sel-yŭ-LĪT-ĭs)

contusion (kŏn-TOO-zhŏn)

cyanosis (sĭ-ǎ-NŌ-sīs)

cyst (sist)

debride, debridement (di-BRĒD, di-BRĒD-mĕnt)

dehydration (dĕ-hĭ-DRĀ-shŏn)

dendritic cells (den-DRIT-ik)

dermabrasion (DĚRM-ǎ-brā-zhŏn)

dermis (DĚR-mīs)

diaphoresis (dī-ă-fö-RE-sīs)

eccrine sweat gland (ĚK-rĭn swet gland)

eczema (eg-ZĚ-mă)

edema (ě-DĚ-mă)

excise, excision (Ěk-SĪZ, ek-SIZH-ön)

fascia (FASH-ē-ă)

frostbite (FROST-bīt)

gangrene (GANG-grĕn)

incise, incision (in-SĪZ, in-SIZH-ön)

incision and drainage (I&D) (in-SIZH-ön & DRĀN-ăj)

infection (in-FEK-shŏn)

jaundice, jaundiced (JON-dīs, JON-dīsd)

keloid (KĚ-loyd)

keratin (KER-ăt-ĭn)

keratinocyte (kĕ-RĀT-ĭ-nŏ-sīt)

laceration (las-ĕ-RĀ-shŏn)

laser surgery (LĀ-zĕr SŮRJ-ĕ-rĕ)

lesion (lĚ-zhŏn)

leukoplakia (loo-kŏ-PLĀ-kĕ-ă)

macule (MAK-ŭl)

Meissner corpuscle (MĪS-nĕr KOR-pŭs-ĕl)

melanoma (mel-ă-NŌ-mă)

metastasize (mĕ-TĀS-tă-sīz)

nevus (NĚ-vŭs)

nodule (NOJ-ool)

pallor (PĀL-or)

Pacinian corpuscle (pă-SIN-ē-ăn KOR-pŭs-ĕl)

pallor (PĀL-or)

pathogens (path-Ŏ-jěns)  
phagocytes (făg-ô-SĪTS)  
pruritus (proo-RĪT-űs)  
psoriasis (sŏ-RĪ-ă-sīs)  
pustule (PŬS-tŭl)  
reticulated (rě-TIK-yŭ-lăt-ěd)  
rickets (RIK-ěts)  
scar (skăř)  
sebaceous gland (sē-BĀ-shŭs gland)  
squamous cell carcinoma (SCC) (SKWĀ-mŭs sel kar-sĭn-Ŏ-mă)  
stratum basale (STRĀ-tŭm BĀS-al)  
suture (SOO-chŭr)  
sympathetic (sĭm-pă-THĚT-ĭk)  
Sympathetic Nervous System (sĭm-pă-THĚT-ĭk NĚR-vŭs SIS-tĕm)  
tinea (TIN-ē-ă)  
vascularized (VAS-kyŭ-lă-rĭzd)  
verruca (věr-ROO-kă)  
virus (VĪ-rŭs)

**Practice pronouncing and defining these commonly abbreviated integumentary system terms.**

BCC (basal cell carcinoma)  
bx (biopsy)  
CA-MRSA (community-associated MRSA)  
derm (dermatology)  
HA-MRSA (healthcare-associated MRSA)  
I&D (incision and drainage)  
ID (intra-dermal)  
MRSA (methicillin-resistant Staphylococcus aureus)

SCC (squamous cell carcinoma)

SLE (systemic lupus erythematosus)

staph (staphylococcus)

strep (streptococcus)

subcut, Sub-Q (subcutaneous)

TD (transdermal)

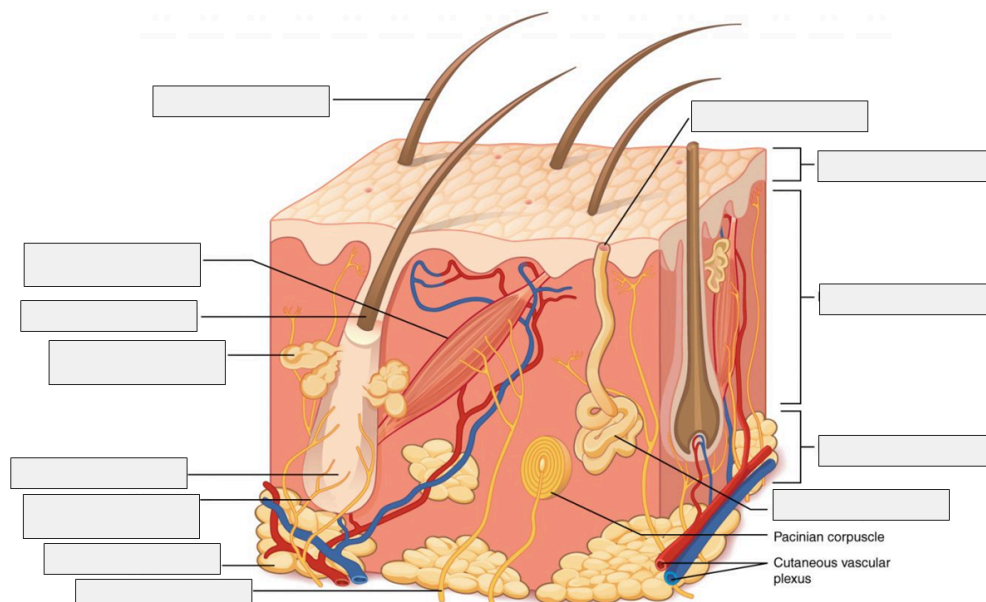
Sort the terms from the word lists above into the following categories.

- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)
- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

Use terms related to the integumentary system.

Practice labeling the layers of the skin.

adipose tissue | arrector pili muscle | dermis | eccrine sweat gland | epidermis | hair follicle | hair follicle | hair root | hair shaft | hypodermis | pore of sweat gland | sebaceous/oil gland | sensory nerve fiber



Layers of skin. Image adapted from Betts et al., 2021. CC BY 4.0.



Place the following medical terms in context to complete the scenario below.

benign | lesion | asymmetrical | biopsy | mole | excisional | irregular

INTEGUMENTARY SYSTEM – CONSULTATION REPORT

PATIENT NAME: Rosemary COOMBS

AGE: 54

Sex: Female

DOB: December 2

DATE OF CONSULTATION: May 29

REQUESTING PHYSICIAN: Trevor Sharpe, MD, Family Medicine

CONSULTING PHYSICIAN: Donna Brown, MD, Dermatology

HISTORY: This 54-year-old white female, went to her family doctor a year ago when she noticed a dark brown spot on her neck. The spot was a six cm, dark brown, flat \_\_\_\_\_ with smooth borders that appeared \_\_\_\_\_. Ms. Coombs recently went to Dr. Sharpe for a physical and the \_\_\_\_\_ was examined, it was suggested that Ms. Coombs see me.

PAST HISTORY: No known history of any skin disorders.

PHYSICAL EXAMINATION: Normal except for the lesion on her chest which has grown to 1.3 cm in diameter and \_\_\_\_\_ in shape. It is mainly dark brown, with regions of darker black. The borders are \_\_\_\_\_ in outline. There is some blackened areas that are slightly elevated.

PLAN: I have booked a follow up appointment for next week to do an \_\_\_\_\_ biopsy. I will then send the specimen for a \_\_\_\_\_. Another follow up appointment will be made once I receive the results of the biopsy.

Donna Brown, MD, Dermatology

Practice filling in the blanks with the correct word parts.

Remember combining form vowels are indicated with a line on each side.

al | ectomy | trans | derm | rhytid | cutane | ous | ous | logist | auto | xero | o | phagia | derma | derma | o | sis | dermat | hidr | o | tone | o | aden | kerat | necr | cutane | onycho | plasty | per | genic | dermat | itis | sub

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ refers to the surgical repair of one's own skin.

Something that generates the production of epidermal tissues might be called \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_.

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ refers to something in a state of death.

\_\_\_\_\_/\_\_\_\_\_ is a technical name for nail-biting.

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ means pertaining to through the skin.

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ injection is given under the skin.

During the winter months many people complain of \_\_\_\_\_/\_\_\_\_\_ and use extra lotion.

A patch filled with medication, applied to the skin so that medication goes through the skin is referred to as a \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ patch.

An instrument used to cut the skin for biopsy is referred to as a \_\_\_\_\_/\_\_\_\_\_.

A specialist who studies and treats disorders and diseases of the skin is referred to as a \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_.

The medical term that means a sweat gland is inflamed is \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_.

The medical term to excise wrinkles or commonly referred to as a facelift is \_\_\_\_\_/\_\_\_\_\_.

Test your knowledge by answering the questions below.

Cells that manufacture and store the protein keratin

1. Keratinocytes
2. Vascularized
3. Scar

The outer layer of skin, made of closely packed epithelial cells

1. Epidermis
2. Fascia
3. Adipocytes

Specialized cells that produce melanin which is a dark pigment responsible for coloration of skin and hair

1. Necrosis
2. Melanocytes
3. Keloid

Deepest layer of the epidermal

1. Stratum basale
2. Fascia
3. Dermis

Production of cells that can mobilize and establish tumors in other organs of the body

1. Pathogens
2. Metastasize
3. Debridement

## 4. Respiratory System

Topic: **Respiratory System**

Text Reference: **Chapter 4. Respiratory System**

Objectives: **Students should be able to...**

### Identify meanings of key word components of the respiratory system

#### Prefixes

a- (absence of, without)

an- (absence of, without)

brady- (slow)

dys- (difficult, painful, abnormal, labored)

endo- (within, in)

eu- (normal, good)

hyper- (above, excessive)

hypo- (below, incomplete)

intra- (within, in)

poly- (many, much)

tachy- (fast, rapid)

#### Combining Forms

adenoid/o (adenoids)

alveol/o (alveolus)

atel/o (imperfect, incomplete)

bronch/o (bronchus)

bronchi/o (bronchus)

capn/o (carbon dioxide)  
diaphragmat/o (diaphragm)  
epiglott/o (epiglottis)  
hem/o (blood)  
hemat/o (blood)  
laryng/o (larynx)  
lob/o (lobe)  
muc/o (mucus)  
nas/o (nose)  
orth/o (straight)  
ox/i (oxygen)  
pharyng/o (pharynx)  
phon/o (sound, voice)  
phren/o (diaphragm)  
pleur/o (pleura)  
pneum/o (lung, air)  
pneumon/o (lung, air)  
pneumat/o (lung)  
pulmon/o (lung)  
py/o (pus)  
radi/o (x-rays, ionizing radiation)  
respir/o (breath, breathing)  
rhin/o (nose)  
sept/o (septum)  
sinus/o (sinus)  
somn/o (sleep)  
son/o (sound)  
spir/o (breathe, breathing)  
thorac/o (thorax, chest cavity)

tom/o (to cut, section, slice)

tonsill/o (tonsil)

trache/o (trachea)

## Suffixes

-algia (pain)

-ar (pertaining to)

-ary (pertaining to)

-cele (hernia, protrusion)

-centesis (surgical puncture to aspirate fluid)

-eal (pertaining to)

-ectasis (stretching out, dilation, expansion)

-ectomy (excision, cut out)

-emia (in the blood)

-genic (producing, originating, causing)

-gram (the record, radiographic image)

-graph (instrument used to record)

-graphy (process of recording, radiographic imaging)

-ia (condition, diseased state, abnormal state)

-ic (pertaining to)

-itis (inflammation)

-logist (specialist or physician who studies and treats)

-logy (study of)

-meter (instrument used to measure)

-metry (measurement)

-oid (resembling)

-pexy (surgical fixation, suspension)

-plasty (surgical repair)

-pnea (breathing)

- ptysis (spitting, coughing)
- rrhagia (rapid flow of blood, excessive bleeding)
- scope (instrument used for visual examination)
- scopic (pertaining to visual examination)
- scopy (process of visually examining, visual examination)
- spasm (sudden involuntary muscle contraction, spasmodic contraction)
- stenosis (constriction, narrowing)
- stomy (creation of an artificial opening)
- thorax (chest, chest cavity)
- tome (instrument used to cut)
- tomy (cut into, incision)

**Apply the rules of medical language to pronounce, break into word parts, and define the following terms.**

Label each word part by using the following abbreviations:

- P = Prefix
- WR = Word Root
- CV = Combining Vowel
- S = Suffix
- CF = Combining Form

Example: osteoarthropathy (ă-stē-ō-ăr-THROP-ă-thē) – disease of bone and joint

WR   CV   WR   CV   S  
 oste / o / arthr / o /pathy  
       CF            CF

acapnia (ă-KAP-nē-ă)

adenoiditis (ad-ě-noyd-ĪT-is)

adenoidectomy (ad-ě-noy-DEK-tō-mē)

adenotome (AD-ě-nō-tōm)

alveolitis (al-vē-ō-LĪT-īs)

alveolar (ăl-VĒ-ō-lăr)

anoxia (ă-NOK-sē-ă)

aphonia (ā-FŌ-nē-ă)

apnea (ap-NĒ-ă)

atelectasis (at-ĕl-EK-tă-sīs)

bronchitis (bron-KĪT-īs)

bronchiectasis (bron-kē-EK-tă-sīs)

bronchoalveolar (bron-kō-al-VĒ-ō-lār)

bronchogenic carcinoma (brōn-kō-JĒN-ĭk kar-sĭn-Ō-mă)

bronchoplasty (brōn-kō-plās-tē)

bronchopneumonia (bron-kō-noo-MŌ-nē-ă)

bronchoscope (BRŌN-kō-skōp)

bronchoscopy (bron-KOS-kō-pē)

bronchospasm (BRŌN-kō-spāzm)

capnometer (kāp-NŌM-ĕ-tēr)

diaphragmatic (dī-ă-frăg-MAT-ik)

diaphragmatocele (dī-ă-frăg-MAT-ō-sĕl)

dysphonia (dis-FŌ-nē-ă)

dyspnea (dis(p)-NĒ-ă)

endoscope (EN-dō-skōp)

endoscopic (en-dō-SKOP-ik)

endoscopy (en-DOS-kō-pē)

endotracheal (ĕn-dō-TRĀ-kē-ăl)

eupnea (ūp-NĒ-ă)

hemothorax (hē-mō-THŌR-aks)

hematology (hēm-ă-TŌL-ō-jē)

hematologist (hēm-ă-TŌL-ō-jĭst)

hemoptysis (hē-MŌP-tĭ-sīs)

hypercapnia (hī-pēr-KAP-nē-ă)

hyperpnea (hī-pĕrp-NĒ-ă)

hypocapnia (hī-pō-KAP-nē-ă)

hypopnea (hī-POP-nē-ă)

hypoxemia (hip-ok-SĒ-mē-ă)

hypoxia (hī-POKS-ē-ă)

laryngeal (lar-ĭn-JĒ-ăl)

laryngitis (lar-ĭn-JĪT-ĭs)

laryngoplasty (lăr-ĬN-gō-plăs-tē)

laryngostomy (lăr-ĭn-GŎS-tō-mē)

laryngotracheobronchitis (LTB) (lă-rĭng-gō-trā-kē-ō-brŏng-KĪ-tĭs)

laryngotracheotomy (lăr-ĭn-gō-trā-kē-ŎT-ō-mē)

laryngoscope (lă-RING-gŏ-skōp)

laryngoscopy (lăr-ĭn-GŎS-kō-pē)

laryngospasm (lăr-ĬN-gō-spăzm)

lobar pneumonia (LŌ-băr noo-MŌN-yă)

lobectomy (lō-BĚK-tō-mē)

muroid (MŪ-koyd)

mucous (MŪ-kŭs)

mucous (MŪ-kŭs)

nasopharyngeal (nă-zō-FAR-ĭn-JĒ-ăl)

orthopnea (or-THŎP-nē-ă)

oximeter (ok-SIM-ět-ěr)

pharyngitis (far-ĭn-JĪT-ĭs)

phrenic (FRĚN-ic)

phrenospasm (FRĚN-ō-spăzm)

pleuritic (ploo-RĪT-ĭk)

pleuritis (ploo-RĪ-tĭs)

pneumatocele (nū-MĀT-ō-sēl)

pneumoconiosis (noo-mō-kō-nē-Ŏ-sĭs)

pneumonia (noo-MŌN-yă)

pneumonitis (noo-mō-NĪT-ĭs)



pneumothorax (noo-mö-THÖR-aks)  
pneumectomy (noo-mö-NEK-tö-mē)  
polysomnography (PSG) (pol-ē-som-NOG-ră-fē)  
pulmonary (PŪL-mō-ně-rē)  
pyothorax (pī-ō-THÖ-răks)  
radiography (ră-dē-OG-ră-fē)  
radiologist (ră-dē-ÖL-ō-jist)  
radiology (ră-dē-ÖL-ō-jē)  
respirologist (res-pī-ROL-ō-jist)  
respirology (rēs-pīr-ÖL-ō-jē)  
rhinitis (rī-NĪ-tīs)  
rhinomycosis (rī-nō-mī-KŌ-sīs)  
rhinoplasty (RĪ-nō-plās-tē)  
rhinorrhagia (rī-nō-RĀ-jē-ă)  
rhinorrhea (rī-nō-RĒ-ă)  
septoplasty (sēp-tō-PLĀS-tē)  
septotomy (sēp-TÖT-ō-mē)  
sinusitis (sī-nŭ-SĪ-tīs)  
sonogram (SON-ō-gram)  
sonography (sō-NOG-ră-fē)  
spirometer (spī-RŌM-ēt-ēr)  
spirometry (spī-RŌM-ē-trē)  
tachypnea (tak-i(p)-NĒ-ă)  
thoracalgia (thō-răk-ĀL-jē-ă)  
thoracentesis (thō-ră-sen-TĒ-sīs)  
thoracocentesis (thō-ră -kō-sen-TĒ-sīs)  
thoracotomy (thō-răk-ÖT-ō-mē)  
thoracoscope (thō-RĀ-kō-skōp)  
thoracoscopy (thō-ră-KŌS-kō-pē)

thoracic (thō-RĀS-ik)  
tomography (tō-MOG-ră-fē)  
tonsillitis (tōn-sil-Ī-tīs)  
tonsillectomy (tōn-sil-ĖK-tō-mē)  
tracheitis (trā-kē-Ī-tīs)  
tracheoplasty (TRĀ-kē-ō-plās-tē)  
tracheostomy (trā-kē-ŎS-tō-mē)  
tracheotomy (trā-kē-ŎT-ō-mē)  
tracheostenosis (trā-kē-ō-stēn-Ŏ-sīs)

**Practice pronouncing and defining these medical terms that are not easily broken into word parts.**

asphyxia (ăs-FIK-sē-ă)  
aspirate (AS-pī-rāt)  
epistaxis (ēp-ī-STĀK-sīs)  
influenza (flu) (in-floo-EN-ză)  
mucus (MŪ-kŭs)  
nebulizer (NEB-yŭ-lī-zēr)  
nosocomial infection (nos-ŏ-KŎ-mē-ăl in-FEK-shŏn)  
pleural effusion (PLOOR-ăl ě-FŪ-zhŭn)  
pulmonary embolism (PE) (PŬL-mō-ně-rē EM-bŏ-liĭzm)  
pulmonary edema (PŬL-mō-ně-rē ě-DĖ-mă)  
upper respiratory infection  
stethoscope (STETH-ŏ-skŏp)  
sputum (SPŬT-ŭm)  
ventilator (VENT-ī-lăt-ŏr)

## Practice pronouncing and defining these commonly abbreviated terms.

ABGs (arterial blood gases)

AFB (acid-fast bacilli)

ARDS (acute respiratory distress syndrome)

BiPAP (bilevel positive airway pressure)

C&S (culture and sensitivity)

CAP (community-acquired pneumonia)

CF (cystic fibrosis)

CO<sub>2</sub> (carbon dioxide)

COPD (chronic obstructive pulmonary disease)

CPAP (continuous positive airway pressure)

CPT (chest physiotherapy)

CT (computed tomography, computerized tomography)

CXR (chest x-ray)

DPI (dry powder inhaler)

flu (influenza)

IPPB (intermittent positive-pressure breathing)

IPF (idiopathic pulmonary fibrosis)

LLL (left lower lobe)

LTB (laryngotracheobronchitis)

LUL (left lower lobe)

MDI (metered-dose inhaler)

NIPPV (non-invasive positive-pressure ventilator)

O<sub>2</sub> (oxygen)

OSA (obstructive sleep apnea)

PEP (positive expiratory pressure)

PFM (peak flow meter)

PFTs (pulmonary function tests)

RLL (right lower lobe)

RML (right middle lobe)

RUL (right upper lobe)

SOB (shortness of breath)

SVN (small-volume nebulizer)

TB (tuberculosis)

URI (upper respiratory infection)

VAP (ventilator-associated pneumonia)

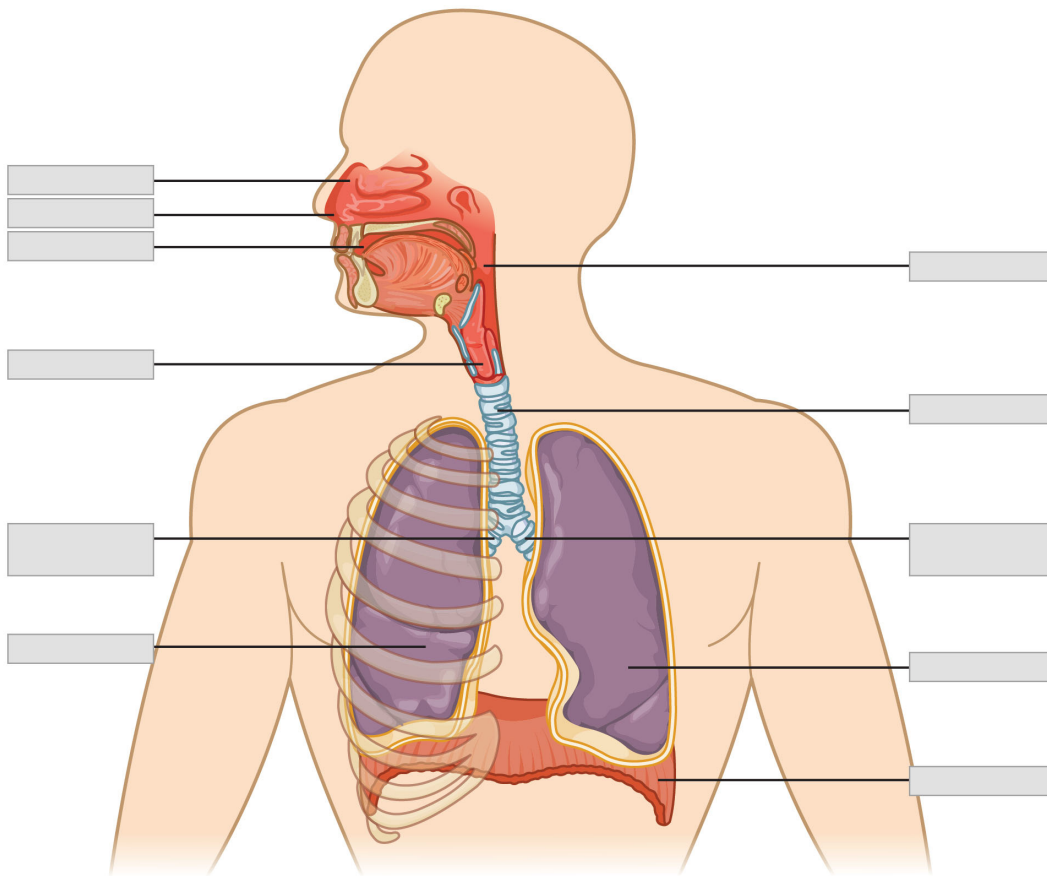
Sort the terms from the word lists above into the following categories.

- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)
- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

Use terms related to the respiratory system.

Label the following respiratory system structures.

diaphragm | larynx | left bronchus | left lung | oral cavity | nasal cavity | nostril | pharynx | right bronchus | right lung | trachea



Place the following medical terms in context to complete the scenario below.

allergens | apnea | asthma | breath | diuretic | edema | edema | erythema | exert | heart failure | HEENT | inspiration | lobes  
| membranes | monitor |

#### RESPIRATORY SYSTEM – HISTORY & PHYSICAL EXAMINATION

PATIENT NAME: Randy BURNS

AGE: 56

DOB: July 2

SEX: Male

ATTENDING PHYSICIAN: Joyce Mathers, MD, Pulmonology

HISTORY: This 56-year-old male is presenting with a 2-week history of worsening dyspnea not associated with exertion. The patient states that he does not have to \_\_\_\_\_ himself for his breathing to get difficult. He feels that “he cannot get his breath” sometimes even with lying in bed. He does report developing a cold and runny nose over the last 10 days, but the worsened breathing seemed to have started a few days earlier than this. He reports that the shortness of \_\_\_\_\_ has progressively gotten worse in the past 2-3 days. Patient does not report any leg or foot \_\_\_\_\_.

PAST HISTORY: The patient has a life history of asthma triggered by environmental \_\_\_\_\_ – grass cutting, trees budding in the spring, street dust etc. He has used a puffer when he has symptoms since he was a child. He has a history

of congestive \_\_\_\_\_ (CHF) and sleep \_\_\_\_\_ for which he uses a CPAP machine nightly.

PHYSICAL EXAMINATION: GENERAL APPEARANCE: The patient appears laboring in breathing. He is quite distressed. VITAL SIGNS: Temperature 97.1, pulse 88, blood pressure 121/86, weight 209 pounds, height 5 feet 8 inches. \_\_\_\_\_ : Eye exam PERRLA. Normocephalic, atraumatic. Moist mucous \_\_\_\_\_. No oropharyngeal \_\_\_\_\_. No signs of infection. Tongue is coated but tonsils are clear. NECK: Supple. No lymphadenopathy. No bruits. LUNGS: There is marked wheezing on \_\_\_\_\_ bilaterally. Some minimal evidence of consolidation in the lower \_\_\_\_\_ bilaterally. No rales or rubs. CARDIAC: Irregular rate and rhythm, variable S1 and S2. EXTREMITIES: Some pedal and ankle \_\_\_\_\_ noted in low extremities. No cyanosis or clubbing.

#### ASSESSMENT AND PLAN

1. Acute shortness of breath with a history of allergic \_\_\_\_\_. Rule out upper respiratory infection (URI). Will order chest x-ray stat.
2. Atrial fibrillation. Patient has a controlled rate. Will administer one dose of Lovenox overnight.
3. Mild symptoms of CHF due to lower extremity edema. Will administer Aldactone to bring this under control. Will \_\_\_\_\_ the patient's diuretic volume.
4. Plan to admit patient overnight for observation to await stat CXR result and to monitor the effects of \_\_\_\_\_ and anticoagulant therapies.

\_\_\_\_\_  
Joyce Mathers, MD Pulmonology

Place the following medical terms in context to complete the scenario below.

antibiotics | atelectasis | basal | COPD | dyspnea | hemoptysis | Oxygen | pleural | q.d. | thoracostomy | wheezing

#### RESPIRATORY SYSTEM – CONSULTATION REPORT

PATIENT NAME: Wayne SAUNDERS

AGE: 59

DOB: September 7

SEX: Male

DATE OF CONSULTATION: March 29

CONSULTANT: Joyce Mathers, MD, Pulmonology

REASON FOR CONSULTATION: Sudden onset dyspnea and respiratory distress.

HISTORY: This garrulous 59-year-old was seen in the ER today with a complaint of sudden onset \_\_\_\_\_ and some respiratory distress. Denies any nausea, vomiting, chest pain, \_\_\_\_\_, cough, fever or chills.

PAST HISTORY: Is positive for asthma and \_\_\_\_\_ as patient is a lifelong smoker at 1+ packs per day.

ASSESSMENT: CHEST has good air entry bilaterally. No \_\_\_\_\_. Bilateral \_\_\_\_\_ crackles are noted. Some dullness to percussion on the left. CT scan was ordered and shows a left \_\_\_\_\_ effusion and acute pneumothorax due to infectious process. Probable comprehensive \_\_\_\_\_.

#### MEDICATIONS

1. Adalat 30 mg \_\_\_\_\_
2. Atenolol 50 mg (half dose) q.d.

3. Flonase 50 mcg one spray on each side q.d.
4. Zolof 100 mg once q.d.

#### PLAN

1. Admit patient to the unit for treatment and possible left \_\_\_\_\_ if indicated by lack of improvement on standard therapy.
2. Treat with a course of \_\_\_\_\_ for the URI.
3. \_\_\_\_\_ therapy if indicated by O2 sats.
4. Repeat CT scan in 48 hours.

-----  
Joyce Mathers, MD, Pulmonology

Place the following medical terms in context to complete the scenario below.

apex | childhood | dyspnea | expiration | flu shot | hepatotoxis | myoplasmal | kidney | mid-thoracic | pulmonary | rales | rasping | respiratory | rhinorrhea | shadowing | urinalysis | vaccine | x-ray

#### RESPIRATORY SYSTEM – CONSULTATION REPORT

PATIENT NAME: Mateo DIAZ

AGE: 22

DOB: June 25

SEX: Male

DATE OF CONSULTATION: April 16

CONSULTING PHYSICIAN: Joyce Mathers, MD Pulmonology

HISTORY: This 22-year-old Hispanic gentleman is referred to me for a 2-week history of new rasping cough associated with a dull right \_\_\_\_\_ intercostal discomfort. He has some associated \_\_\_\_\_ on exertion but is otherwise well with no presenting symptoms of a cold or \_\_\_\_\_ infection. No fever, sputum or \_\_\_\_\_.

PAST HISTORY: He has a history of \_\_\_\_\_ asthma that seemed to disappear after he hit his mid-20s. He has a history of extensive travel for work and leisure and most recently was on a work trip to Wuhan, China in late December. He receives a \_\_\_\_\_ annually and did have the most recent \_\_\_\_\_ in October 2019.

His physical exam is relatively unremarkable. Blood pressure is 120/83, respirations 12. Temperature normal at 37. Chest exam is CTA with no \_\_\_\_\_, rhonchi or wheezes. Even on a forced exhalation, we could not reproduce the \_\_\_\_\_ cough symptom.

ASSESSMENT: A PA and lateral chest \_\_\_\_\_ revealed a new infiltrate and \_\_\_\_\_ along the left mid-lung margin all the way to the . Spirometry showed normal pressures on forced \_\_\_\_\_.

#### PLAN

1. Rule out \_\_\_\_\_ pneumonia versus other lung infection or infiltrates such as granulomatosis, aspergillosis or sarcoidosis.
2. CBC with differential, chem panel, ESR, ACE, \_\_\_\_\_ and mycoplasma titres.
3. Repeat full \_\_\_\_\_ function tests (PFTs) in 2 weeks.

If required, will treat with Amphotericin B, Tosufloxacin, Macrolide or similar. If any of these treatments are indicated,

weekly LFTs and \_\_\_\_\_ function testing will be required as these classes of drugs is notoriously \_\_\_\_\_ and nephrotoxic.

I will see the patient again in approximately 4 days to review the results and decide on a course of action – more testing or appropriate treatments as indicated above.

-----  
Joyce Mathers, MD Pulmonology

Test your knowledge by answering the questions below.

A small bulbous, teardrop-shaped structure located at the apex of the soft palate...

1. Posterior
2. Lymphocytes
3. Uvula

Located at the anterior region of the nasal cavity and is composed of bone...

1. Fauces
2. Glottis
3. Hard palate

A ridge of cartilage that separates the two main bronchi...

1. Carina
2. Alveolar Duc
3. Eupnea

Serves as an airway and is continuous with the nasal cavity

1. Conducting zone
2. Hilum
3. Nasopharynx

Consists of the surface and skeletal structures that result in the outward appearance of the nose and contribute to its numerous functions...

1. Pharynx
2. Inferior
3. External nose



## 5. Urinary System

Topic: **Urinary System**

Text Reference: **Chapter 5. Urinary System**

Objectives: **Students should be able to...**

### Identify meanings of key word components of the urinary system

#### Prefixes

a- (absence of, without)

an- (absence of, without)

dia- (through, complete)

dys- (painful, abnormal, difficult, labored)

poly- (many, much)

#### Combining Forms

albumin/o (albumin)

azot/o (urea, nitrogen)

blast/o (developing cell, germ cell)

cyst/o (bladder, sac)

glomerul/o (glomerulus)

glyc/o (sugar)

glycos/o (sugar)

hydr/o (water)

lith/o (stone, calculus)

meat/o (meatus)

nephr/o (kidney)

noct/i (night)  
olig/o (few, scanty)  
pyel/o (renal pelvis)  
py/o (pus)  
ren/o (kidney)  
ureter/o (ureter)  
urethr/o (urethra)  
urin/o (urine, urinary tract)  
ur/o (urine, urinary tract)  
vesic/o (bladder, sac)

## Suffixes

-al (pertaining to)  
-ary (pertaining to)  
-cele (hernia, protrusion)  
-emia (in the blood)  
-gram (the recorded radiographic image)  
-graph (instrument used to record)  
-graphy (process of recording, radiographic imaging)  
-iasis (condition)  
-esis (condition)  
-itis (inflammation)  
-lith (stone)  
-lysis (loosening, dissolution, separating)  
-megaly (enlarged, enlargement)  
-oma (tumour, swelling)  
-osis (abnormal condition)  
-pexy (surgical fixation, suspension)  
-ptosis (drooping, sagging, prolapse)

- rrhaphy (suturing, repairing)
- scope (instrument used for visual examination)
- scopic (pertaining to visual examination)
- scopy (visual examination)
- stomy (creation of an artificial opening)
- tomy (cut into, incision)
- tripsy (surgical crushing)
- uria (urine, urination)

**Apply the rules of medical language to pronounce, break into word parts, and define the following terms.**

Label each word part by using the following abbreviations:

P = Prefix  
 WR = Word Root  
 CV = Combining Vowel  
 S = Suffix  
 CF = Combining Form

Example: osteoarthropathy (ă-stē-ō-ăr-THROP-ă-thē) – disease of bone and joint

WR   CV   WR   CV   S  
 oste / o / arthr / o / pathy  
       CF            CF

albuminuria (al-bū-mī-NOO-rē-ă)

anuria (ă-NOOR-ē-ă)

azotemia (ăz-ō-TĒ-mē-ă)

cystectomy (sis-TĒK-tō-mē)

cystitis (sis-TĪT-is)

cystogram (SĪS-tō-grăm)

cystography (sis-TŌG-ră-fē)

cystolithotomy (sis-tō-lī-THOT-ō-mē)

cystorrhaphy (sist-OR-ă-fē)

cystoscope (SIST-ö-sköp)  
cystoscopy (sis-TOS-kö-pē)  
cystostomy (sis-TÖS-tō-mē)  
cystotomy (sis-TOT-ö-mē)  
cystocele (SIS-tō-sēl)  
cystolith (SĪS-tō-līth)  
diuresis (dī-yŭ-RĒ-sīs)  
dysuria (dis-ŪR-ē-ă)  
glomerulonephritis (glō-mer-yŭ-lō-ně-FRĪT-īs)  
glycosuria (glī-kō-SHOOR-ē-ă)  
hematuria (hē-mă-TOOR-ē-ă)  
hydronephrosis (hī-drō-něf-RŌ-sīs)  
lithotripsy (LITH-ö-trip-sē)  
meatotomy (mē-ă-TOT-ö-mē)  
meatal (mē-Ā-tăl)  
nephrectomy (ně-FREK-tō-mē)  
nephritis (ně-FRĪT-īs)  
nephrography (ně-FRÖG-ră-fē)  
nephrolithiasis (nef-rō-li-THĪ-ă-sīs)  
nephroma (ně-FRŌ-mă)  
nephromegaly (něf-rō-MĚG-ă-lē)  
nephroptosis (něf-röp-TŌ-sīs)  
nephrolithotomy (něf-rō-lī-THÖT-ō-mē)  
nephrolithotripsy (něf-rō-LITH-ö-trip-sē)  
nephrologist (ně-FRÖL-ō-jĭst)  
nephrology (ně-FRÖL-ă-jē)  
nephrolysis (ně-FROL-ī-sīs)  
nephroma (ně-FRŌ-mă)  
nephromegaly (něf-rō-MĚG-ă-lē)

nephropexy (NĚF-rō-pěks-ē)  
 nephroptosis (něf-rōp-TŌ-sīs)  
 nephrostomy (ně-FRŌS-tō-mē)  
 nephroscopy (ně-FRŌS-skō-pē)  
 nephrosonography (ně-FRŌ-sō-NOG-ră-fē)  
 nocturia (nők-TŪ-rē-ă)  
 oliguria (öl-ĩ-GŪ-rē-ă)  
 polyuria (pol-ē-ŪR-ē-ă)  
 pyelitis (pī-ě-LĪT-īs)  
 pyelonephritis (pī-ě-lō-ně-FRĪT-īs)  
 pyelolithotomy (pī-ě-lō-līth-ŌT-ō-mē)  
 pyeloplasty (PĪ-ě-lō-plās-tē)  
 pyuria (pī-ŪR-ē-ă)  
 renogram (RĚ-nō-gram)  
 retrograde urogram (RE-trō-grād Ū-rō-grām)  
 ureterectomy (ũ-rē-těr-ĚK-tō-mē)  
 ureteritis (ũ-rē-těr-Ī-tīs)  
 ureterocele (ũ-RĚ-těr-ō-sěl)  
 ureterolithiasis (ũ-rē-těr-ō-līth-Ī-ās-īs)  
 ureteroscopy (ũ-RĚT-ě-rō-skōp-ē)  
 ureterostomy (ũ-rē-těr-ŌS-tō-mē)  
 ureterstenosis (ũ-rē-těr-stě-NŌ-sīs)  
 urethrocystitis (ũ-rē-thrō-sīs-TĪ-tīs)  
 urinary (Ū-rĩ-nār-ē)  
 urogram (Ū-rō-grām)  
 urologist (ũ-RŌL-ō-jīst)  
 urology (ũ-RŌL-ă-jē)  
 vesicotomy (věs-ĩ-KŌT-ō-mē)

## Practice pronouncing and defining these medical terms that are not easily broken into word parts.

deamination (dē-am-ĭ-NĀ-shŏn)

distended (dis-TEN-ded)

enuresis (en-ū-RĒ-sĭs)

hemodialysis (HD) (hē-mō-dī-ĀL-ĭ-sĭs)

hydrostatic (hĭ-drō-STAT-ik)

incontinence (in-KONT-ĭn-ĕns)

micturate (MĪK-tū-rāt)

sphincter (SFĪNK-tĕr)

stricture (STRIK-chŭr)

urinal (Ū-rĭn-ăl)

void (VOYD)

## Practice pronouncing and defining these commonly abbreviated terms.

ARF (acute renal failure)

BUN (blood urea nitrogen)

cath (catheter, catheterization)

CKD (chronic kidney disease)

ESRD (end-stage renal disease)

ESWL (extracorporeal shock wave lithotripsy)

HD (hemodialysis)

KUB xray (kidney, ureter, and bladder xray)

OAB (overactive bladder)

SG (specific gravity)

UA (urinalysis)

UTI (urinary tract infection)

VCUG (voiding cystourethrogram)

Sort the terms from the word lists above into the following categories.

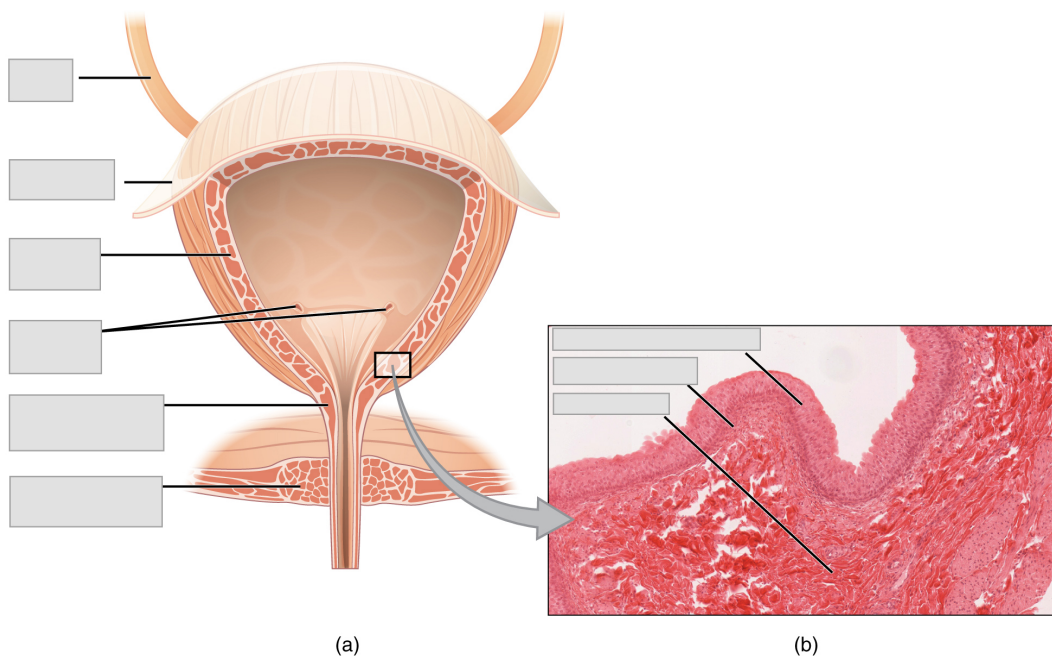
- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)
- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

Use terms related to the urinary system.

Label the following urinary system bladder anatomy.

detrusor muscle | external urethral sphincter | internal urethral sphincter | lamina propia | peritoneum | submucosa

Bladder anatomy. Image adapted from Betts et al., 2021. CC BY 4.0.



Place the following medical terms in context to complete the scenario below.

bladder | draped | fragmented | lumen | prepped | proximal | recovery | ureteral

URINARY SYSTEM – OPERATIVE REPORT

PATIENT NAME: Cindy WARD

AGE: 48

DOB: September 19

SEX: Female

DATE OF SURGERY: January 8

SURGEON: Steve Foster, MD, Urologist

ASSISTANT: Michelle Stevenson, MD

ANESTHESIOLOGIST: Ryan Haywood, MD

ANESTHESIA: General

PREOPERATIVE DIAGNOSIS: Left proximal ureteral stones.

POSTOPERATIVE DIAGNOSIS: Left proximal ureteral calculi.

INDICATIONS: The patient is a 48-year-old female with a history of kidney stone disease, who has severe left flank pain and was found to have an obstructing large left proximal \_\_\_\_\_ stone.

OPERATIVE PROCEDURE: After induction of general anesthesia, the patient was placed in the lithotomy position. Patient was \_\_\_\_\_ and \_\_\_\_\_ in the usual sterile fashion. A #19-French cystoscope was inserted under camera vision. The urethra was unremarkable. The scope was passed into the bladder. The \_\_\_\_\_ mucosa was normal throughout. Under fluoroscopic control, a guidewire was placed up the left ureter and bypassed the stone. This was difficult at first, but the guidewire was eventually manipulated around the stone into the \_\_\_\_\_ collecting system. A rigid ureteroscope was then negotiated up the left ureter alongside the guidewire up to the stone, which was at the junction.

The stone was quite large and occupied the entire \_\_\_\_\_ of the ureter. Lithotripsy was then performed under camera vision. Using the Holmium laser, the stone was \_\_\_\_\_ into multiple fragments, all of which were then individually basketed. Some of the stones were sent for analysis. Further ureteroscopy up to the kidney failed to reveal any significant sized fragments. Therefore, the ureteroscope was removed.

The procedure was tolerated by the patient without complications. The patient was taken to the \_\_\_\_\_ room in stable condition.

-----  
Steve Foster, MD, Urologist

Place the following medical terms in context to complete the scenario below.

dysuria | foul | leukorrhea | nausea | pain | shortness | Urinalysis | urine | UTIs

#### URINARY SYSTEM – CONSULTATION REPORT

PATIENT NAME: Renee WOODS

AGE: 32

SEX: Female

DOB: June 17

DATE OF CONSULTATION: January 8

CONSULTING PHYSICIAN: Steve Foster, MD, Urology

REASON FOR CONSULTATION: Urinary Tract Infection.

HISTORY: The patient is a 32-year-old female who is complaining of pain on urinating. Patient states it began approximately 3 days ago. The patient describes symptoms of \_\_\_\_\_ and increased frequency to the washroom. Patient states they usually go to the washroom to urinate 4-5 times a day, but starting 3 days ago, she started going 10-12 times per day. Sometimes no \_\_\_\_\_ comes out. The urine has a \_\_\_\_\_ odor and is cloudy. States there has



been lower abdomen \_\_\_\_\_ since yesterday, and says it is worse when she tries to go with no result. Patient has had the same sexual partner for 10 years. She has a history of \_\_\_\_\_ and feels this is the same.

PHYSICAL EXAMINATION: GENERAL: No weakness, or tiredness. VITALS: Blood pressure 120/80, heart rate 70 and respirations 16. Patient weighs 150 pounds. LUNGS: No cough or \_\_\_\_\_ of breath. GASTRO: Denies \_\_\_\_\_, vomiting or change in bowel habits.

URINARY/REPRODUCTIVE: Denies hematuria, or any \_\_\_\_\_.

ASSESSMENT: Did a urinalysis on patient. \_\_\_\_\_ revealed leukocytes 3+.

PLAN

1. Treat with Ampicillin 400 mg q.i.d.
2. Return to office if no improvement within 48 hours.

-----  
Steve Foster, MD, Urology

Test your knowledge by answering the questions below.

The removal of an amino group from a molecule...

1. Deamination
2. Calyces
3. Voiding

A measure of how acidic or alkaline a substance is, as determined by the number of free hydrogen ions in the substance...

1. pH
2. Apical
3. Osmosis

Relating to the equilibrium of liquids and the pressure exerted by liquid at rest...

1. Solutes
2. Hydrostatic
3. Mitochondria

The outermost layer of the wall of a blood vessel...

1. Hydrostatic
2. Adventitial
3. Pseudostratified

Any of a group of compounds with varying hormone-like effects...

1. Solutes
2. Prostaglandins
3. Excretion



## 6. Male Reproductive System

Topic: **Male Reproductive System**

Text Reference: **Chapter 6. Male Reproductive System**

Objectives: **Students should be able to...**

### Identify meanings of key word components of the male reproductive system

#### Prefixes

a- (absence of, without)

an- (absence of, without)

crypt- (hidden)

dys- (painful, difficult)

en- (in)

epi- (above)

hyper- (above, excessive)

hypo- (below)

par- (near)

trans- (through, across, beyond)

#### Combining Forms

andr/o (male)

balan/o (glans penis)

epididym/o (epididymis)

gonad/o (gonad)

orch/o (testis, testicle)

orchi/o (testis, testicle)

orchid/o (testis, testicle)

pen/o (penis)

pen/i (penis)

phall/o (penis)

preputi/o (prepuce, foreskin)

posth/o (prepuce, foreskin)

prostat/o (prostate gland)

scrot/o (scrotum)

semin/i (semen)

sperm/o (sperm, spermatozoon)

spermat/o (sperm, spermatozoon)

test/o (testis, testicle)

testicular/o (testis, testicle)

vas/o (vas deferens, vessel, duct)

vesicul/o (seminal vesicle)

urethr/o (urethra)

## Suffixes

-al (pertaining to)

-algia (pain)

-ar (pertaining to)

-atic (pertaining to)

-cision (processing of cutting)

-ectomy (excision or surgical removal)

-ferous (pertaining to)

-genesis ((beginning, development, or production))

-gram (record)

-graphy (process of recording)

-ia (diseased state, abnormal state, condition of, condition)

- ic (pertaining to)
- ile (pertaining to)
- ism (state of, condition)
- itis (inflammation)
- logy (study of)
- lysis (loosening, dissolution, separating)
- oma (tumor, mass)
- ous (pertaining to)
- pathy (disease)
- pexy (surgical fixation, suspension)
- plasia (development, growth)
- plasty (surgical repair)
- rrhea (flow, discharge)
- sis (condition)
- stomy (creation of new opening, process of new opening)
- tion (process of)
- tomy (cut into, incision)

**Apply the rules of medical language to pronounce, break into word parts, and define the following terms.**

Label each word part by using the following abbreviations:

P = Prefix  
 WR = Word Root  
 CV = Combining Vowel  
 S = Suffix  
 CF = Combining Form

Example: osteoarthropathy (ă-stē-ō-ăr-THROP-ă-thē) – disease of bone and joint

WR   CV   WR   CV   S  
 oste / o / arthr / o /pathy  
 CF            CF

andropathy (ăn-DROP-ă-thê)  
 anorchism (ă-NOR-kízm)  
 aspermia (ă-SPĚR-mē-ă)  
 balanitis (bal-ă-NĪT-ís)  
 balanorrhea (BAL-ă-nō-RĚ-ă)  
 balanoplasty (BAL-ă-nō-plăs-tê)  
 benign prostatic hyperplasia (BPH) (bê-NĪN prôs-TĀT-ík hī-pěr-PLĀ-zhē-ă)  
 cryptorchidism (krip-TOR-kíd-izm)  
 epididymectomy (ěp-ĩ-díd-ĩ-MĚK-tō-mē)  
 epididymitis (ep-ĩ-did-ĩ-MĪT-ís)  
 oligospermia (öl-ĩ-gō-SPĚR-mē-ă)  
 orchialgia (or-kē-ĀL-jē-ă)  
 orchiditis (or-kĩ-DĪ-tís)  
 orchiectomy (or-kē-EK-tō-mē)  
 orchiepididymitis (or-kē-ěp-ĩ-díd-ĩ-MĪ-tís)  
 orchiopexy (or-kē-ō-PĚK-sē)  
 orchioplasty (OR-kē-ō-plăs-tê)  
 orchiotomy (or-kē-ŌT-ō-mē)  
 orchitis (or-KĪ-tís)  
 prostatitis (pros-tă-TĪT-ís)  
 prostatocystitis (pros-tă-tō-sís-TĪ-tís)  
 prostatolith (prôs-TĀT-ō-líth)  
 prostatolithotomy (prôs-tăt-ō-lĩ-THŌT-ō-mē)  
 prostatorrhea (pros-tă-tō-RĚ-ă)  
 prostatovesiculitis (pros-tă-tō-vē-sík-ũ-LĪ-tís)  
 spermatolysis (spěr-mă-TŌL-ĩ-sís)  
 transurethral (trans-ũ-RĚ-thrăl)  
 vasectomy (vă-SEK-tō-mē)  
 vesiculectomy (vě-sik-yŭ-LEK-tō-mē)

vasovasostomy (vā-zō-vā-ZOS-tō-mē)

**Practice pronouncing and defining these medical terms that are not easily broken into word parts.**

ablation (a-BLĀ-shŏn)

acquired immunodeficiency syndrome (AIDS) (ă-KWĪRD im-yŭ-nō-dě-FISH-ĕn-sē SĪN-drŏm)

artificial insemination (art-ĭ-FISH-ăl in-sem-ĭ-NĀ-shŏn)

azoospermia (ā-zō-ŏ-SPĒR-mē-ă)

chlamydia (klă-MID-ē-ă)

circumcision (sĭr-kŭm-SIZH-ŏn)

coitus (KŌ-ĭ-tŭs)

condom (KON-dŏm)

ejaculation (i-jak-yŭ-LĀ-shŏn)

enucleation (ē-nŭ-klē-Ā-shŭn)

erectile dysfunction (ED) (ĕ-RĒK-tĭl dis-FŬNGK-shŏn)

genital herpes (JEN-ĭt-ăl HĒRP-ēz)

gonorrhea (gon-ŏ-RĒ-ă)

human immunodeficiency virus (HIV) (hu-man im-yŭ-nō-dě-FISH-ĕn-sē VĪ-rŭs)

human papillomavirus (HPV) (hu-man PAP-ĭ-LŌ-mă-VĪ-rŭs)

hydrocele (HĪ-drŏ-sĕl)

hydrocelectomy (hĭ-drŏ-sĕ-LĒK-tō-mē)

infertility (in-fĕr-TIL-ĭt-ē)

metastasis (mĕ-TAS-tă-sĭs)

morcellation (mor-sĕ-LĀ-shŏn)

MRI ultrasound fusion biopsy (FŬ-zhŏn BĪ-op-sē)

orgasm (OR-gazm)

phimosis (fĭ-MŌ-sĭs)

priapism (PRĪ-ă-pizm)

prostate cancer (PROS-tăt KAN-sĕr)

puberty (PŪ-běrt-ē)  
robotic surgery (rō-BŎ- tĭk SŮRJ-ě-rē)  
sexually transmitted disease (STD) (SEKS-ŭ-ă-lē trāns-MĪT-ed diz-ĒZ)  
spermatocele (spěr-MĀT-ō-sēl)  
sterility (stě-RIL-īt-ē)  
sterilization (ster-ĭ-lĭ-ZĀ-shŏn)  
syphilis (SIF-ĭ-lĭs)  
testicular cancer (tēs-TĪK-ŭ-lār KAN-sěr)  
testicular torsion (tēs-TĪK-ŭ-lār TOR-shŏn)  
transurethral (trans-ŭ-RĒ-thrāl)  
transurethral incision of the prostate gland (TUIP)  
transurethral resection of the prostate gland (TURP)  
transurethral microwave thermotherapy (TUMT)  
trichomoniasis (trĭk-ō-mō-NĪ-ă-sĭs)  
varicocele (VAR-ĭō-sēl)

**Practice pronouncing and defining these common abbreviations.**

## Male Reproductive System Abbreviations

AIDS (acquired immunodeficiency syndrome)  
BPH (benign prostatic hyperplasia, benign prostatic hypertrophy)  
Bx (biopsy)  
DRE (digital rectal examination)  
ED (erectile dysfunction)  
GU (genitourinary)  
HIV (human immunodeficiency virus)  
HoLEP (holmium laser enucleation of the prostate gland)  
HPV (human papillomavirus)  
HSV-2 (herpes simplex virus 2)



LUTS (lower urinary tract symptoms)  
PSA (prostate-specific antigen)  
PVP (photoselective vapourization of the prostate gland)  
RP (radical prostatectomy)  
STD (sexually transmitted disease)  
STI (sexually transmitted infection)  
TRUS (transrectal ultrasound)  
TSE (testicular self-examination)  
TUIP (transurethral incision of the prostate gland)  
TUMT (transurethral microwave thermotherapy)  
TURP (transurethral resection of the prostate gland)  
VD (venereal disease)

## Reproductive Sexually Transmitted Infections (STIs) Abbreviations

AB (Antibiotic)  
CT (Chlamydia)  
GC (Gonorrhea)  
HPV (Human Papillomavirus)  
HSV (Herpes Simplex Virus)  
PID (Pelvic Inflammatory Disease)  
STD (Sexually Transmitted Diseases)  
STI (Sexually Transmitted Infections)

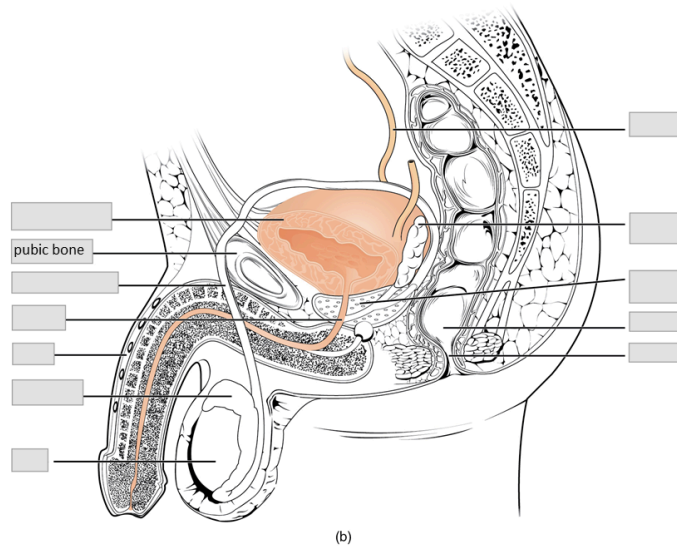
**Sort the terms from the word lists above into the following categories.**

- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)
- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

## Use terms related to the male reproductive system.

Label the following male reproductive system anatomy.

anus | epididymis | penis | prostate gland | rectum | seminal vesicle | testis | ureter | urethra | urinary bladder | vas deferens



Male reproductive system anatomy. Image adapted from Betts et al., 2021. CC BY 4.0.

Place the following medical terms in context to complete the scenario below.

by mouth | circumcised | complete | prostatitis | Urethral

### MALE REPRODUCTIVE SYSTEM – MEDICAL REPORT

PATIENT NAME: George SMITH

AGE: 57

SEX: Male

HISTORY (Hx): George Smith is a 57-year-old male who was referred to the urologist for a vasectomy.

FAMILY HISTORY: Has three living children. Occasional condom use for birth control.

### PAST HISTORY

1. Herpes Simplex Virus-2 (HSV-2) diagnosis (Dx) in 2002 and treated sexually transmitted infection (STI) in 2014.
2. Transurethral resection of the prostate (TURP) in 2019.
3. Current prostate specific antigen (PSA) is 15.6, with a previous result of 4.2.

PHYSICAL EXAMINATION/ASSESSMENT: Upon examination, normal male anatomy with \_\_\_\_\_ penis, normal foreskin and one testicle is descended. Leukorrhea is evident from the tip of the urethral os.

Complains of (c/o) urinary retention, nocturia and dysuria. He has had unprotected sexual intercourse four days ago. Digital rectal exam (DRE) indicated \_\_\_\_\_ with proctalgia.

#### DIAGNOSIS (Dx)

1. Urethral swab for gonorrhea/chlamydia (GC/CT).
2. Serology: PSA, \_\_\_\_\_ blood count (CBC).
3. Urine: Urinalysis, GC/CT, culture and sensitivity (C&S).
4. Sonography for the undescended testicle.

#### MEDICATIONS (Rx)

1. Ceftriaxone 250 mg intramuscular immediately (IM STAT)
2. Azithromycin 1 g \_\_\_\_\_ immediately (po STAT)

#### PRELIMINARY CONCERNS

1. Rising PSA.
2. \_\_\_\_\_ discharge.
3. Undescended.

FOLLOW UP: Call office in 5 days for test results and follow up appointment in 2 weeks to discuss further booking of vasectomy and potential Bx (biopsy) of prostate.

\_\_\_\_\_  
Steve Fosters, MD, Urology

Test your knowledge by answering the questions below.

The reproductive organs (testes in men and ovaries in women) that produce gametes and reproductive hormones...

1. Penis
2. Semen
3. Gonads

The transformation of spermatids to spermatozoa during spermatogenesis...

1. Spermiogenesis
2. Ductus deferens
3. Prepuce

Glands that secrete a lubricating mucus that cleans and lubricates the urethra prior to and during ejaculation

1. Bulbourethral glands
2. Scrotum

### 3. Testes

A doughnut-shaped gland at the base of the bladder surrounding the urethra and contributing fluid to semen during ejaculation

1. Epididymis
2. Prostate gland
3. Seminal vesicle

Opening in the abdominal wall that connects the testes to the abdominal cavity...

1. Sertoli cells
2. Inguinal canal
3. Gamete

# 7. Female Reproductive System

Topic: **Female Reproductive System**

Text Reference: **Chapter 7. Female Reproductive System**

Objectives: **Students should be able to...**

## Identify meanings of key word components of the female reproductive system

### Prefixes

a- (absence of, without)

an- (absence of, without)

dys- (painful, difficult, abnormal, labored)

endo- (within)

peri- (surrounding)

### Combining Forms

arche/o (first, beginning)

cervic/o (cervix)

colp/o (vagina)

endometri/o (endometrium)

episi/o (vulva)

gyn/o (woman)

gynec/o (woman)

hymen/o (hymen)

hyster/o (uterus)

mamm/o (breast)

mast/o (breast)

men/o (menstruation)  
metr/i (uterus)  
metr/o (uterus)  
oophor/o (ovary)  
pelv/i (pelvis, pelvic bones, pelvic cavity)  
perine/o (perineum)  
salping/o (uterine tube, fallopian tube)  
trachel/o (cervix)  
vagin/o (vagina)  
vulv/o (vulva)

## Suffixes

-al (pertaining to)  
-atresia (occlusion, closure)  
-clesis (surgical closure)  
-ectomy (excision, surgical removal)  
-gram (the record, radiographic image)  
-graphy (process of recording, radiographic imaging)  
-itis (inflammation)  
-logist (specialist or physician who studies and treats)  
-logy (study of)  
-osis (abnormal condition)  
-pexy (surgical fixation, suspension)  
-plasty (surgical repair)  
-rrhaphy (suturing, repairing)  
-rrhea (flow, discharge)  
-salpinx (uterine tube)  
-scope (instrument used for visual examination)  
-scopy (visually examining)

-tomy (cut into, incision)

**Apply the rules of medical language to pronounce, break into word parts, and define the following terms.**

Label each word part by using the following abbreviations:

P = Prefix

WR = Word Root

CV = Combining Vowel

S = Suffix

CF = Combining Form

Example: osteoarthropathy (ă-stē-ō-ăr-THROP-ă-thē) – disease of bone and joint

WR   CV   WR   CV   S

oste / o / arthr / o /pathy

CF            CF

amenorrhea (ā-men-ō-RĒ-ă)

cervicitis (sĕr-vī-SĪ-tīs)

colpocleisis (kol-pō-KLĪ-sīs)

colpoperineorrhaphy (kol-pō-per-ĭ-nē-OR-ă-fē)

colpoplasty (KŌL-pō-plās-tē)

colporrhaphy (kol-POR-ă-fē)

colposcope (KŌL-pō-skōp)

colposcopy (kōl-PŌS-kō-pē)

dysmenorrhea (dis-men-ō-RĒ-ă)

endocervical (en-dō-SĔR-vi-kāl)

endometritis (e-dō-mĕ-TRĪT-is)

endometriosis (en-dō-mĕ-trĕ-Ō-sīs)

episioperineoplasty (i-piz-ē-ō-per-ĭ-NĒ-ō-plas-tē)

episiorrhaphy (epĕ-sē-OR-ă-fē)

gynecologist (gĭn-ĕ-KOL-ŏ-jĭst)

gynecology (gĭ-nĕ-KOL-ŏ-jĕ)

gynopathic (gī-nō-PATH-ĭk)  
hematosalpinx (hē-măt-ŏ-SAL-pingks)  
hydrosalpinx (hī-drō-SĀL-pĭnks)  
hymenectomy (hī-mĕn-ĔK-tō-mē)  
hymenotomy (hī-mē-NOT-ŏ-mē)  
hysterectomy (his-tĕ-REK-tō-mē)  
hysteropexy (his-tĕ-RŌ-pĕks-ē)  
hysterosalpingo-oophorectomy (hist-ĕ-rō-sal-ping-gō-ŏ-ŏ-fŏ-REK-tō-mē)  
hysterosalpingogram (HSG) (his-tĕ-rō-sal-PING-ŏ-gram)  
hysteroscope (HIS-tĕ-rō-skōp)  
hysteroscopy (his-tĕ-ROS-kŏ-pē)  
leukorrhea (loo-kŏ-RĒ-ă)  
mammogram (MĀM-ŏ-grām)  
mammography (ma-MOG-ră-fē)  
mammoplasty (MAM-ă-plas-tē)  
mastalgia (mas-TAL-jă)  
mastectomy (mas-TEK-tō-mē)  
mastitis (mas-TĪT-ĭs)  
mastopexy (MAS-tŏ-pek-sē)  
menarche (mĕn-ĀR-kē)  
menometrorrhagia (mĕn-ŏ-mĕt-rō-RĀ-jē-ă)  
menorrhagia (mĕn-ŏ-RĀ-jē-ă)  
metrorrhagia (mē-trō-RĀ-jă)  
myometritis (mī-ŏ-mē-TRĪ-tĭs)  
oligomenorrhea (ŏl-ĭ-gō-mĕn-ŏ-RĒ-ă)  
oophorectomy (ŏ-ŏ-fŏ-REK-tō-mē)  
oophoritis (ŏ-ŏf-ŏ-RĪ-tĭs)  
pelviscopic (pĕl-VĪS-kŭ-pĭk)  
pelviscopy (pĕl-VĪS-kŭ-pē)



perimetritis (per-ĭ-mē-TRĪT-ĭs)  
perineorrhaphy (pĕr-ĭ-nē-OR-ă-fē)  
pyosalpinx (pī-ō-SĀL-pĭnks)  
salpingectomy (sal-pĭn-JEK-tō-mē)  
salpingitis (sāl-pĭn-JĪ-tĭs)  
salpingo-oophorectomy (sāl-pĭng-gō-ō-ōf-ō-RĚK-tō-mē)  
salpingostomy (sāl-pĭng-ŌS-tō-mē)  
sonohysterography (SHG) (sō-nō-his-tĕ-ROG-ră-fē)  
trachelectomy (trak-ĕ-LEK-tō-mē)  
trachelorrhaphy (trā-kĕl-OR-ă-fē)  
vaginal (VAJ-ĭn-ăl)  
vaginitis (vaj-ĭ-NĪT-ĭs)  
vaginosis (vaj-ĭ-NŌ-sĭs)  
vesicovaginal (vēs-ĭ-kō-VĀJ-ĭ-năl)  
vulvovaginitis (vŭl-vō-văj-ĭ-NĪ-tĭs)  
vulvectomy (vŭl-VĚK-tō-mē)  
vulvovaginal (vŭl-vō-VĀJ-ĭ-năl)

**Practice pronouncing and defining these medical terms that are not easily broken into word parts.**

adenomyosis (ad-ĕ-nō-mī-Ō-sis)  
anovulation (an-ov-yŭ-LĀ-shŏn)  
Bartholin's glands (BAR-tō-lĭns glăns)  
breast cancer (brest KAN-sĕr)  
cervical cancer (SĚR-vi-kăl KAN-sĕr)  
contraception (kon-tră-SEP-shŏn)  
dyspareunia (dis-pă-ROO-nē-ă)  
endometrial cancer (en-dō-MĒ-trĕ-ăl KAN-sĕr)  
fibrocystic breast changes (FCC) (fĭ-brō-SĪS-tĭk brest)

fistula (FIS-chŭ-lă)  
hormonal replacement therapy (HRT)  
menopause (MEN-ŏ-poz)  
oligoovulation (ol-i-gō-ov-yŭ-LĀ-shŏn)  
ovarian cancer (ō-VAR-ē-ăn KAN-sēr)  
ovulation (ov-yŭ-LĀ-shŏn)  
papanicolaou Smear (păp-ă-NĒ-kă-low smēr)  
pelvic inflammatory disease (PID)  
polycystic ovary syndrome (PCOS) (pŏl-ē-SĪS-tĭk Ō-vă-rē SĪN-drŏm)  
premenstrual syndrome (prē-MĒN-stroo-ăl SĪN-drŏm)  
prolapse (PRŌ-laps)  
speculum (SPEK-yŭ-lŭm)  
toxic shock syndrome  
tubal ligation (TOO-băl lĭ-GĀ-shŏn)  
uterine fibroid (ŪT-ĕ-rĭn FIB-royd)  
uterine prolapse (ŪT-ĕ-rĭn PRŌ-laps)  
vaginal fistula (VAJ-ĭn-ăl FIS-chŭ-lă)

**Practice pronouncing and defining these commonly abbreviated terms.**

## Female Reproductive System Term Abbreviations

BC (birth control)  
Cx (cervix)  
D&C (dilation and curettage)  
FCC (fibrocystic breast changes)  
GYN (gynecology)  
HPV (human papillomavirus)  
HRT (hormone replacement therapy)  
HSG (hysterosalpingogram)

IUD (intrauterine device)

LAVH (laparoscopically assisted vaginal hysterectomy)

PCOS (polycystic ovarian syndrome)

PID (pelvic inflammatory disease)

PMS (premenstrual syndrome)

SHG (sonohysterography)

TAH/BSO (total abdominal hysterectomy/bilateral salpingo-oophorectomy)

TLH (total laparoscopic hysterectomy)

TSS (toxic shock syndrome)

TVH (total vaginal hysterectomy)

TVS (transvaginal sonography)

UAE (uterine artery embolization)

## Reproductive Sexually Transmitted Infections (STI) Abbreviations

AB (Antibiotic)

CT (Chlamydia)

GC (Gonorrhea)

HPV (Human Papillomavirus)

HSV (Herpes Simplex Virus)

PID (Pelvic Inflammatory Disease)

STD (Sexually Transmitted Diseases)

STI (Sexually Transmitted Infections)

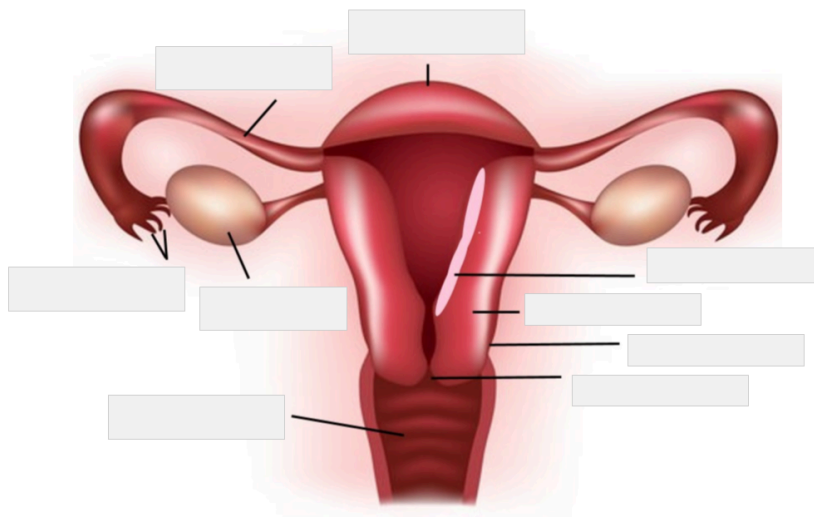
**Sort the terms from the word lists above into the following categories.**

- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)
- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

## Use terms related to the female reproductive system.

Label the following female reproductive system anatomy.

cervix | endometrium | fimbriae | fundus | myometrium | ovary | perimetrium | uterine tube | vagina



*Female reproductive organs. Image adapted from Lauren Guerin, 2018, CC BY-NC.*

Place the following medical terms in context to complete the scenario below.

cysts | dysmenorrhea | endometrial | endometriosis | laparoscopy | pain | pelvis | tissue | transvaginal

### FEMALE REPRODUCTIVE SYSTEM – MEDICAL REPORT

PATIENT NAME: Stacey ROBERTS

AGE: 28 Sex: Female

DOB: October 27

DATE OF ASSESSMENT: July 22

ADMITTING PHYSICIAN: Adam Vance, MD, Gynecology

DIAGNOSIS: Endometriosis

HISTORY: This 28-year-old white female came to me with symptoms of \_\_\_\_\_. She presented with \_\_\_\_\_, menorrhagia, and pain with intercourse.

PHYSICAL EXAMINATION: During a \_\_\_\_\_ exam, abnormalities were felt. A \_\_\_\_\_ ultrasound was performed, and \_\_\_\_\_ were identified.

TREATMENT: I have discussed the results of the ultrasound and have recommended a laparoscopy to provide more

information on the location, extent, and size of the \_\_\_\_\_ implants. A \_\_\_\_\_ sample will be sent for further testing. If possible, the endometriosis implants will be removed.

PLAN: Ms. Roberts has agreed to the laparoscopy. I have prescribed Orilissa to help with the \_\_\_\_\_. My office will set up an appointment for the \_\_\_\_\_.

\_\_\_\_\_  
Adam Vance, MD, Gynecology

Place the following medical terms in context to complete the scenario below.

abdominal | auscultation | Blood pressure | chronic | edema | menorrhagia | murmur | oophoritis | ovarian | RLQ | spotting | urination

#### FEMALE REPRODUCTIVE SYSTEM – MEDICAL REPORT

PATIENT NAME: Megan WESTOVER

AGE: 29

SEX: Female

DOB: November 22

DATE OF ASSESSMENT: June 4

ATTENDING PHYSICIAN: Adam Vance, MD, Gynecology

HISTORY: A 29-year-old woman complains of right \_\_\_\_\_ pain. She has fever with chills, nausea, and pain during \_\_\_\_\_ for 3 days. She is in the 4th day of her menstrual cycle and has \_\_\_\_\_. She has had intermenstrual \_\_\_\_\_ for the last 3 menstrual cycles. She had a hysterectomy due to a breast cancer 9 years ago. She has no other history of \_\_\_\_\_ illness.

PHYSICAL AND EXAMINATION: VITAL SIGNS: Temperature 102.2, \_\_\_\_\_ 115/75, and pulse 92, regular. Respiratory rate 16. LUNGS: Normal breath sounds. HEART: No \_\_\_\_\_, regular rhythm. ABDOMEN: There is a tenderness to deep palpation in the \_\_\_\_\_. Pain triggers when the patient bends forward. Normal to \_\_\_\_\_. BACK: No flank tenderness. EXTREMITIES: Normal with no \_\_\_\_\_.

LABORATORY: No UTI, urinalysis done in the clinic negative.

ASSESSMENT: Rule out \_\_\_\_\_. No evidence of UTI currently.

#### PLAN

1. CBC lab testing.
2. Pelvic ultrasound focused on \_\_\_\_\_ structures, transvaginal ultrasound.
3. Begin treatment empirically with Ampicillin 500 mg daily.
4. Follow up with the patient after the blood and ultrasound results.

\_\_\_\_\_  
Adam Vance, MD, Gynecology

Place the following medical terms in context to complete the scenario below.

breast | chemotherapy | cyanosis | distended | erythema | HEENT | lesion | mastectomy | murmurs | Weight |

FEMALE REPRODUCTIVE SYSTEM – CONSULTATION REPORT

PATIENT NAME: Abigail LANGMAN

AGE: 51

SEX: Female

DOB: July 27

DATE OF CONSULTATION: October 8

CONSULTING PHYSICIAN: Adam Vance, MD, OB/GYN

REASON FOR CONSULTATION: Possible breast cancer.

HISTORY: Patient is a 51-year-old woman here for a check-up because of a suspicious lump that was found on her yearly mammogram. Patient is worried about possible \_\_\_\_\_ cancer.

PHYSICAL EXAMINATION: GENERAL: No acute distress. VITAL SIGNS: Temperature is 98.1°F. Pulse is 72, BP is 110/72 mm Hg. Respirations 16. \_\_\_\_\_ is 186 pounds, height is 5 feet, 8 inches. \_\_\_\_\_. Eyes are equal and responsive. Ears are normal, no discharge. Nose is normal. Throat is normal and without \_\_\_\_\_. LUNGS: Clear to auscultation. CARDIOVASCULAR: Regular rate and rhythm, no \_\_\_\_\_. ABDOMEN: Palpation is soft, not \_\_\_\_\_, nontender. BREAST: RIGHT: Tender to the touch on right side and has a hard lump about the size of a golf ball near the axilla. LEFT: Normal to the touch, no discomfort. EXTREMITIES: Without edema, \_\_\_\_\_, or clubbing.

SOCIAL HISTORY: Mother had breast cancer at the age of 48 and had a \_\_\_\_\_ to remove the left breast. Patient has been scheduled for yearly mammograms since the age of 45 to check for possible signs of early breast cancer. Father has a history of stage 1 rectal cancer treated with 3 rounds of \_\_\_\_\_. The patient does not smoke or use recreational drugs, she does like a glass of wine 3-4 nights a week.

Patient states she is quite worried since scheduling an appointment to follow up her mammogram results. Patient has experiencing anxiety which is affecting her eating and sleeping routine.

ASSESSMENT: Patient is a 51-year-old woman here for a check-up because a suspicious lump found on her yearly mammogram. Patient is otherwise healthy and is not currently on any medications.

PLAN

1. Ultrasound of the right breast.
2. Biopsy of the \_\_\_\_\_ for pathology. Avoid overexertion or lifting of arms above shoulder height after the biopsy
3. Follow-up appointment in 2-3 weeks for results.

\_\_\_\_\_  
Adam Vance, MD, OB/GYN

Test your knowledge by answering the questions below.

The site of implantation for a fertilized egg or the layer that sheds during menstruation if no egg is fertilized is called...

1. endometrium
2. oocyte
3. puerperium

Hysterectomy is the...

1. surgical removal of the uterus
2. surgical removal of the fallopian/uterine tubes
3. surgical removal of the breast(s)

Painful periods is called...

1. Dysmenorrhea
2. Oligomenorrhea
3. Amenorrhea

Painful intercourse is called...

1. dysuria
2. dysmenorrhea
3. dyspareunia

The superior portion of the vagina is called...

1. fornix
2. axilla
3. bartholin's glands

## 8. Obstetrics

Topic: **Obstetrics**

Text Reference: **Chapter 8. Obstetrics**

Objectives: **Students should be able to...**

**Identify meanings of key word components of obstetrics.**

### Prefixes

ante- (before)

dys- (painful, labored, difficult)

endo- (within)

in-, intra- (within, inside)

micro- (small)

multi- (many)

neo- (new)

nulli- (none)

post- (after)

pre- (before)

prim/i- (first)

retro- (backward, behind)

### Combining Forms

amni/o (amnion, amniotic fluid)

cephal/o (head)

cervic/o (cervix)

chori/o, chorion/o (chorion)



colp/o (vagina)  
culd/o (rectouterine pouch)  
embry/o (embryo)  
episi/o (vulva)  
esophag/o (esophagus)  
fet/i (fetus, unborn offspring)  
fet/o (fetus, unborn offspring)  
glact/o (milk)  
gravid/o (pregnancy)  
gynec/o (woman)  
hyster/o (uterus)  
lact/o (milk)  
mamm/o (breast)  
mast/o (breast)  
men/o (menstruation)  
metr/o (uterus)  
metri/o (uterus)  
nat/i (birth)  
nat/o (birth)  
obstetr/o (midwife)  
olig/o (scanty, few)  
omphal/o (umbilicus, navel)  
oophor/o (ovary)  
ov/o (ovary)  
ovari/o (ovary)  
ovul/o (ovary)  
par/o (to bear, labor, childbirth, give birth to)  
part/o (to bear, labor, childbirth, give birth to)  
perine/o (perineum)

pseud/o (false)

prim/i (first)

pseud/o (false)

puerper/o (childbirth)

pylor/o (pylorus, pyloric sphincter)

salping/o (uterine tube)

terat/o (malformations)

uter/o (uterus)

vagin/o (vagina)

vulv/o (vulva)

## Suffixes

-a (no meaning, noun ending)

-al (pertaining to)

-amnios (amnion, amniotic fluid)

-arche/o (beginning, first)

-cyesis (pregnancy)

-e (noun ending, no meaning)

-gen (substance that produced, agent that produced)

-genic (producing, originating, causing)

-graphy (process of recording)

-ic (pertaining to)

-is (noun suffix, no meaning)

-itis (inflammation)

-logist (specialist who studies and treats, physician who studies and treats)

-logy (study of)

-oid (resembling)

-oma (tumor)

-parous (having given birth)

- rrhea (discharge, flow)
- rrhexis (rupture)
- salpinx (tube or uterine tube)
- stenosis (constriction, narrowing)
- tocia (birth, labor)
- tomy (incision, cut into)
- um (noun ending, no meaning)
- us (noun ending, no meaning)
- version (turned, turning, *for example turning the fetus*)

**Apply the rules of medical language to pronounce, break into word parts, and define the following terms.**

Label each word part by using the following abbreviations:

- P = Prefix
- WR = Word Root
- CV = Combining Vowel
- S = Suffix
- CF = Combining Form

Example: osteoarthropathy (ă-stē-ō-ăr-THROP-ă-thē) – disease of bone and joint

WR   CV   WR   CV   S  
 oste / o / arthr / o / pathy  
       CF            CF

- amenorrhea (ā-men-ō-RĒ-ă)
- amniocentesis (am-nē-ō-sen-TĒ-sīs)
- amniochorial (am-nē-ō-KŌ-rē-ăl)
- amnionitis (am-nē-ō-NĪ-tis)
- amniorrhea (am-nē-ō-RĒ-ă)
- amniorrhesis (am-nē-ō-REK-sis)
- amniotomy (am-nē-OT-ō-mē)
- antepartum (ăn-tē-PĀR-tŭm)
- chorioamnionitis (kōr-ē-ō-am-nē-ō-NĪT-īs)

choriocarcinoma (kōr-ē-ō-kar-sīn-Ō-mă)  
dystocia (dis-TŌ-sh(ē-)-ă)  
embryogenic (ēm-brē-ō-JĚN-ĭk)  
embryoid (EM-brē-ōyd)  
episiotomy (i-piz-ē-OT-ō-mē)  
fetal (FĚT-ăl)  
gravida (GRĂV-ĭ-dă)  
hyperemesis gravida (hī-pēr-EM-ě-sis GRĂV-ĭ-dă)  
hysterorrhexis (his-tě-rō-REK-sis)  
intrapartum (in-tră-PART-ŭm)  
lactic (LAK-tik)  
lactogenic (lak-tō-JĚN-ĭk)  
lactorrhea (lak-tō-RĚ-ă)  
microcephalus (mī-krō-SĚF-ă-lūs)  
multigravida (mŭl-tĭ-GRĂV-ĭ-dă)  
multipara (mŭl-TĪP-ă-ră)  
natal (NĂT-ăl)  
neonate (NĚ-ō-năt)  
neonatal (nē-ō-NĂT-ăl)  
neonatologist (nē-ō-nă-TŎL-ō-jĭst)  
neonatology (nē-ō-nă-TŎL-ō-jē)  
nulligravida (nŭl-ĭ-GRĂV-ĭ-dă)  
nullipara (nŭl-ĪP-ă-ră)  
oligohydramnios (ōl-ĭg-ō-hĭ-DRĂM-nē-ōs)  
omphalitis (ōm-făl-Ī-tis)  
omphalocele (ōm-FĂL-ō-sēl)  
para (PĂR-ă)  
pelvic sonography (PEL-vik sō-NOG-ră-fē)  
polyhydramnios (pōl-ē-hĭ-DRĂM-nē-ōs)

postnatal (post-NĀT-ăl)  
postpartum (pōst-PART-ŭm)  
prenatal (post-NĀT-ăl)  
primigravida (prī-mī-GRAV-īd-ă)  
primipara (prī-MĪP-ă-ră)  
pseudocyesis (soo-dō-sī-Ē-sīs)  
puerpera (pū-ĚR-pě-ră)  
puerperal (pū-ĚR-pě-răl)  
pyloric stenosis (pī-LOR-īk stē-NŌ-sīs)  
teratogen (těr-AT-ō-jěn)  
teratogenic (tě-rat-ō-JĚN-īk)  
teratology (těr-ă-TŎL-ō-jē)

**Practice pronouncing and defining these medical terms that are not easily broken into word parts.**

abortion (ă-BOR-shŏn)  
abruptio placentae (ă-BRŮP-shē-ō plă-SENT-ă)  
Apgar score (AP-gar skŏr)  
breech (brĕch)  
Cesarean section (CS, c-section) (si-ZAR-ē-ăn SEK-shŏn)  
cephalic presentation (sě-FAL-īk prē-zen-TĀ-shŏn)  
cephalic version (sě-FAL-īk VĚR-zhŏn)  
cerclage (sěr-KLĀZH)  
colostrum (kŏ-LOS-trŭm)  
congenital anomaly (kŏn-JĚN-ī-tăl ă-NOM-ă-lē)  
eclampsia (e-KLAMP-sē-ă)  
ectopic pregnancy (ek-TOP-īk PREG-năn-sē)  
in vitro fertilization (IVF) (in VĚ-trō fĕrt-īl-ī-ZĀ-shŏn)  
induction (in-DŮK-shŏn)

lactation (lak-TĀ-shŏn)  
lochia (LŌ-kē-ă)  
meconium (mē-KŌ-nē-ŭm)  
midwife (MĪD-wĭf)  
midwifery (mĭd-WĪF-ēr-ē)  
obstetrician (ob-stĕ-TRISH-ăn)  
obstetrics (ŏb-STE-triks)  
parturition (păr-tū-RĪSH-ŭn)  
placenta previa (plă-SENT-ā PRĒ-vē-ă)  
preeclampsia (prē-ĕ-KLAMP-sē-ă)  
premature infant (prē-mă-CHŪR IN-fănt)  
puerperium (pū-ēr-PĒ-rē-ŭm)  
quickening (KWĪK-ĕn-ĭng)  
stillborn (STIL-bŏrn)

## **Practice pronouncing and defining these commonly abbreviated obstetrics terms.**

AB (abortion)  
AFP (Alpha-fetoprotein test)  
AI (artificial insemination)  
CS, C-section (cesarean section)  
CVS (chorionic villus sampling)  
DOB (date of birth)  
EDD (expected or estimated date of delivery)  
FAS (fetal alcohol syndrome)  
FHR (fetal heart rate)  
G (gravida or pregnant)  
GPA (gravida, para, abortus – three figures representing a patient's reproductive history)  
GYN (gynecology)  
IVF (in vitro fertilization)

LH (luteinizing hormone)

LMP (last menstrual period)

multip (multipara)

NB (newborn)

OB (obstetrics)

primip (primipara)

RDS (respiratory distress syndrome)

VBAC (vaginal birth after cesarean section)

**Sort the terms from the word lists above into the following categories.**

- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)
- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

**Use terms related to obstetrics.**

Place the following medical terms in context to complete the scenario below.

cassettes | clots | ectopic | fallopian | Microscopic | pregnancy | salpingectomy | tube | ultrasound

#### OBSTETRICS – PATHOLOGY REPORT

PATIENT NAME: Bonnie PERRY

AGE: 34

SEX: Female

DOB: May 3

PATIENT ID: 900132

DATE OF ADMISSION AND SURGERY: June 14

ADMITTING DIAGNOSIS: Ectopic pregnancy

SURGEON: Adam Vance, MD, OB/GYN

PATHOLOGY ID: Specimen No. 05-S-899

SPECIMEN RECEIVED: June 14 Specimen Reported: June 18

SURGICAL PROCEDURE: Right partial \_\_\_\_\_.

CLINICAL HISTORY: This 34-year-old white female had an \_\_\_\_\_ pregnancy as proven by pelvic \_\_\_\_\_.

TISSUE RECEIVED: Right fallopian tube.

GROSS DESCRIPTION: The specimen designated right \_\_\_\_\_ tube was examined reveals the presence of a fallopian tube measuring 5.9 cm in length and 2.3 cm in average diameter. Sectioning of the \_\_\_\_\_ shows it to be distended with blood \_\_\_\_\_ and possible field tissue. The sections were taken, and placed in three \_\_\_\_\_, A through C, for embedding.

MICROSCOPIC DESCRIPTION: \_\_\_\_\_ examination performed.

MICROSCOPIC DIAGNOSIS: Ruptured tubal \_\_\_\_\_.

-----  
Joseph Gibbs, MD, Anatomic & Clinical Pathology

Test your knowledge by answering the questions below.

Termination of a pregnancy before the fetus is viable is called...

1. Amniocentesis
2. Gestation
3. Abortion

The abnormal condition in pregnancy where the patient experiences hypertension, edema and proteinuria is called...

1. Dystocia
2. Hyperemesis Gravida
3. Preeclampsia

When the embryo implants any other place but the inner endo-uterine lining it is called a(n)...

1. Ectopic pregnancy
2. Zygote intrafallopian transfer
3. Placenta Previa

A condition where the infant's head is larger than the pelvic outlet and therefore will require a c-section is called...

1. Cephalopelvic disproportion
2. Cephalic version
3. Induction

A test conducted on the pregnant woman to assess the fetal heart rate is called...

1. Non-stress test
2. Meconium staining
3. Alpha-fetoprotein test



## 9. Cardiovascular System – Heart

Topic: **Cardiovascular System – Heart**

Text Reference: **Chapter 9. Cardiovascular System – Heart**

Objectives: **Students should be able to...**

### Identify meanings of key word components of the cardiovascular system

#### Prefixes

a- (absence of, without)

bi- (two)

brady- (slow)

dys- (bad, abnormal, painful, difficult)

endo- (within, in)

epi- (on, upon, over)

hypo- (below, deficient)

hyper- (above, excessive)

inter- (between)

pan- (all, total)

peri- (surrounding, around)

poly- (excessive, over, many)

tachy- (fast, rapid)

tri- (three)

#### Combining Forms

angi/o (vessel)

ather/o (yellowish, fatty plaque)

arteri/o (artery)  
atri/o (atrium)  
cardi/o/ (heart)  
coron/o (crown or circle, heart)  
ech/o (sound)  
electr/o (electricity)  
isch/o (deficiency, blockage)  
my/o (muscle)  
myos/o (muscle)  
symptomato/o (symptom)  
thromb/o (clot)  
valv/o (valve)  
valvul/o (valve)  
vas/o (vessel)  
ven/o (vein)  
ventricul/o (ventricle)

## Suffixes

-ac (pertaining to)  
-ade (process of)  
-al (pertaining to)  
-apheresis (removal)  
-ar (pertaining to)  
-centesis (surgical puncture to aspirate fluid)  
-dynia (pain)  
-ectomy (excision, surgical removal)  
-emia (condition of blood)  
-genic (producing, originating, causing)  
-gia (pain)

- gram (record, radiographic image)
- graph (instrument used to record)
- graphy (process of recording, radiographic imaging)
- ia (condition of, diseased state, abnormal state)
- ic (pertaining to)
- ion (process)
- itis (inflammation)
- lysis (loosening, dissolution, separating)
- megaly (enlarged, enlargement)
- logist (specialist, physician who studies and treats)
- oma (tumor)
- osis (abnormal condition)
- ous (pertaining to)
- pathy (disease)
- penia (abnormal reduction in number)
- pexy (surgical fixation, suspension)
- plasty (surgical repair)
- poiesis (formation)
- sclerosis (hardening)
- scope (instrument used to view)
- scopy (process of viewing)
- stasis (stop, stopping, controlling)
- stenosis (narrowing, constriction)
- tomy (cut into, incision)

**Apply the rules of medical language to pronounce, break into word parts, and define the following terms.**

Label each word part by using the following abbreviations:

P = Prefix

WR = Word Root  
CV = Combining Vowel  
S = Suffix  
CF = Combining Form

Example: osteoarthropathy (ă-stē-ō-ăr-THROP-ă-thē) – disease of bone and joint

WR	CV	WR	CV	S
oste	/ o /	arthr	/ o /	pathy
CF		CF		

asymptomatic (ă-simp-tō-MAT-ik)

atherosclerosis (ath-ě-rō-sklě-RŌ-sis)

atrioventricular (ă-trē-ō-ven-TRIK-yŭ-lăr)

bradycardia (brăd-i-KARD-ē-ă)

cardiac (KĂR-dē-ăk)

cardiogenic (kăr-dē-ō-JĚN-ik)

cardiologist (kăr-dē-ŎL-ō-jĭst)

cardiology (kăr-dē-ŏl'ō-jē)

cardiomegaly (kăr-dē-ō-MĚG-ă-lē)

cardiomyopathy (kard-ē-ō-mī-OP-ă-thē)

echocardiogram (ē-lĕk-trō-KĂR-dē-ō-grăm)

electrocardiograph (ē-lĕk-trō-KĂR-dē-ō-grăf)

electrocardiography (ē-lĕk-trō-KĂR-dē-ŎG-ră-fē)

electrocardiogram (ē-lĕk-trō-KĂR-dē-ō-grăm)

endocarditis (en-dō-kar-DĪT-is)

myocarditis (mī-ŏ-kar-DĪT-is)

pericardiocentesis (per-i-kard-ē-ō-sen-TĚ-sĭs)

pericarditis (per-ĭ-kar-DĪT-is)

tachycardia (tak-ē-KARD-ē-ă)

valvulitis (val-vyŭ-LĪT-is)

valvuloplasty (VAL-vyŭ-lō-plas-tē)

**Practice pronouncing and defining these medical terms that are not easily broken into word parts.**

aneurysm (AN-yŭ-rizm)

arrhythmia (ā-RITH-mē-ă)

auscultation (os-kŭl-TĀ-shŏn)

bruit (brwē)

congenital (kŏn-JĒN-ĭ-tăl)

diaphoresis (dī-ă-fŏ-RĒ-sīs)

diastole (dī-AS-tŏ-lē)

occlude (ŏ-KLOOD)

myocardial infarction (MI) (mī-ŏ-kar'dē-ăl in-FARK-shŏn)

sphygmomanometer (sfīg-mō-măn-ŎM-ët-ër)

stethoscope (STETH-ŏ-skōp)

syncope (SING-kŏ-pē)

systole (SIS-tŏ-lē)

**Practice pronouncing and defining these commonly abbreviated cardiovascular system terms related to the heart.**

ACS (acute coronary syndrome)

AED (automated external defibrillator)

AFib (atrial fibrillation)

AI (aortic insufficiency)

AS (aortic stenosis)

ASD (atrial septal defect)

ASHD (arteriosclerotic heart disease)

AV (atrioventricular)

BP (blood pressure)

BPM (beats per minute)

CABG (coronary artery bypass graft)

CAD (coronary artery disease)

CCU (coronary care unit, cardiac care unit)

CHD (coronary heart disease; chronic heart disease)

CHF (congestive heart failure)

CPR (cardiopulmonary resuscitation)

DVT (deep vein thrombosis)

ECG, EKG (electrocardiogram)

ECHO (echocardiogram)

HF (Heart Failure)

HHD (hypertensive heart disease)

HTN (hypertension)

HR (heart rate)

ICD (implantable cardioverter defibrillator)

IV (intravenous)

MI (Myocardial Infarction)

PAD (peripheral artery disease)

PTCA (percutaneous transluminal coronary angioplasty)

SPECT (single-photon emission computed tomography)

TEE (transesophageal echocardiogram)

VSD (ventricular septal defect)

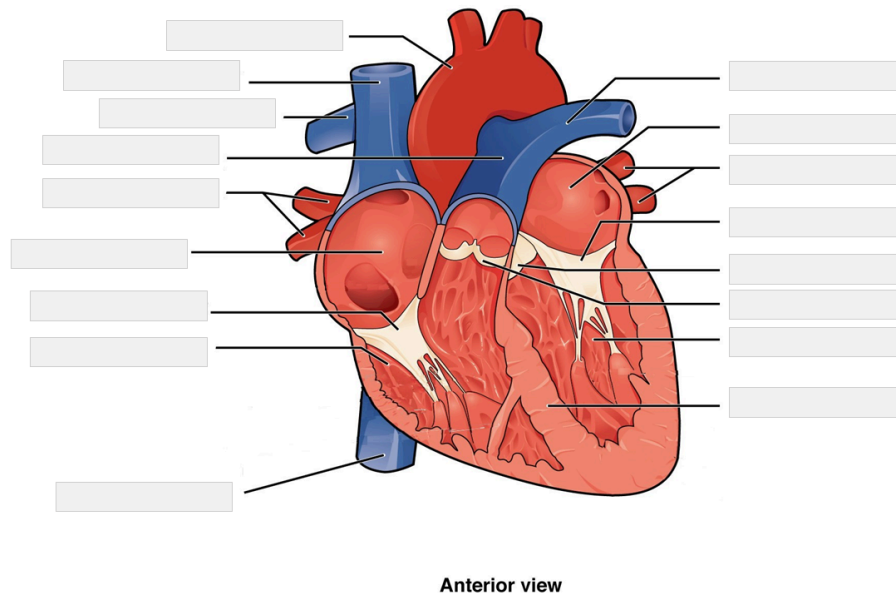
**Sort the terms from the word lists above into the following categories.**

- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)
- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

## Use terms related to the cardiovascular system.

Label the following heart anatomy in the diagram below.

aorta | aortic valve | interventricular septum | left atrium | left pulmonary artery | left pulmonary veins | left ventricle | mitral (bicuspid) valve | pulmonary trunk | pulmonary valve | right pulmonary artery | right pulmonary veins | right ventricle | tricuspid valve



Internal structures of the heart. Image adapted from Betts et al., 2021. CC-BY 4.0.

Place the following medical terms in context to complete the scenario below.

BP | bradycardia | cardiovascular | CBC and Diff | ECG | embolism | hypercholesterolemia | hypertension | implant | intravenous | shortness | venous | WBC

### CARDIOVASCULAR SYSTEM – CONSULTATION REPORT

PATIENT NAME: Lorna GILBERT

AGE: 52

SEX: Female

DOB: February 27

DATE OF CONSULTATION: June 12

REQUESTING PHYSICIAN: Trevor Sharpe, MD, Family Medicine

CONSULTING PHYSICIAN: Kevin Palmer, MD, Cardiology

HISTORY: This 52-year-old female was referred to our cardiology clinic by her family physician Dr. Trevor Sharpe. She had visited her physician last month with complaints of persistent fatigue, dizziness, light-headedness, fainting,

and an inability to exercise without experiencing \_\_\_\_\_ of breath. She claims that she is otherwise healthy; however, there is a history of \_\_\_\_\_ diseases in her family. Her father had developed DVT during a long flight and subsequently suffered from pulmonary \_\_\_\_\_. Her mother had idiopathic intracranial \_\_\_\_\_ and died from MI at a relatively young age. The patient has 3 siblings, 2 of them suffering from hypertension and \_\_\_\_\_.

LABORATORY DATA: The laboratory results show normal \_\_\_\_\_. Hemoglobin, Hct, \_\_\_\_\_ count, and platelet count are within normal range. The patient's PT and partial thromboplastin time are normal.

ALLERGIES: She is not allergic to any medications.

PHYSICAL EXAMINATION: Today the patient is alert and oriented but feels completely exhausted. She is also complaining of a mild chest pain. Her \_\_\_\_\_ is 180/110. Heart rate is in the high 50s with irregular rate and rhythm. NECK: is supple, without jugular \_\_\_\_\_ distention or bruits. LUNGS: are clear, without wheezing, rhonchi, or rales.

IMPRESSION: I suspect the patient suffers from \_\_\_\_\_ and needs a pacemaker to regulate her heart rhythms. However, given the significant history of cardiovascular disorders in her family, I will order more tests before making a definite diagnosis.

PLAN: I will admit the patient to a telemetry bed and monitor her for 48 hours. If her chest pain worsens, she will be moved to CCU and will be treated with \_\_\_\_\_ nitroglycerin. An \_\_\_\_\_ has also been ordered to confirm bradycardia. If the ECG results confirm my speculations, the patient will be scheduled for a pacemaker \_\_\_\_\_ as soon as possible.

-----  
Kevin Palmer, MD, Cardiology

Test your knowledge by answering the questions below.

The ability of the blood vessels to dilate and constrict as needed...

1. LDL
2. Syncope
3. Compliance

A disorder in which too many red blood cells are produced...

1. Polycythemia
2. Mitral valve
3. Great vessels

Difficult breathing

1. Roots of the Great Vessels
2. Dyspnea
3. Pacemaker

A condition in which cells receive insufficient amounts of blood and oxygen



1. Serous
2. Ischemic
3. Diaphoresis

Using extreme heat or extreme cold to destroy cells in part of the heart which were causing abnormal rhythms...

1. Ablation
2. Congenital
3. Cyanosis

# 10. Cardiovascular System – Blood Vessels and Blood

Topic: **Cardiovascular System – Blood Vessels and Blood**

Text Reference: **Chapter 10. Cardiovascular System – Blood Vessels and Blood**

Objectives: **Students should be able to...**

## Identify meanings of key word components of the cardiovascular system

### Prefixes

a- (absence of, without)

pan- (all, total)

epi- (on, upon, over)

inter- (between)

peri- (surrounding, around)

endo- (within, in)

hypo- (below, deficient)

hyper- (above, excessive)

poly- (many, much)

### Combining Forms

angi/o (vessel, blood vessel)

aort/o (aorta)

arteri/o (artery)

ather/o (fatty plaque)

chrom/o (color)

coagul/o (clotting)

cyt/o (cell)

eosin/o (red, dawn, rosy)  
erythr/o (red)  
hemat/o (blood)  
hem/o (blood)  
is/o (same, equal)  
isch/o (deficiency, blockage)  
lymph/o (lymph, lymph tissue)  
lymphaden/o (lymph node, lymph tissue)  
leuk/o (white)  
myel/o (bone marrow, spinal cord)  
mon/o (one, single)  
neutr/o (neutral; neither base nor acid)  
phag/o (eat, swallow)  
phleb/o (vein)  
plasm/o (plasma)  
poikil/o (varied, irregular)  
therm/o (heat)  
thromb/o (clot)  
thym/o (thymus gland)  
splen/o (spleen)  
ven/o (vein)

## Suffixes

-ac (pertaining to)  
-apheresis (removal)  
-ar (pertaining to)  
-blast (immature cell, embryonic)  
-centesis (surgical puncture to aspirate fluid)  
-cytosis (abnormal condition of cells (increase in cells))

- ectomy (excision, surgical removal)
- emia (in the blood)
- genic (producing, originating, causing)
- globin (protein)
- gram (record, radiographic image)
- graph (instrument used to record)
- graphy (process of recording, radiographic imaging)
- ia (condition of, diseased state, abnormal state)
- ic (pertaining to)
- itis (inflammation)
- logist (specialist who studies and treats)
- logy (specialty)
- lysis (loosening, dissolution, separating)
- megaly (enlarged, enlargement)
- logist (specialist, physician who studies and treats)
- oid (resembling)
- oma (tumor)
- osis (abnormal condition)
- ous (pertaining to)
- pathy (disease)
- penia (abnormal reduction in number)
- pexy (surgical fixation, suspension)
- phage (eat, swallow)
- plasty (surgical repair)
- poiesis (formation)
- sclerosis (hardening)
- stenosis (narrowing, constriction)
- scope (instrument used to view)
- scopy (process of viewing)

- stasis (stop, stopping, controlling)
- stenosis (narrowing, constriction)
- tomy (cut into, incision)

**Apply the rules of medical language to pronounce, break into word parts, and define the following terms.**

Label each word part by using the following abbreviations:

P = Prefix  
 WR = Word Root  
 CV = Combining Vowel  
 S = Suffix  
 CF = Combining Form

Example: osteoarthropathy (ă-stē-ō-ăr-THROP-ă-thē) – disease of bone and joint

WR   CV   WR   CV   S  
 oste / o / arthr / o /pathy  
       CF            CF

angioma (an-jē-Ō-mă)  
 angiography (an-jē-OG-ră-fē)  
 angioplasty (AN-jē-ō-plas-tē)  
 angioscope (AN-jē-ō-skōp)  
 angiосcopy (an-jē-OS-kō-pē)  
 angiostenosis (an-jē-ō-stē-NŌ-sīs)  
 aortic stenosis (ă-OR-tīk stē-NŌ-sīs)  
 aortogram (ă-OR-tō-grăm)  
 arteriogram (ar-TĒR-ē-ō-gram)  
 arteriosclerosis (ar-tēr-ē-ō-sklē-RŌ-sīs)  
 atherectomy (ath-ēr-EK-tō-mē)  
 atherosclerosis (ar-tēr-ē-ō-sklē-RŌ-sīs)  
 endarterectomy (ěnd-ăr-těr-ĚK-tō-mē)  
 erythrocytopenia (ě-rīth-rō-sī-tō-PĒ-nē-ă)

hematologist (hēm-ă-TŌL-ō-jīst)

hematology (hēm-ă-TŌL-ō-jē)

hematoma (hēm-ă-TŌ-mă)

hematopoiesis (hē-mat-ō-poy-Ē-sīs)

hemolysis (hē-MOL-ī-sīs)

hemostasis (hē-MŌ-STĀ-sīs)

hypothermia (hī-pō-THĒR-mē-ă)

intravenous (IV) (in-tră-VĒ-nūs)

leukocytopenia (loo-kō-sī-tō-PĒ-nē-ă)

lymphadenitis (lim-fad-ĕn-ĪT-īs)

lymphadenopathy (lim-fad-ĕ-NOP-ă-thē)

lymphoma (lim-FŌ-mă)

multiple myeloma (MŪL-tī-pl mī-ĕ-LŌ-mă)

myelopoiesis (mī-ĕ-lō-poy-Ē-sīs)

pancytopenia (pan-sīt-ō-PĒ-nē-ă)

phlebectomy (fleb-EK-tō-mē)

phlebitis (flē-BĪT-īs)

phlebotomy (flē-BOT-ō-mē)

plasmapheresis (plāz-mă-fēr-Ē-sīs)

polyarteritis (pol-ē-art-ĕ-RĪT-īs)

splenectomy (splē-NEK-tō-mē)

splenomegaly (splē-nō-mē-GĀ-lē)

splenopexy (SPLĒ-nō-pĕk-sē)

thrombocytopenia (throm-bō-sīt-ō-PĒ-nē-ă)

thrombolysis (throm-BOL-ī-sīs)

thrombophlebitis (throm-bō-flē-BĪT-īs)

thrombosis (throm-BŌ-sīs)

thrombus (THROM-būs)

thymectomy (thī-MĚK-tō-mē)

thymoma (thī-MŌ-mă)

venogram (VĒ-nŏ-gram)

**Practice pronouncing and defining these medical terms that are not easily broken into word parts.**

anaphylaxis (an-ă-fī-LAK-sīs)

anemia (ă-NĒ-mē-ă)

immunodeficiency (im-yŭ-nŏ-dĕ-FISH-ĕn-sĕ)

ischemia (is-KĒ-mē-ă)

phlebotomist (flĕ-BŎT-ŏ-mĭst)

sepsis (SEP-sīs)

serum (SĒR-ŭm)

**Practice pronouncing and defining these commonly abbreviated cardiovascular system terms related to the blood.**

Ab (antibody)

ABO (four main blood types – A, B, AB, O)

aPTT (activated partial thromboplastin time)

baso (basophils)

CBC and Diff (complete blood count and differential)

CPK (creatine phosphokinase)

EBV (Epstein-Barr virus; cause of mononucleosis)

EPO (erythropoietin)

H&H (hemoglobin and hematocrit)

Hct (hematocrit)

Hgb (hemoglobin)

mono (monocyte)

PT (prothrombin time)

PTT (partial thromboplastin time)

RBC (red blood cell, erythrocyte)

Sed Rate (erythrocyte sedimentation rate)

WBC (white blood cell, leukocyte)

WNL (within normal limits)

**Sort the terms from the word lists above into the following categories.**

- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)
- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

**Use terms related to the cardiovascular system.**

Place the following medical terms in context to complete the scenario below.

Angiogram | blood pressure | coronary | defect | infection | palpitations

#### CARDIOVASCULAR SYSTEM – CONSULTATION REPORT

PATIENT NAME: Jack MIRANDA

AGE: 74

SEX: Male

DATE OF CONSULTATION: March 26, 2020

CONSULTING PHYSICIAN: Kevin Palmer, MD, Cardiology

REASON FOR CONSULTATION: Coronary artery disease.

#### PAST MEDICAL HISTORY

1. Coronary artery disease. He had an NST MI (non-stress test myocardial infarction) in July 2019. \_\_\_\_\_ showed three-vessel disease and had PCT of RCA OM1 (right coronary artery, first obtuse marginal). LAD (left anterior descending artery) had 60% stenosis which was not significant by FFR (Fractional flow reserve) and medical management was recommended. He had a Grade 2 left ventricular function after the MI, but it improved a year later. His last echocardiogram in 2020 showed preserved ejection fraction at 60 with no significant valvular abnormalities and no significant wall motion abnormalities. He had an exercise stress test in June 2021 where he could achieve a workload of 9 metabolic equivalent of task (MET) without symptoms or electrical changes. Perfusion images showed a wall fixed inferior \_\_\_\_\_ in keeping with his previous inferior MI.
2. Hypertension.
3. Hypercholesterolemia.



4. Ex-smoker quit in 2016.
5. Rare alcohol.
6. Gout.
7. Chronic lymphocytic leukemia.

#### MEDICATIONS

Aspirin 81 mg q.d.  
Bisoprolol 5 mg q.d.  
Candesartan 60 mg q.d.  
Atorvastatin 80 mg q.d.  
Ezetrol 10 mg q.d.  
Allopurinol 300 mg q.d.

HISTORY: Overall, he has been feeling well. He denies any exertional symptoms with usual activity. He walks his dog 20 minutes a day and denies any chest pain, shortness of breath. He denies orthopnea, \_\_\_\_\_, dizziness presyncope, or syncope. He was recently hospitalized with a respiratory \_\_\_\_\_. He was treated with antibiotics and was discharged 2 days later. He has been feeling better and has gone back to his usual activities. In regards to his CLL, he has been stable with usual lymphocyte count around 30. No other cytopenia. No splenomegaly. He is being followed with a surveillance strategy with regular CBCs by hematologist.

PHYSICAL EXAMINATION: On physical exam he is alert and oriented in no acute distress, hemodynamically stable, \_\_\_\_\_ 120/70, heart rate 60 with regular rhythm, there is no evidence of volume overload, lungs are clear. Lab work showed white cell count of 8.5 with lymphocytes, 12 hemoglobin, 280 platelets, 0.8 creatinine, 70 EGFR, 144 sodium, 4.6 potassium, Hgb A1c 5.4, DL 1.2.

SUMMARY: Mr. Miranda seems to be stable from the cardiac point of view. He has a history of \_\_\_\_\_ artery disease with previous MI treated with PCI of RCA and OM1. He has a residual 60% stenosis of LAD that was not significant by FFR. He is on antiplatelet agents, high intensity statin therapy, and the combination of ARB's and beta-blockers. As long as his functional capacity remains stable, we do not need to do a follow up. Exercise treadmill test but should his symptoms change, this should be considered.

PLAN: His blood pressure is well controlled. His LDL is within the goal. There is no history of diabetes. He quit smoking 2016. I made no change to his current treatment plan and advised him to come back in a year's time and earlier, should symptoms change.

\_\_\_\_\_  
Kevin Palmer, MD, Cardiology

Test your knowledge by answering the questions below.

Proteins produced by B lymphocytes in response to a non-self antigen

1. Antibodies
2. Capillaries
3. Macrophages

An autoimmune disorder in which the body mounts an immune response against its own joint tissues, causing inflammation and damage to the joints

1. Sickle Cell Disease
2. Crohn Disease
3. Rheumatoid Arthritis

A freely moving piece of a substance (plaque or blood clot) that travels through the circulation until it blocks a smaller blood vessel, cutting off the supply of oxygen to the tissue

1. Perfusion
2. Hemostasis
3. Embolus

The thickness of fluids that affects their ability to flow

1. Pneumothorax
2. Viscosity
3. Thrombosis

The process by which the body seals a ruptured blood vessel to prevent further blood loss

1. Hemostasis
2. Hemopoiesis
3. Homeostasis

## II. Lymphatic and Immune Systems

Topic: **Lymphatic and Immune Systems**

Text Reference: **Chapter 11. Lymphatic and Immune Systems**

Objectives: **Students should be able to...**

**Identify meanings of key word components of the lymphatic and immune systems**

### Prefixes

a- (absence of, without)

an- (absence of, without)

ana- (up, upward or back, backward)

brady- (slow)

inter- (between)

pan- (all)

### Combining Forms

immun/o (immune, immunity)

lymph/o (lymph, lymph tissue)

lymphaden/o (lymph gland, lymph node)

myel/o (bone marrow, spinal cord)

splen/o (spleen)

thym/o (thymus gland)

tox/o (poison)

## Suffixes

- ac (one affected with)
- apheresis (withdrawal or removal)
- cyte (cell)
- ectomy (excision, cut out)
- itis (inflammation)
- logist (specialist, physician who studies and treats)
- logy (study of)
- megaly (enlarged, enlargement)
- oid (resembling)
- oma (tumor, swelling)
- osis (abnormal condition)
- pathy (disease)
- penia (decrease, deficiency)
- poiesis (formation, production)
- rrhaphy (suturing)

**Apply the rules of medical language to pronounce, break into word parts, and define the following terms.**

Label each word part by using the following abbreviations:

- P = Prefix
- WR = Word Root
- CV = Combining Vowel
- S = Suffix
- CF = Combining Form

Example: osteoarthropathy (ă-stē-ō-ăr-THROP-ă-thē) – disease of bone and joint

WR   CV   WR   CV   S

oste / o / arthr / o /pathy

CF            CF

immune (i-MŪN)

Immunologist (ĩm-ũ-NŌL-ō-jĩst)

immunology (im-yũ-NOL-ō-jē)

phagocytosis (făg-ō-sī-TŌ-sīs)

## **Practice pronouncing and defining these medical terms that are not easily broken into word parts.**

acute inflammation (ă-KŪT in-flă-MĀ-shŏn)

afferent lymphatic vessels (AF-ě-rěnt lim-FAT-ik VES-ěls)

allergen (AL-ěr-jěn)

allergist (AL-ěr-jist)

allergy (AL-ěr-jē)

antibody (ANT-i-bod-ē)

antigen (ANT-i-jěn)

apoptosis (ap-öp-TŌ-sīs)

autoimmune disease (OT-ō-im-yŭn diz-ĒZ)

bone marrow (bŏn MAR-ō)

chronic inflammation (KRON-ĩk in-flă-MĀ-shŏn)

chyle (kĩl)

efferent lymphatic vessels (EF-ě-rěnt lim-FAT-ik VES-ěls)

erythroblastosis fetalis (ě-rĩth-rŏ-blăs-TŌ-sīs fē-TAL-ĩs)

graft-versus-host disease (GVHD)

histamine (HIS-tă-mēn)

immunity (im-Ū-nĩt-ē)

immunodeficiency (im-yũ-nŏ-dě-FISH-ěn-sē)

immunological memory (im-yũ-NOL-ō-jē- kăl MEM-ō-rē)

inflammation (in-flă-MĀ-shŏn)

innate immune response (ĩn-NĀT i-MŪN ri-SPONS)

intersititial (in-těr-STISH-ăl)

intersitial space (in-tēr-STISH-ăl spās)

lymph (limf)

lymph node (limf nōd)

passive immunity (PĀS-īv im-Ū-nīt-ē)

severe combined immunodeficiency disease (SCID) (im-yŭ-nō-dě-FISH-ĕn-sē)

spleen (splēn)

thymus (THĪ-mŭs)

tonsils (TON-sĭls)

vaccine (vak-SĒN)

## **Practice pronouncing and defining these commonly abbreviated lymphatic and immune terms.**

AIDS (acquired immunodeficiency syndrome)

CBC and Diff (complete blood count and differential)

CD4+ Cell (helper T cell)

CD8+ Cell (cytotoxic T cell)

CMV (cytomegalovirus- causes opportunistic AIDS-related infection)

Crypto (Cryptococcus- causes opportunistic AIDS-related infection)

ELISA (enzyme-linked immunosorbent assay – test to detect anti-HIV antibodies)

G-CSF (granulocyte colony-stimulating factor – cytokine that promotes neutrophil production)

GM-CSF (granulocyte macrophage colony-stimulating factor – cytokine secreted by macrophages to promote growth of myeloid progenitor cells and their differentiation to granulocytes)

GVHD (Graft-versus-host Disease)

HAART (highly active antiretroviral therapy – use of combinations of drugs that are effective against AIDS)

Hct (hematocrit)

HDN (hemolytic disease of the newborn)

Hgb (hemoglobin)

Histo (histoplasmosis-fungal infection seen in AIDS patients)

HIV (human immunodeficiency virus)

HSV (herpes simplex virus)

IgA, IgD, IgE, IgG, IgM (immunoglobulins)

IL1 to IL38 (interleukins)

IV (Intravenous)

KS (Kaposi sarcoma)

MAI (Mycobacterium avium-intracellulare (MAI) complex – group of pathogens that cause lung and systemic disease in immunocompromised patients)

MoAb (monoclonal antibody)

NHL (non-Hodgkin lymphoma)

PCP (Pneumocystis pneumonia-opportunistic AIDS-related infection)

PI (protease inhibitor)

SCID (severe combined immunodeficiency)

SPECT (single-photon emission computed tomography)

Treg (regulatory T cell (suppressor T cell)

Toxo (toxoplasmosis- parasitic infection associated with AIDS)

WBC (White Blood Cell)

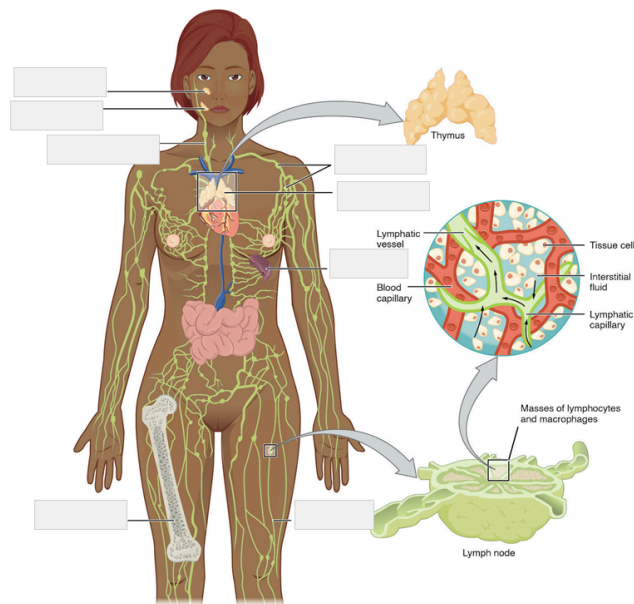
**Sort the terms from the word lists above into the following categories.**

- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)
- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

**Use terms related to the lymphatic and immune systems.**

**Label the following lymphatic system anatomy.**

adenoid | bone marrow | lymph nodes | lymph vessel | right lymphatic duct, entering vein | spleen | thymus | tonsil



Lymphatic system anatomy. Image adapted from Betts et al., 2021. CC-BY 4.0.

Place the following medical terms in context to complete the scenario below.

allergies | dander | distress | drainage | Dyspnea | heart | iron | itchy | medications | q.d. | rhinitis | runny

#### LYMPHATIC SYSTEM – MEDICAL REPORT

PATIENT NAME: Sally WESSON

AGE: 43

SEX: Female

DOB: September 26

DATE OF ASSESSMENT: March 20

ATTENDING PHYSICIAN: Trevor Sharpe, MD

CHIEF COMPLAINT: Allergies.

HISTORY: A 43-year-old Asian female states being very tired and irritable. She had presented watery and \_\_\_\_\_ eyes, itchy throat, sneezing, \_\_\_\_\_, and stuffy nose. She has family history of \_\_\_\_\_. She always struggled with many different allergies: dust, pollen, cat and dog \_\_\_\_\_. She had tried different types of over-the-counter allergy \_\_\_\_\_, but they didn't help to alleviate the symptoms. She is currently taking Reactine 5 mg daily which does not relieve all of her symptoms.

PHYSICAL EXAMINATION: GENERAL: Patient is pale and in moderate \_\_\_\_\_. VITAL SIGNS: Weight 160 pounds, B/P 120/80, \_\_\_\_\_ rate 90 beats per minute, respiratory rate 18 per minute, temperature 98.6 F. HEENT: EYES: Red, watery, itching, burning and swelling. EARS: Normal. NOSE: Mouth breathing, sneezing, runny and itchy nose, post-nasal \_\_\_\_\_, nasal congestion. THROAT: Itchy and swollen. CHEST: \_\_\_\_\_ and wheezing.

#### MEDICATIONS

1. Reactine 5 mg \_\_\_\_\_.



2. Escitalopram 20 mg q.d.
3. Lorazepam 0.5 mg p.r.n. nightly at bedtime.
4. Fenofibrate 145 mg q.h.s.

#### ASSESSMENT

1. Patient has severe seasonal allergic \_\_\_\_\_.
2. Possible anemia.

#### PLAN

1. Recommended Reactive 10 mg q.d.
2. Referred to an allergist to provide patient more options for allergy treatments.
3. Ordered a blood work to check her \_\_\_\_\_ and cholesterol levels.
4. Follow up in 4 days to review her blood work results.

-----  
Trevor Sharpe, MD

Place the following medical terms in context to complete the scenario below.

cervical | crypts | dysphagia | erythema | fatigued | fever | gargles | pseudomembranes | stones | temperature | tonsillectomy | tonsillitis | tonsillolith

#### LYMPHATIC SYSTEM – MEDICAL REPORT

PATIENT NAME: Celine CAMERON

AGE: 16

SEX: Female

DOB: March 25

DATE OF ASSESSMENT: August 4

ATTENDING PHYSICIAN: Grant Talbot, MD, Pediatrics

HISTORY: This is a 16-year-old female today with complaints of throat pain. She has been struggling with inflamed tonsils for the last 2 weeks. The patient claims that tonsil \_\_\_\_\_ are forming and that a white film has appeared over their tonsils. She has been feeling very \_\_\_\_\_, has developed a mild \_\_\_\_\_ and occasionally feel nauseous.

The client has a family history of \_\_\_\_\_ resulting in tonsillectomy. She mentioned that her grandmother experienced recurrent tonsillitis around the same age. The condition of tonsillitis has occurred on 2 other occasions in the past 5 months.

PHYSICAL AND EXAMINATION: Ms. Cameron is in no acute distress. She appears fatigued. VITAL SIGNS: Blood Pressure 132/83, \_\_\_\_\_ is slightly elevated at 99.6, pulse 67. She is in generally in good condition. Throat palpation was performed. There is significant enlargement of the \_\_\_\_\_ lymph nodes. She appears to be experiencing

\_\_\_\_\_. Throat was examined and revealed swelling, \_\_\_\_\_ and tonsillar \_\_\_\_\_ visible. A \_\_\_\_\_ was seen to be forming within one of the crypts. Celine's claims of \_\_\_\_\_ were also confirmed. She denies any symptoms such as a nasal discharge, cough, or abdominal pain. Throat was swabbed.

ASSESSMENT: Ms. Cameron appears to be experiencing recurrent tonsillitis correlated to exaggerated tonsillar crypts. Possible \_\_\_\_\_ may be required.

#### PLAN

1. Patient was given a referral to an ENT specialist and may require tonsillectomy.
2. The patient was instructed to follow a diet of soft, smooth foods and soothing liquids.
3. It was suggested that the patient use saltwater \_\_\_\_\_ in the mornings and before bed.
4. A prescription of Amoxicillin 400 mg p.o. p.c.

-----  
Grant Talbot, MD, Pediatrics

Place the following medical terms in context to complete the scenario below.

dysphagia | enlarged | erythromycin | ibuprofen | lymph | prescribed | surgery | tonsillectomy

#### LYMPHATIC SYSTEM – MEDICAL REPORT

PATIENT NAME: Jason MACDONALD

AGE: 7

SEX: Male

DOB: August 19

DATE OF ASSESSMENT: November 15

ATTENDING PHYSICIAN: Grant Talbot, MD, Pediatrics

DIAGNOSIS: Tonsillitis

HISTORY: This 7-year-old white male has been seen by me on several occasions over the last two years. He has complained of pharyngitis, \_\_\_\_\_, and fever. I have \_\_\_\_\_ erythromycin in the past.

PHYSICAL EXAMINATION: When I examined Jason today, he once again had the same complaints as in the past. I also noticed that the \_\_\_\_\_ nodes in his neck were \_\_\_\_\_ and tender. He had a temperature of 39 degrees.

TREATMENT: I gave Jason \_\_\_\_\_ for his fever and prescribed \_\_\_\_\_ again.

PLAN: It is my recommendation that Jason undergo a \_\_\_\_\_. Jason's parents are in agreement. I will make the arrangements for Jason's \_\_\_\_\_.

-----  
Grant Talbot, MD, Pediatrics

Test your knowledge by answering the questions below.

Vasoactive mediator in granules of mast cells and is the primary cause of allergies and anaphylactic shock...

1. Mast cell
2. Cisterna chyli
3. Histamine

Large duct that drains lymph from the lower limbs, left thorax, left upper limb, and the left side of the head...

1. Plasma cell
2. Thoracic duct
3. Lymph

Primary lymphoid organ; where t lymphocytes proliferate and mature...

1. Lymphatic capillaries
2. Thymus
3. Antigen

Tissue found inside bones; the site of all blood cell differentiation and maturation of b lymphocytes...

1. Bone marrow
2. Interferons
3. Neutrophil

Ability of the adaptive immune response to mount a stronger and faster immune response upon re-exposure to a pathogen...

1. Immunological memory
2. Chemokine
3. Barrier defenses

## 12. Digestive System

Topic: **Digestive System**

Text Reference: **Chapter 12. Digestive System**

Objectives: **Students should be able to...**

### Identify meanings of key word components of the digestive system

#### Prefixes

hemi- (half)

endo- (within, in)

sub- (under, below)

dys- (painful, abnormal, difficult, labored)

#### Combining Forms

abdomin/o (abdomen, abdominal)

an/o (anus)

antr/o (antrum)

append/o (appendix)

appendic/o (appendix)

cec/o (cecum)

celi/o (abdomen, abdominal cavity)

cheil/o (lip)

cholangi/o (bile duct)

chol/e (gall, bile)

choledoch/o (common bile duct)

col/o (colon)

colon/o (colon)  
diverticul/o (diverticulum)  
duoden/o (duodenum)  
enter/o (intestine)  
esophag/o (esophagus)  
gastr/o (stomach)  
gingiv/o (gum)  
gloss/o (tongue)  
hepat/o (liver)  
herni/o (hernia, protrusion of an organ through a membrane or cavity wall)  
ile/o (ileum)  
jejun/o (jejunum)  
lapar/o (abdomen, abdominal cavity)  
lingu/o (tongue)  
or/o (mouth)  
palat/o (palate)  
pancreat/o (pancreas)  
peritone/o (peritoneum)  
polyp/o (polyp, small growth)  
proct/o (rectum)  
pylor/o (pylorus, pyloric sphincter)  
rect/o (rectum)  
sial/o (saliva, salivary gland)  
sigmoid/o (sigmoid colon)  
steat/o (fat)  
stomat/o (mouth)  
uvul/o (uvula)

## Suffixes

- ac (pertaining to)
- al (pertaining to)
- cele (hernia, protrusion)
- centesis (surgical puncture to aspirate fluid)
- ectomy (excision)
- gram (the record, radiographic image)
- graph (instrument used to record)
- graphy (process of recording)
- ia (condition of, diseased state, abnormal state)
- iasis (condition)
- itis (inflammation)
- logist (specialist or physician who studies and treats)
- logy (study of)
- malacia (softening)
- oma (tumor)
- osis (abnormal condition)
- pathy (disease)
- pepsia (digestion)
- phagia (eating or swallowing)
- plasty (surgical repair)
- ptosis (prolapse, drooping)
- rrhaphy (suturing, repairing)
- rrhea (flow, discharge)
- scope (instrument used for visualization)
- scopy (process of viewing, visualization)
- stomy (creation of an artificial opening)
- tomy (incision, cut into)

## Apply the rules of medical language to pronounce, break into word parts, and define the following terms.

Label each word part by using the following abbreviations:

P = Prefix  
WR = Word Root  
CV = Combining Vowel  
S = Suffix  
CF = Combining Form

Example: osteoarthropathy (ă-stē-ō-ăr-THROP-ă-thē) – disease of bone and joint

WR   CV   WR   CV   S  
oste / o / arthr / o /pathy  
CF            CF

abdominocentesis (ab-dom-i-nō-sen-TĒ-sis)

abdominoplasty (ab-DOM-i-nō-plas-tē)

abdominal (ab-DOM-ĭ-nāl)

anal (ĀN-ăl)

anoplasty (Ā-nŏ-plas-tē)

antrectomy (an-TREK-tŏ-mē)

appendectomy (ap-ĕn-DEK-tŏ-mē)

appendicitis (ă-pen-dĭ-SĪT-ĭs)

celiac (SĒ-lē-ăk)

celiotomy (sē-lē-ŎT-ō-mē)

cheilorrhaphy (kĭ-LOR-ă-fē)

cholangiogram (kō-lăn-jē-Ō-gram)

cholangiography (kŏ-lan-jē-OG-ră-fē)

cholangioma (kō-lăn-jē-Ō-mă)

cholecystectomy (kō-lě-sis-TEK-tŏ-mē)

cholecystitis (kō-lě-sis-TĪT-ĭs)

choledocholithiasis (kō-LED-ō-kō-lĭ-THĪ-ă-sĭs)

choledocholithotomy (kō-lěd-ō-kō-lĭth-ŎT-ō-mē)

cholelithiasis (kō-li-lith-Ī-ă-sīs)

colectomy (kō-LEK-tō-mē)

colitis (kō-LĪT-īs)

colonoscope (kō-LŌN-ō-skōp)

colonoscopy (kō-lō-NOS-kō-pē)

colorectal (kō-lō-REK-tāl)

colostomy (kō-LOS-tō-mē)

CT colonography (CT kō-lo-NO-gră-fē)

diverticulectomy (dī-vēr-tik-ū-LĒK-tō-mē)

diverticulitis (dī-vēr-tik-yŭ-LĪT-īs)

diverticulosis (dī-vēr-tik-yŭ-LŌ-sīs)

duodenal (doo-ō-DĒN-ăl)

dyspepsia (dis-PEP-shă)

dysphagia (dis-FĀ-j(ē-)ă)

endoscope (EN-dō-skōp)

endoscopy (en-DOS-kō-pē)

enteropathy (ent-ē-ROP-ă-thē)

enterorrhaphy (ĕn-tēr-OR-ă-fē)

esophageal (ē-sof-ă-JĒ-ăl)

esophagitis (ē-sof-ă-JĪT-īs)

esophagogastroplasty (ĕ-SŌF-ă-gō-GĀS-trō-plăs-tē)

esophagogastrroduodenoscopy (EGD) (ē-sof-ă-gō-gas-trō-doo-ō-dē-NOS-kō-pē)

esophagogram (ĕ-SOF-ă-gō-gram)

esophagoscopy (ĕ-sof-ă-GOS-kō-pē)

gastrectomy (ga-STREK-tō-mē)

gastric (GAS-trik)

gastritis (gas-TRĪT-īs)

gastroenteritis (gas-trō-ent-ē-RĪT-īs)

gastroenterocolitis (găs-trō-ĕn-tēr-ō-kōl-Ī-tīs)



gastroenterology (gās-trō-ēn-tēr-ŌL-ă-jē)  
gastrojejunostomy (gās-trō-jě-jū-NŌS-tō-mē)  
gastroplasty (GĀS-trō-plās-tē)  
gastroscope (GAS-trō-skōp)  
gastroscope (gas-TROS-kō-pē)  
gastrostomy (gās-TRŌS-tō-mē)  
gingivectomy (jīn-jī-VĒK-tō-mē)  
gingivitis (jīn-jī-VĪT-īs)  
glossitis (glo-SĪT-īs)  
glossorrhaphy (glō-SOR-ă-fē)  
hemicolectomy (hēm-ē-kō-LĒK-tō-mē)  
hepatitis (hep-ă-TĪT-īs)  
hepatoma (hēp-ă-TŌ-mă)  
hepatomegaly (hep-ăt-ō-MEG-ă-lē)  
herniorrhaphy (hēr-nē-OR-ă-fē)  
ileocecal (il-ē-ō-SĒ-kāl)  
ileostomy (IL-ē-OS-tō-mē)  
laparoscope (LAP-ă-rō-skōp)  
laparoscopy (lap-ă-ROS-kō-pē)  
laparotomy (lap-ă-ROT-ō-mē)  
nasogastric (nā-zō-GĀS-trīk)  
oral (ŌR-ăl)  
palatitis (pal-ă-TĪT-īs)  
palatoplasty (PĀL-ăt-ō-plās-tē)  
pancreatic (pan-krē-AT-ik)  
pancreatitis (pan-krē-a-TĪT-īs)  
peritoneal (per-īt-ō-NĒ-ăl)  
peritonitis (per-īt-ō-NĪT-īs)  
polypectomy (pōl-ī-PĒK-tō-mē)

polyposis (pōl-ē-PŌ-sis)  
proctologist (prok-TOL-ō-jīst)  
proctology (prōk-TŌL-ō-jē)  
proctoptosis (prōk-tōp-TŌ-sis)  
proctoscope (PRŌK-tă-skōp)  
proctoscopy (prōk-TŌS-kō-pē)  
pyloromyotomy (pī-lor-ō-mī-OT-ō-mē)  
pyloroplasty (pī-LŌR-ō-plas-tē)  
rectal (RĚK-tāl)  
rectocele (REK-tō-sēl)  
sialolith (sī-AL-ō-lith)  
sigmoidoscopy (sig-moy-DOS-kō-pē)  
steatohepatitis (stē-ăt-ō-hep-ă-TĪT-is)  
steatorrhea (stē-ă-tō-RĚ-ă)  
steatosis (stē-ă-TŌ-sis)  
stomatitis (stō-mă-TĪT-is)  
stomatogastric (stō-mă-tō-GĀS-trīk)  
sublingual (süb-LING-gwāl)  
uvulectomy (ū-vyŭ-LEK-tō-mē)  
uvulitis (ū-vyŭ-LĪT-is)  
uvulopalatopharyngoplasty (UPPP) (ū-vyŭ-lō-pal-ăt-ō-fă-RING-gō-plăs-tē)

**Practice pronouncing and defining these medical terms that are not easily broken into word parts.**

adhesion (ad-HĚ-zhōn)  
ascites (ă-SĪT-ēz)  
cirrhosis (sī-RŌ-sis)  
Crohn's disease (krōnz diz-ĒZ')  
dysentery (DIS-ăn-ter-ē)

emesis (ĔM-ĕ-sĭs)

feces (FĔ-sēz)

flatus (FLĀ-tŭs)

hemorrhoids (HEM-ŏ-royds)

melena (mě-LĔ-nă)

nausea (NAW-sē-ă)

obesity (ŏ-BĔ-sĭt-ĕ)

palpate (PAL-păt)

polyp (POL-ĭp)

reflux (RĔ-flŭks)

stoma (STŌ-mă)

### **Practice pronouncing and defining these commonly abbreviated digestive system terms.**

APR (abdominoperineal resection)

BE (barium enema)

EGD (esophagogastroduodenoscopy)

ERCP (endoscopic retrograde cholangiopancreatography)

EUS (endoscopic ultrasound)

FOBT (fecal occult blood test)

GERD (gastroesophageal reflux disease)

GI (gastrointestinal)

H.pylori (Helicobacter pylori)

IBS (irritable bowel syndrome)

N&V (nausea and vomiting)

PEG (percutaneous endoscopic gastrostomy)

UC (ulcerative colitis)

UGI (upper gastrointestinal)

UPPP (uvulopalatopharyngoplasty)

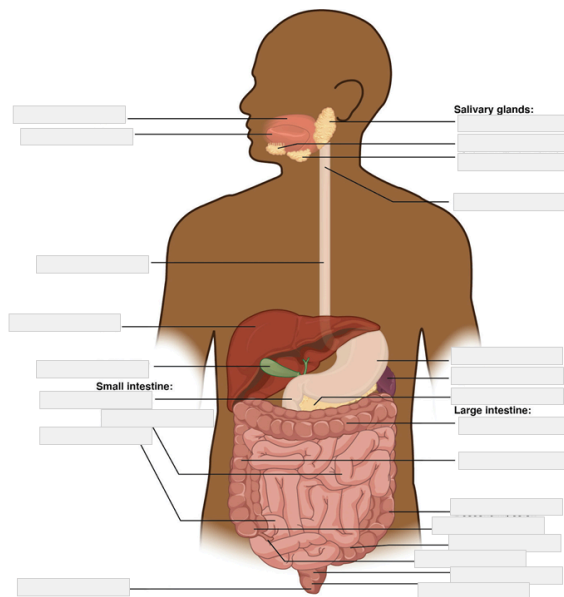
Sort the terms from the word lists above into the following categories.

- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)
- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

Use terms related to the digestive system.

Label the following digestive system anatomy.

anal canal | anus | descending colon | duodenum | esophagus | gallbladder | ileum | jejunum | liver | mouth | parotid gland | pharynx | sigmoid colon | sublingual gland | submandibular gland | tongue | transverse colon



*Digestive system anatomy. Image adapted from Betts et al., 2021. CC-BY 4.0.*

Place the following medical terms in context to complete the scenario below.

adhesion | ascites | cirrhosis | dysentery | emesis | feces | flatus | hemorrhoids | melena | nausea | obesity | palpate | polyp | reflux | stoma

Physician during an examination will \_\_\_\_\_ to feel for texture, size, consistency and location of body parts with hands.

A \_\_\_\_\_ is a small tumour like growth that extend from the surface of a mucous membrane. \_\_\_\_\_ is an abnormal increase in the proportion of fat cells resulting in excess body weight for height.

Distended and swollen veins in the rectum and anus are called \_\_\_\_\_.

The medical term for vomiting is \_\_\_\_\_.

\_\_\_\_\_ is black tarry stool that contains blood from the gastrointestinal tract.

\_\_\_\_\_ is the medical term for gas in the gastrointestinal tract.

Abnormal intraperitoneal accumulation of fluid with large amount of proteins and electrolytes is \_\_\_\_\_.

\_\_\_\_\_ is fecal matter.

Abnormal backward flow is called \_\_\_\_\_.

The urge to vomit is \_\_\_\_\_.

\_\_\_\_\_ is a chronic degenerative disease of the liver due to alcohol abuse.

\_\_\_\_\_ is an inflammation of the intestine presenting with abdominal pain and bloody diarrhea.

A band of scar tissue that binds anatomic surfaces to each other is called an \_\_\_\_\_.

The surgical opening between an organ and the surface of the body is called a \_\_\_\_\_.

Place the following medical terms in context to complete the scenario below.

diarrhea | electrolytes | eyes | gait | Glucose | resists walking | session | stools | treatment | vomiting

#### DIGESTIVE SYSTEM – CONSULTATION REPORT

PATIENT NAME: Alex WEBB

AGE: 30

DOB: November 10

SEX: Male

CONSULTANT: Louis D. Wainwright, MD, Gastroenterology

REQUESTING PHYSICIAN: Trevor Sharpe, MD, Family Medicine

REASON FOR CONSULTATION: Please evaluate GI distress.

I was asked to see this 30-year old male in consultation because of unremitting nausea, \_\_\_\_\_, \_\_\_\_\_, abdominal pain, dizziness, and low-grade fever. The patient has a poor appetite but reports no weight loss. He has noted some postprandial cramping, midepigastric pain, and unremitting diarrhea but no blood in the \_\_\_\_\_. He states he is “healthier,” but he still has some dizziness.

Initial treatment consisted of IV fluids and control of \_\_\_\_\_. Thereafter, the patient was progressed to clear fluids and soft diet. He has done well on this routine; however, his dizziness has persisted. Fever has resolved.

On admission, the patient’s lab data revealed CBC with hematocrit of 142, hemoglobin 25 with differential of neutrophils 51%, bands 8%, lymphocytes 26%, monocytes 6%, basophils none. Serum electrolytes were normal. Potassium was low at 3.5, BUN: creatinine ratio was normal. \_\_\_\_\_ was within normal range. Stool studies were within normal.

On examination, I find the patient to be lethargic and uncomfortable with mild nausea and dizziness. He prefers to keep his eyes closed. On examination of the \_\_\_\_\_, I find no nystagmus. There is pallor to the skin, and he seems cool to the touch. Upon standing by the bedside, the patient is unsteady. Although he \_\_\_\_\_, when he attempts to walk, his \_\_\_\_\_ is halting, and he tends to fall to the left side. Abdomen is flat and nontender. Bowel sounds are WNL. Rectal exam deferred.

RECOMMENDATIONS: I think we should continue essential \_\_\_\_\_ of this gentleman. Because of the symptoms of dizziness on admission, we may want to consider a CT scan to rule out an intracerebral bleed or subdural hematoma. My opinion at this time is that we are dealing with a resolving \_\_\_\_\_ of gastritis.

Thank you for asking me to see this patient. I will be glad to follow him with you throughout his hospital stay.

-----  
Louis D. Wainwright, MD, Gastroenterology

Place the following medical terms in context to complete the scenario below.

antrum | bleeding | duodenum | duodenitis | esophagitis | GE | lateral | Lidocaine | Retroflexion | sporadic | stomach | ulceration

#### DIGESTIVE SYSTEM – OPERATIVE REPORT

PATIENT NAME: Bruce WEBSTER

AGE: 48

SEX: Male

DOB: September 23

DATE OF ADMISSION: July 2

DATE OF PROCEDURE: July 2

ADMITTING PHYSICIAN: Trevor Sharpe, MD, Family Medicine

SURGEON: Louis D. Wainwright, MD, Gastroenterology

PREOPERATIVE DIAGNOSIS: GI Bleed.

POSTOPERATIVE DIAGNOSES:

1. Severe \_\_\_\_\_.
2. Gastroesophageal \_\_\_\_\_.
3. No Significant bleeding seen in the stomach.

OPERATIVE PROCEDURE: Gastrointestinal endoscopy.

ANESTHESIA: \_\_\_\_\_ 1%.

PROCEDURE: The patient was placed into the left \_\_\_\_\_ position. A scope was introduced from the mouth, under visualization and advanced to the upper part of the \_\_\_\_\_, upper part of esophagus, middle of esophagus, \_\_\_\_\_ junction, and some \_\_\_\_\_ bleeding was seen at the GE junction. The scope was moved through the upper part of the stomach into the \_\_\_\_\_. The \_\_\_\_\_ showed some inflammation and the scope was then brought out. \_\_\_\_\_ was not performed. The scope was then brought back slowly. Mild \_\_\_\_\_ was also seen and a little bit of ulceration noted at GE junction.

CONCLUSION: Severe esophagitis, may be some source of \_\_\_\_\_ from there, but no active bleeding at this time.

-----  
Louis D. Wainwright, MD, Gastroenterology

Test your knowledge by answering the questions below.

A band of smooth muscle at the junction between the pylorus of the stomach and the duodenum of the small intestine...

1. Quadrate
2. Ampulla
3. Pyloric sphincter

Fatty tissue that stretches over the abdomen, plays a role in immune response and the growth of certain cancers...

1. Convex
2. Fundus
3. Omentum

The process of breaking down the fat into smaller blood cells which makes it easy for enzymes to function and digest food...

1. Emulsification
2. Malabsorption
3. Bicarbonate

Location where the diaphragm has a small opening through which the esophagus passes before connecting...

1. Hilum
2. Hiatal
3. Lacteals

Situated nearer to the center of the body or the point of attachment...

1. Quadrate
2. Proximal
3. Distal

# 13. Skeletal System

Topic: **Skeletal System**

Text Reference: **Chapter 13. Skeletal System**

Objectives: **Students should be able to...**

## Identify meanings of key word components of the musculoskeletal system

### Prefixes

a- (absence of, without)

ab- (away from)

ad- (towards)

brady- (slow)

dys- (painful, difficult, abnormal, labored)

hyper- (above, excessive)

inter- (between)

intra- (within, in)

poly- (many, much)

sub- (below, under)

supra- (above)

sym- (together, joined)

syn- (together, joined)

### Combining Forms

ankyl/o (stiff, bent)

aponeur/o (aponeurosis)

arthr/o (joint)



burs/o (bursa)

carp/o (carpals, wrist)

chondr/o (cartilage)

clavic/o (clavicle, collarbone)

clavicul/o (clavicle, collarbone)

cost/o (ribs)

crani/o (cranium)

disk/o (intervertebral disk)

femor/o (femur, upper leg bone)

fibul/o (fibula, lower leg bone)

humer/o (humerus, upper arm bone)

ili/o (ilium)

ischi/o (ischium)

kinesi/o (movement, motion)

kyph/o (increased convexity of the spine)

lord/o (bent forward, increased concavity of the spine)

lumb/o (loin, lumbar region of the spine)

mandibul/o (mandible, lower jaw bone)

maxill/o (maxilla, upper jaw bone)

menisc/o (meniscus, crescent)

myel/o (marrow [bone], spinal cord)

oste/o (bone)

patell/o (patella, kneecap)

pelv/i (pelvis, pelvic bone)

pelv/o (pelvis, pelvic bone)

petr/o (stone)

phalang/o (phalanges, bones of finger and toes)

pub/o (pubis)

rachi/o (vertebral spine, vertebral column)

radi/o (nerve root)  
scapul/o (scapula, shoulder blade)  
scoli/o (crooked, curved)  
spondyl/o (vertebra, spine, vertebral column)  
stern/o (sternum, breast bone)  
tars/o (tarsals, ankle bones)  
ten/o (tendon)  
tendin/o (tendon)  
tend/o (tendon)  
tibi/o (tibia, lower leg bone)  
uln/o (ulna, lower arm bone)  
vertebr/o (vertebra, spine, vertebral column)

## Suffixes

-al (pertaining to)  
-algia (pain)  
-ar (pertaining to)  
-asthenia (weakness)  
-centesis (surgical puncture to aspirate fluid)  
-clasia (break)  
-clasis (break)  
-clast (break)  
-desis (surgical fixation, fusion)  
-ectomy (excision, surgical removal, cutting out)  
-gram (the record, radiographic image)  
-graphy (process of recording, radiographic imaging)  
-ic (pertaining to)  
-itis (inflammation)  
-lysis (loosening, separating, dissolution)

- malacia (softening)
- oid (resembling)
- oma (tumor)
- osis (abnormal condition)
- penia (abnormal reduction)
- physis (growth)
- plasty (surgical repair)
- rrhaphy (suturing, repairing)
- sarcoma (malignant tumour)
- schisis (split, fissure)
- scopy (process of viewing, visual examination)
- tomy (incision, cut into)
- trophy (nourishment, development)

**Apply the rules of medical language to pronounce, break into word parts, and define the following terms.**

Label each word part by using the following abbreviations:

P = Prefix  
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 CV = Combining Vowel  
 S = Suffix  
 CF = Combining Form

Example: osteoarthropathy (ä-stē-ō-är-THROP-ă-thē) – disease of bone and joint

WR   CV   WR   CV   S  
 oste / o / arthr / o /pathy  
       CF            CF

ankylosis (ang-kī-LŌ-sīs)

arthralgia (ar-THRAL-j(ē-)ă

arthritis (ar-THRĪT-īs)

arthroclasia (ar-thrō-KLĀ-zh(ē-)ă)

arthrocentesis (ar-thrō-sen-TĒ-sis)

arthrodesis (ar-THROD-ě-sis)

arthrography (ar-THROG-ră-fē)

arthroplasty (AR-thrō-plas-tē)

arthroscopy (ar-THROS-kō-pē)

bradykinesia (brăd-ē-kī-NĒ-sē-ă)

bursectomy (būr-SĚK-tō-mē)

bursitis (būr-SĪT-is)

carpal (KĀR-pāl)

carpectomy (kār-PĚK-tō-mē)

chondrectomy (kōn-DRĚK-tō-mē)

chondromalacia (kon-drō-mă-LĀ-sh(ē-)ă)

chondroplasty (KŌN-drō-plās-tē)

clavicular (klă-VĪK-ŭ-lăr)

costectomy (kōs-TĚK-tō-mē)

costochondral (kōs-tō-KŌN-drāl)

cranial (KRĀ-nē-ăl)

cranioplasty (KRĀ-nē-ō-plās-tē)

cranioschisis (krā-nē-ŌS-kī-sis)

craniotomy (krā-nē-ŌT-ō-mē)

diskectomy (dis-KEK-tō-mē)

diskitis (dis(k)-ĪT-is)

dyskinesia (dis-kī-NĒ-zh(ē-)ă)

dystrophy (DIS-trō-fē)

femoral (FEM-ō-răl)

humeral (HŪ-měr-ăl)

hyperkinesia (hī-pěr-kī-NĒ-zh(ē-)ă)

hypertrophy (hī-PĚR-trō-fē)

iliofemoral (il-ē-ō-FEM-ō-răl)

intercostal (int-ēr-KOS-tăl)  
 intervertebral (in-tēr-VĚRT-ě-brěl)  
 intracranial (in-tră-KRĀ-nē-ăl)  
 ischiofibular (is-kē-ō-FIB-yŭ-lăr)  
 kyphosis (kī-FŌ-sīs)  
 laminectomy (lām-i-NĚK-tō-mē)  
 lordosis (lor-DŌ-sīs)  
 lumbocostal (lŭm-bō-KOS-tăl)  
 lumbar (LŮM-băr)  
 lumbosacral (lŭm-bō-SĀ-krăl)  
 maxillitis (măks-il-Ī-tīs)  
 maxillectomy (măks-il-EK-tō-mē)  
 meniscectomy (mĕn-i-SĚK-tō-mē)  
 meniscitis (men-i-SĪT-īs)  
 ostectomy (ös-TĚK-tō-mē)  
 osteitis (os-tē-ĪT-īs)  
 osteoarthritis (ă-stē-ō-är-'thrī-təs)  
 osteoblast (OS-tē-ō-blast)  
 osteochondritis (os-tē-ō-kon-DRĪT-īs)  
 osteoclasia (ös-tē-ō-KLĀ-sis)  
 osteocyte (OS-tē-ō-sīt)  
 osteomalacia (os-tē-ō-mă-LĀ-sh(ē)-ă)  
 osteomyelitis (os-tē-ō-mī-ě-LĪT-īs)  
 osteonecrosis (os-tē-ō-ně-KRŌ-sīs)  
 osteopenia (os-tē-ō-PĚ-nē-ă)  
 osteopetrosis (ös-tē-ō-pě-TRŌ-sīs)  
 osteosarcoma (ös-tē-ō-săr-KŌ-mă)  
 patellectomy (păt-ě-LĚK-tō-mē)  
 pelvic (PEL-vik)

pelvisacral (PEL-vīs-SĀ-krāl)  
 phalangectomy (fāl-ăn-JĚK-tō-mē)  
 pubic (PŪ-bīk)  
 pubofemoral (pū-bō-FĚM-or-ăl)  
 rachiotomy (rā-kī-ŎT-ō-mē)  
 rachischisis (ră-KĪS-kī-sīs)  
 radial (RĀD-ē-ăl)  
 sacral (SAK-răl, SĀ-krāl)  
 sarcopenia (săr-kō-PĚN-ē-ă)  
 scoliosis (skō-lē-Ŏ-sīs)  
 spondylarthritis (spon-dil-ar-THRĪT-īs)  
 spondylosis (spōn-dī-LŎ-sīs)  
 sternoclavicular (stěr-nō-klă-VĪK-ū-lăr)  
 sternoid (STĚR-noyd)  
 subcostal (sŭb-KOS-tăl)  
 submandibular (sŭb-măn-DĪB-ū-lăr)  
 submaxillary (sŭb-MĀK-sī-lěr-ē)  
 subscapular (sŭb-SKĀP-ū-lăr)  
 substernal (sŭb-STĚR-năl)  
 suprapatellar (soo-pră-pă-TĚL-ăr)  
 synovectomy (sĭn-ō-VĚK-tō-mē)  
 synoviosarcoma (sĭn-ō-vē-Ŏ-mă-sar-KŎ-mă)  
 tarsectomy (tar-SEK-tō-mē)  
 tendinitis (ten-dī-NĪT-īs)  
 tenomyoplasty (tĕn-ō-MĪ-ō-plăs-tē)  
 tenorrhaphy (tĕn-OR-ă-fē)  
 tenosynovitis (ten-ō-sin-ŏ-VĪT-īs)  
 tibial (TĪB-ē-ăl)  
 ulnoradial (ŭl-nŏ-RĀD-ē-ăl)

vertebrocostal (vēr-tě-brō-KŎS-tāl)

vertebroplasty (VER-tē-brō-plas-tē)

**Practice pronouncing and defining these musculoskeletal system movement terms.**

abduction (ab-DŮK-shŏn)

adduction (ă-DŮK-shŏn)

eversion (ē-VĚR-zhŭn)

extension (ek-STEN-shŏn)

flexion (FLEK-shŏn)

inversion (in-VĚR-zhŭn)

pronation (prō-NĀ-shŭn)

rotation (rō-TĀ-shŏn)

supination (sū-pĭn-Ā-shŭn)

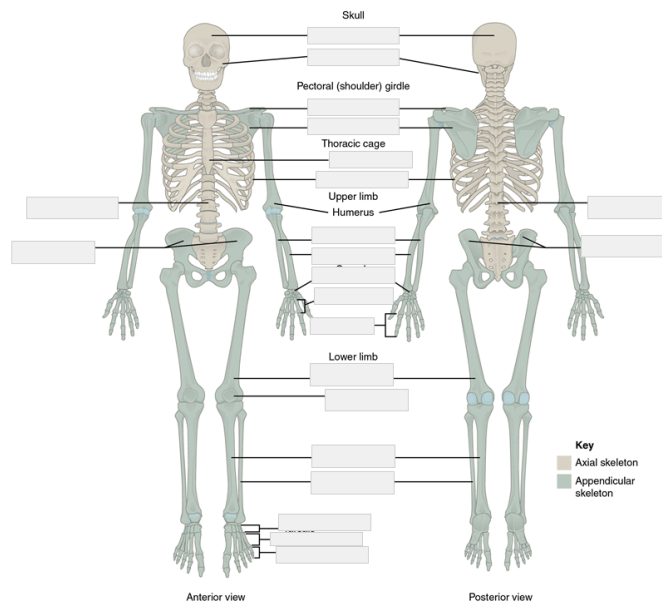
**Sort the terms from the word lists above into the following categories.**

- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)
- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

**Use terms related to the musculoskeletal system.**

**Label the following skeletal system anatomy.**

carpals | clavicle | cranial portion | facial portion | femur | fibula | humerus | metacarpals | metatarsals | patella | pelvic girdle | phalanges | phalanges | pelvic girdle | radius | ribs | scapula | sternum | tarsals | tibia | ulna | vertebral column | vertebral column



Skeletal system anatomy.  
Image adapted from  
Betts et al., 2021. CC-BY  
4.0.

Place the following medical terms in context to complete the scenario below.

arthritis | arthroscopy | chondromalacia | femoral | Orthopedic | tendinitis | total hip arthroplasty | x-rays

#### MUSCULOSKELETAL SYSTEM – OPERATIVE REPORT

PATIENT NAME: Mrs. Karen SMITH

AGE: 72 Sex: Female

DATE OF SURGERY: February 24

PREOPERATIVE DIAGNOSIS: Degenerative arthritis of both hips; more severe on the right side.

POSTOPERATIVE DIAGNOSIS: Severe degenerative arthritis and severe \_\_\_\_\_ of the right hip.

NAME OF PROCEDURE: Total hip arthroplasty.

HISTORY: Mrs. Karen Smith is a 72-year-old widow who has been living alone and independently since her husband's premature death 15 years ago. Mrs. Smith has worked for 30 years at the production line in a factory and is now retired.

Mrs. Smith has been experiencing discomfort in her hips, especially the right one, over the parts twenty years or so. However, what started as a mild discomfort over time turned into severe pain. Now the pain is so bad that she is afraid that it might soon rob her of her independence. She first sought help for her hip pain many years ago. After physical examination, her family physician ordered \_\_\_\_\_ for both hip joints. Based on the results, it was concluded that the pain was due to severe \_\_\_\_\_ mainly due to wear and tear. She was advised to lose weight and to take over-the-counter painkillers as needed. She was also referred to a physiotherapist. However, despite the fact that she has lost 10% of her original body weight of 170 pounds and has been adhering to the exercise regimen recommended by her physiotherapist, the pain has grown worse over the years and now is almost unbearable. She was last visited by an orthopedic surgeon and subsequently was admitted to the General Hospital Outpatient \_\_\_\_\_ Clinic for \_\_\_\_\_ of both hips.

OPERATIVE REPORT: The patient was brought to the operating room by anesthesia personnel. She was placed on the operating table. A Foley catheter was inserted. The patient was then placed into the lateral decubitus position with her right side up. The right lower extremity was prepped and draped in standard fashion for a \_\_\_\_\_. Dissection was



carried sharply down through the soft tissue to the greater trochanter. The greater trochanter was used as a landmark to orient the remainder of the dissection which was continued posteriorly and proximally to expose the iliofemoral joint.

The acetabulum was reamed. A 50 mm acetabular shell was used. Femur was debrided using a \_\_\_\_\_ canal curette. The length of the femoral stem was then checked with the canal curette in place. Appropriate femoral stem and head were selected and implanted. Intraoperative radiographs were obtained to ensure proper component position.

The hip was then checked for range of motion. The patient reached 90 degrees of flexion and full extension with no instability. No abnormality was detected in the surrounding soft tissue. There was no indication of \_\_\_\_\_.

The area was then closed in a layered fashion. The subcutaneous tissues were closed using surgical Vicryl 5-0 sutures. An incisional VAC was placed over the wound as well. Sponge and needle counts were correct at the end of the operation. The patient tolerated the procedure well and was returned to the recovery room in good condition.

-----  
Michael Porter, MD, Orthopedic Surgery

Place the following medical terms in context to complete the scenario below.

akinesia | aligned | arthralgia | atrophy | carpal | Colles | fluoroscopy | orthopedic | splint | sterilized | supination | sutured  
| tenomyoplasty | tenorrhaphy

#### MUSCULOSKELETAL SYSTEM – OPERATIVE REPORT

PATIENT NAME: Liam PALMER

AGE: 22

SEX: Male

DOB: December 4

DATE OF ADMISSION: May 5

DATE OF PROCEDURE: May 5

ATTENDING PHYSICIAN: Michael Porter, MD, Orthopedic Surgery

PREOPERATIVE DIAGNOSIS: Fx of the distal end of radius.

POSTOPERATIVE DIAGNOSIS: Fx of the distal end of radius.

ANESTHESIA: General.

INDICATION: This 22-year-old male had been skating earlier today when he lost his balance and fell. Trying to break the fall with an outstretched arm, he landed on his right arm, breaking his wrist. Mr. Palmer was brought to the \_\_\_\_\_ clinic in Toronto General Hospital. The wrist has been kept in a neutral position since even a slight movement was painful. The injured area is edematous and any attempt for active or passive flexion, extension, \_\_\_\_\_, or pronation caused a sharp pain that shoots all the way to the right shoulder. Posterior-Anterior and lateral x-rays of the wrist and forearm confirmed \_\_\_\_\_ fracture of the distal end of radius with the broken piece displaced posteriorly. The \_\_\_\_\_ bones were intact. The patient required surgery to fix the broken bone. Although not certain at that point, there was a possibility that the patient also required \_\_\_\_\_.

PROCEDURE: The surgery was done under general anesthesia. The patient's arm was placed in a proper position to allow for an easy and unobstructed access to the surgical area. The surgical area was \_\_\_\_\_. A longitudinal incision was made to access the fracture. The fractured bone was realigned, and a metal plate was used to secure the \_\_\_\_\_ bone and restore stability. Throughout the surgery \_\_\_\_\_ was used to ensure proper reduction of the bone. The surrounding muscles, tendons, and ligaments were examined to ensure their integrity. There was no need for

tenomyoplasty or \_\_\_\_\_. Once the surgery was completed, the surgical incision was \_\_\_\_\_, the wrist was bandaged, and the arm was placed in a long cast to immobilize the wrist and elbow joints. The patient left the operation room in good and stable condition.

The patient was discharged from the hospital on the following day. He was scheduled for his first follow up visit in 3 weeks. At that time, the cast will be replaced with a removable wrist \_\_\_\_\_ and the patient will be referred to a physiotherapy clinic. Timely rehabilitation is extremely important in these types of fractures to reduce \_\_\_\_\_ and prevent from \_\_\_\_\_ and muscle \_\_\_\_\_.

-----  
Michael Porter, MD, Orthopedic Surgery

Test your knowledge by answering the questions below.

Joints with some movement are called...

1. Synarthrosis
2. Amphiarthrosis
3. Diarthrosis

The skeleton that consists of all the bones in the upper and lower limbs is called...

1. Axial Skeleton
2. Articulations
3. Appendicular Skeleton

A condition that lasts a long time with periods of remission and exacerbation is called...

1. Chronic
2. Hematopoiesis
3. Edema

Forward curvature of the lower lumbar spine is called...

1. Lordosis
2. Kyphosis
3. Scoliosis

Comminuted fractures are...

1. Bones that are broken and pierce through the skin
2. Bones that are broken and crushed in pieces
3. Bones that are broken but do not protrude the skin

# 14. Muscular System

Topic: **Muscular System**

Text Reference: **Chapter 14. Muscular System**

Objectives: **Students should be able to...**

## Identify meanings of key word components of the muscular system

### Prefixes

a- (absence of, without)

ab- (away from)

ad- (towards)

dys- (painful, difficult, abnormal, labored)

hyper- (above, excessive)

inter- (between)

intra- (within, in)

poly- (many, much)

sub- (below, under)

supra- (above)

sym- (together, joined)

syn- (together, joined)

### Combining Forms

ankyl/o (stiff or bent)

fasci/o fascia (forms sheaths enveloping muscles)

fibr/o (fibrous connective tissue)

kinesi/o (movement, motion)

kyph/o (hump)  
lamin/o lamina (thin, flat plate or layer)  
leimy/o (smooth [viseral] muscle that lines the walls of internal organs)  
my/o (muscle)  
myocardi/o (heart muscle)  
myos/o (muscle)  
plant/o (sole of the foot)  
rhabdomy/o (skeletal [striated] muscle connected to bones)  
sarc/o (flesh, connective tissue)  
ten/o (tendon)  
tendin/o (tendon)  
tend/o (tendon)

## Suffixes

-al (pertaining to)  
-algia (pain)  
-ar (pertaining to)  
-asthenia (weakness)  
-centesis (surgical puncture to aspirate fluid)  
-desis (surgical fixation, fusion)  
-ectomy (excision, surgical removal, cutting out)  
-gram (the record, radiographic image)  
-graphy (process of recording, radiographic imaging)  
-ic (pertaining to)  
-itis (inflammation)  
-lysis (loosening, separating, dissolution)  
-oid (resembling)  
-oma (tumor)  
-osis (abnormal condition)

- penia (abnormal reduction)
- physis (growth)
- plasty (surgical repair)
- rrhaphy (suturing, repairing)
- sarcoma (malignant tumor)
- schisis (split, fissure)
- scopy (process of viewing, visual examination)
- tome (instrument used to cut)
- tomy (incision, cut into)
- trophy (nourishment, development)

**Apply the rules of medical language to pronounce, break into word parts, and define the following terms.**

Label each word part by using the following abbreviations:

P = Prefix  
 WR = Word Root  
 CV = Combining Vowel  
 S = Suffix  
 CF = Combining Form

Example: osteoarthropathy (ă-stē-ō-ăr-THROP-ă-thē) – disease of bone and joint

WR   CV   WR   CV   S  
 oste / o / arthr / o /pathy  
 CF            CF

bradykinesia (brăd-ē-kī-NĒ-sē-ă)

dyskinesia (dyskinesia)

dystrophy (DIS-trō-fē)

electromyogram (ē-lĕk-trō-mī-ŌG-răm)

fibromyalgia (fī-brō-mī-AL-j(ē-)ă)

hyperkinesia (hī-pĕr-kī-NĒ-zh(ē-)ă)

hypertrophy (hī-PĒR-trō-fē)

myeloma (mī-ĕ-LŌ-mă)

myalgia (mī-AL-j(ē-)ă)

myasthenia (mī-ăs-THĒ-nē-ă)

myorrhaphy (mī-OR-ă-fē)

polymyositis (pol-ē-mī-ō-SĪ-tīs)

rhabdomyolysis (rab-dō-mī-OL-ī-sīs)

tendinitis (ten-dī-NĪT-īs)

tenomyoplasty (tēn-ō-MĪ-ō-plās-tē)

tenorrhaphy

## **Practice pronouncing and defining these commonly abbreviated muscular terms.**

ACL (anterior cruciate ligament)

AROM (active range of motion)

BKA (below knee amputation)

BMD (bone mineral density)

Ca (Calcium)

CK (creatine kinase)

CTS (carpal tunnel syndrome)

DC (Doctor of Chiropractic)

DEXA or DXA (dual-energy x-ray absorptiometry)

DO (Doctor of Osteopathy)

EMG (Electromyogram)

ESR (erythrocyte sedimentation rate)

IM (intramuscular)

MD (Muscular Dystrophy)

MG (myasthenia gravis)

NSAID (Nonsteroidal anti-inflammatory drugs, pronounced en-said)

OA (osteoarthritis)

Ortho (orthopedics)

OT (occupational therapist)

P (pulse)

PT (physical therapist)

RA (rheumatoid arthritis)

ROM (range of motion)

THR (total hip replacement)

TKR (total knee replacement)

TMJ (temporomandibular joint)

Sort the terms from the word lists above into the following categories.

- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)
- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

Use terms related to the muscular system.

Place the following medical terms in context to complete the scenario below.

arthrodesis | atrophy | clumsiness | CTS | flexion | ligament | median | metacarpal | numbness | osteoarthritis | tenorrhaphy | tingling

#### MUSCULOSKELETAL SYSTEM – REFERRAL LETTER

PATIENT NAME: Mrs. Anna JONES

AGE: 65

SEX: Female

DOB: June 29

REASON FOR REFERRAL: Evaluation and consideration for surgery for treating carpal tunnel syndrome.

Dear Dr. Porter

I am referring Mrs. Jones for evaluation and consideration for surgery for treating \_\_\_\_\_. Mrs. Jones is 65 years old. She has moved to this area 2 years ago and I have been her primary care physician since then. Recently she has been complaining of \_\_\_\_\_, tingling, burning, and pain in her right hand, primarily in the thumb, index, and middle fingers. Occasionally the pain and \_\_\_\_\_ travel up the forearm toward her shoulder. The patient reports that the pain and unusual sensations have started gradually and worsened over the past couple of years.

The patient has worked as a data entry clerk at a pharmaceutical company for 35 years. Her work involved sitting at her desk and typing on a computer for an average of 7 hours on each workday. She is retired now. The patient reports that during the past few months she has also felt weakness and \_\_\_\_\_ in her hand, and this has made her everyday life difficult. She can tell that her grip is not as strong as before since she frequently drops things. Now she is finding the simple tasks such as buttoning her clothes, cutting vegetables, and brushing her teeth challenging. The x-ray of the right hand and wrist shows clear signs of \_\_\_\_\_ and osteoporosis of carpal and \_\_\_\_\_ bones. On visual examination there is no muscle \_\_\_\_\_. The wrist has limited \_\_\_\_\_ and extension range of motion.

It is important to note that the patient had been in a car accident in her teenage years and had suffered from a compact fracture of her left wrist bones. Multiple surgeries, including arthroplasty and \_\_\_\_\_, were done to restore the functionality of the left wrist and hand. Eventually, her orthopedic surgeon performed a subtotal \_\_\_\_\_ of the wrist to provide a stable and pain-free joint with a limited useful range of motion.

Based on the aforementioned observations and findings I have determined that Mrs. Jones is a fit candidate for CTS surgery. A proper cut in the transverse carpal \_\_\_\_\_ would release the pressure off the \_\_\_\_\_ nerve and relieve the symptoms.

Thank you for seeing Mrs. Jones. Please do not hesitate to contact me directly with any questions or comments you may have concerning her care. Also, please keep me updated on her progress and kindly refer her back to my care once her condition resolves.

-----  
Trevor Sharpe, MD, Family Medicine

Test your knowledge by answering the questions below.

Muscle that is associated with the walls of internal organs and is responsible for involuntary muscle movement is called...

1. Skeletal muscle
2. Cardiac muscle
3. Smooth muscle

Paralysis that effects one side of the body is called...

1. Paraplegia
2. Paresis
3. Hemiplegia

An injury to a joint whereby a ligament is stretched or torn is called...

1. A sprain
2. A strain
3. Fibromyalgia

Myasthenia Gravis is...

1. Grave or serious muscle weakness
2. Pain in the fibrous tissues of muscles



3. Partial paralysis wherein there is still some control of the muscles

Skeletal muscle is responsible for...

1. Involuntary muscle movement
2. Voluntary muscle movement
3. Pumping blood

# 15. Sensory Systems

Topic: **Sensory Systems**

Text Reference: **Chapter 15. Sensory System**

Objectives: **Students should be able to...**

## Identify meanings of key word components of the sensory systems

### Prefixes

bi- (two)

bin- (two)

a- (absence of, without, no, not, negates meaning)

an- (absence of, without, no, not negates meaning)

endo- (within, in)

### Combining Forms

acous/o (hearing)

audi/o (hearing)

audit/o (hearing)

aur/o (ear)

aur/i (ear)

blephar/o (eyelid)

cochle/o (cochlea)

conjunctiv/o (conjunctiva)

cor/o (pupil)

corne/o (cornea)

core/o (pupil)

cry/o (cold)

cyst/o (bladder, sac or cyst)

dacry/o (tear, tear duct)

dipl/o (two, double)

ir/o (iris)

irid/o (iris)

is/o (equal)

kerat/o (cornea)

labyrith/o (labyrinth, inner ear)

lacrim/o (tear, tear duct)

mastoid/o (mastoid bone)

myring/o (tympanic membrane, eardrum)

ocul/o (eye)

ophthalm/o (eye)

opt/o (vision)

ossicul/o (ossicle)

ot/o (ear)

phac/o (lens)

phak/o (lens)

phot/o (light)

pupill/o (pupil)

retin/o (retina)

salping/o (tube)

scler/o (sclera)

staped/o (stapes, middle ear)

ton/o (tension, pressure)

tympan/o (tympanic membrane, middle ear)

vestibul/o (vestibule)

## Suffixes

- al** (pertaining to)
- algia** (pain)
- ar** (pertaining to)
- ary** (pertaining to)
- eal** (pertaining to)
- ectomy** (excision or surgical removal)
- gram** (record, radiographic image)
- graphy** (process of recording)
- ia** (condition of, diseased or abnormal state)
- ic** (pertaining to)
- itis** (inflammation)
- logist** (specialist or physician who studies and treats)
- logy** (study of)
- malacia** (softening)
- meter** (instrument used to measure)
- metry** (process of measuring)
- oma** (tumor, swelling)
- opia** (vision as it relates to condition)
- osis** (abnormal condition)
- pathy** (disease)
- pexy** (surgical fixation)
- phobia** (abnormal fear, aversion to specific things)
- plasty** (surgical repair)
- plegia** (paralysis)
- ptosis** (prolapse, drooping, sagging)
- rrhea** (flow, discharge)
- sclerosis** (hardening)
- scope** (instrument used to view)

**-scopy** (process of viewing)

**-stomy** (creation of artificial opening)

**-tomy** (incision, cut into)

**Apply the rules of medical language to pronounce, break into word parts, and define the following terms.**

Label each word part by using the following abbreviations:

P = Prefix

WR = Word Root

CV = Combining Vowel

S = Suffix

CF = Combining Form

Example: osteoarthropathy (ă-stē-ō-ăr-THROP-ă-thē) – disease of bone and joint

WR CV WR CV S

oste / o / arthr / o /pathy

CF CF

anisocoria (an-ī-sō-KŌR-ē-ă)

aphakia (ă-FĀ-kē-ă)

audiogram (OD-ē-ō-gram)

audiologist (od-ē-OL-ō-jīst)

audiology (od-ē-OL-ō-jē)

audiometer (od-ē-OM-ēt-ēr)

audiometry (od-ē-OM-ē-trē)

aural (OR-ăl)

binocular (bīn-ŌK-ū-lār)

blepharitis (blēf-ăr-Ī-tīs)

blepharoplasty (BLĒF-ă-rō-plās-tē)

blepharoptosis (BLĒF-ă-rō-TŌ-sīs)

cochlear (KOK-lē-ăr)

cochlear implant (KOK-lē-ă IM-plant)

conjunctivitis (kõn-jũnk-tĩ-VĪT-ĩs)

corneal (KOR-nē-ă)

cryoretinopexy (krĩ-ō-RET-in-ō-pek-sē)

dacrocystitis (dak-rē-ō-sis-TĪT-ĩs)

dacryocystorhinostomy (dak-rē-ō-sis-tō-rĩ-NOS-tō-mē)

diplopia (dip-LŌ-pē-ă)

electrocochleography (ē-lek-trō-kok-lē-OG-ră-fē)

endophthalmitis (ẽn-dõf-thăl-MĪ-tĩs)

intraocular (in-tră-OK-yũ-lăr)

iridectomy (ir-ĩ-DEK-tō-mē)

iridoplegia (ir-ĩ-dō-PLĒ-j(ē-)ă, ĩr)

iridotomy (ĩr-ĩ-DŌT-ō-mē)

iritis (ĩ-RĪT-ĩs)

isocoria (ĩ-sō-KŌ-rē-ă)

keratitis (ker-ă-TĪT-ĩs)

keratomalacia (kěr-ă-tō-mă-LĀ-shē-ă)

keratometer (kěr-ă-TŌM-ě-ter)

keratoplasty (KER-ăt-ō-plas-tē)

labyrinthectomy (lab-ĩ-rin-THEK-tō-mē)

labyrinthitis (lab-ĩ-rin-THĪT-ĩs)

lacrimal (LAK-rĩ-măl)

leukocoria (loo-kō-KŌR-ē-ă)

mastoidectomy (măs-tõy-d-ĖK-tō-mē)

mastoiditis (mas-toyd-ĪT-ĩs)

mastoidotomy (măs-toyd-ŌT-ō-mē)

myringitis (mĩr-ĩn-JĪ-tĩs)

myringoplasty (mĩr-ĪN-gō-plăst-ē)

myringotomy (mĩr-ĩn-GŌT-ō-mē)

nasolacrimal (nă-zō-LAK-rĩ-măl)

nasopharyngeal (nā-zō-FAR-in-gēl)  
oculomycosis (ōk-ū-lō-mī-KŌ-sīs)  
ophthalmalgia (ōf-thāl-MĀL-jē-ă)  
ophthalmic (of-THAL-mik)  
ophthalmologist (ōf-thāl-MŌL-ō-jīst)  
ophthalmology (Ophth) (ōf-thāl-MŌL-ō-jē)  
ophthalmopathy (ōf-thāl-MŌP-ă-thē)  
ophthalmoplegia (of-thal-mō-PLĒ-j(ē)-ă)  
ophthalmoscope (of-THAL-mō-skōp)  
ophthalmoscopy (of-thal-MOS-kō-pē)  
optic (OP-tik)  
optometry (op-TOM-ē-trē)  
otalgia (ō-TĀL-jē-ă)  
otologist (ō-TŌL-ō-jīst)  
otology (ō-TŌL-ō-jē)  
otomastoiditis (ō-tō-mas-toyd-ĪT-īs)  
otomycosis (ō-tō-mī-KŌ-sīs)  
otopyorrhea (ō-tō-pī-ō-RĒ-ă)  
otorhinolaryngologist (ō-tō-RĪ-nō-lār-in-GŌL-ō-jīst)  
otorrhea (ō-tō-RĒ-ă)  
otosclerosis (ō-tō-sklē-RŌ-sīs)  
otoscope(Ō-tō-skōp)  
otoscopy (ō-TŌS-kō-pē)  
phacomalacia (fāk-ō-mă-LĀ-shē-ă)  
photophobia (fō-tō-FŌ-bē-ă)  
pseudophakia (SOOD-ō-FĀ-kē-a)  
pupillary (PŪ-pī-lēr-ē)  
pupillometer (pū-pīl-ŌM-ē-tēr)  
pupilloscope (pū-pīl-ŌS-kōp)

retinal (RĚT-ĩ-năl)  
retinoblastoma (ret-ĩn-ō-blas-TŌ-mă)  
retinopathy (ret-ĩn-OP-ă-thē)  
retinoscopy (ret-ĩn-OS-kō-pē)  
sclerokeratitis (sklēr-ō-kēr-ă-TĪ-tīs)  
scleromalacia (sklě-rō-mā-LĀ-sē-ă)  
sclerotomy (sklě-ROT-ō-mē)  
stapedectomy (stā-pě-DEK-tō-mē)  
tonometer (tō-NOM-ět-ěr)  
tonometry (tō-NOM-ě-trē)  
tympanometer (tīm-pă-NŌM-ě-tēr)  
tympanometry (tīm-pă-NŌM-ě-trē)  
tympanoplasty (tīm-păn-ō-PLĀS-tē)  
vestibular (ves-TIB-yŭ-lăr)  
vestibulocochlear (ves-tĩ-bŭl-ō-KŌ-klē-ar)  
xerophthalmia (zer-of-THAL-mē-ă)

**Practice pronouncing and defining these medical terms that are not easily broken into word parts.**

amblyopia (am-blē-Ō-pē-ă)  
anosmia (a-NOZ-mē-ă)  
astigmatism (Ast) (ă-STIG-mă-tizm)  
cataract (KAT-ă-rakt)  
hyperopia (hĩ-pěr-Ō-pē-ă)  
myopia (mĩ-Ō-pē-ă)  
nyctalopia (nik-ta-LŌ-pē-ă)  
optician (öp-TĪSH-ăn)  
optometrist (öp-TŌM-ě-trīst)  
presbycusis (prez-bĩ-KŪ-sīs)



presbyopia (prez-bī-Ō-pē-ă)

sty (stī)

visual acuity (VA) (VIZH-u-ăl ă-KŪ-īt-ē)

**Practice pronouncing and defining these commonly abbreviated sensory system terms.**

AD (right ear)

ARMD (age-related macular degeneration)

AS (left ear)

Ast (astigmatism)

Em (emmetropia)

IOL (intraocular lens)

IOP (intraocular pressure)

LASIK (laser-assisted in situ keratomileusis)

Ophth (ophthalmology)

PHACO (phacoemulsification)

PERRLA (pupils, equal, round, reactive, light, accommodation)

PRK (photorefractive keratectomy)

VA (visual acuity)

VF (visual field)

AOM (acute otitis media)

ENT (ears, nose, throat)

EENT (eyes, ears, nose and throat)

HOH (hard of hearing)

OM (otitis media)

**Sort the terms from the word lists above into the following categories.**

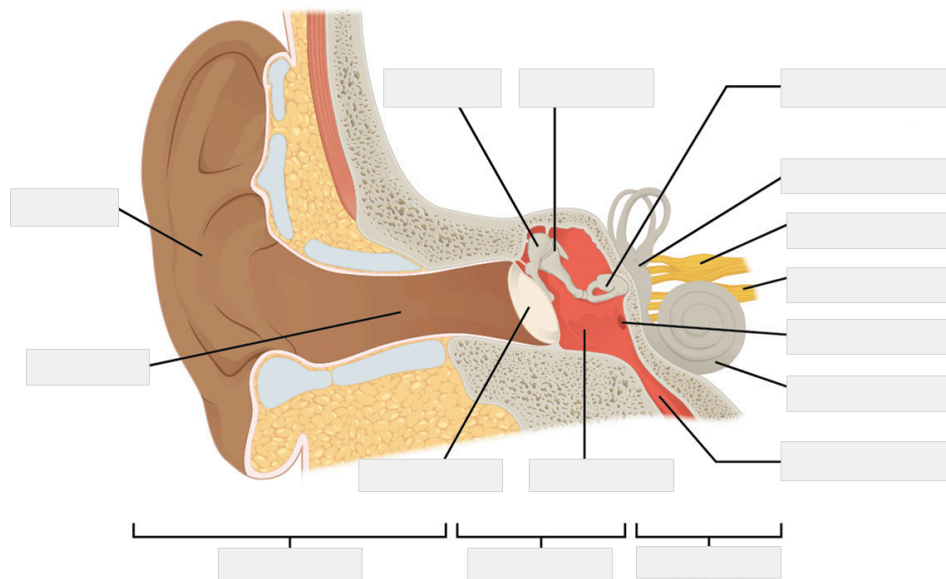
- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)

- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

Use terms related to the sensory system.

Label the following sensory system ear anatomy.

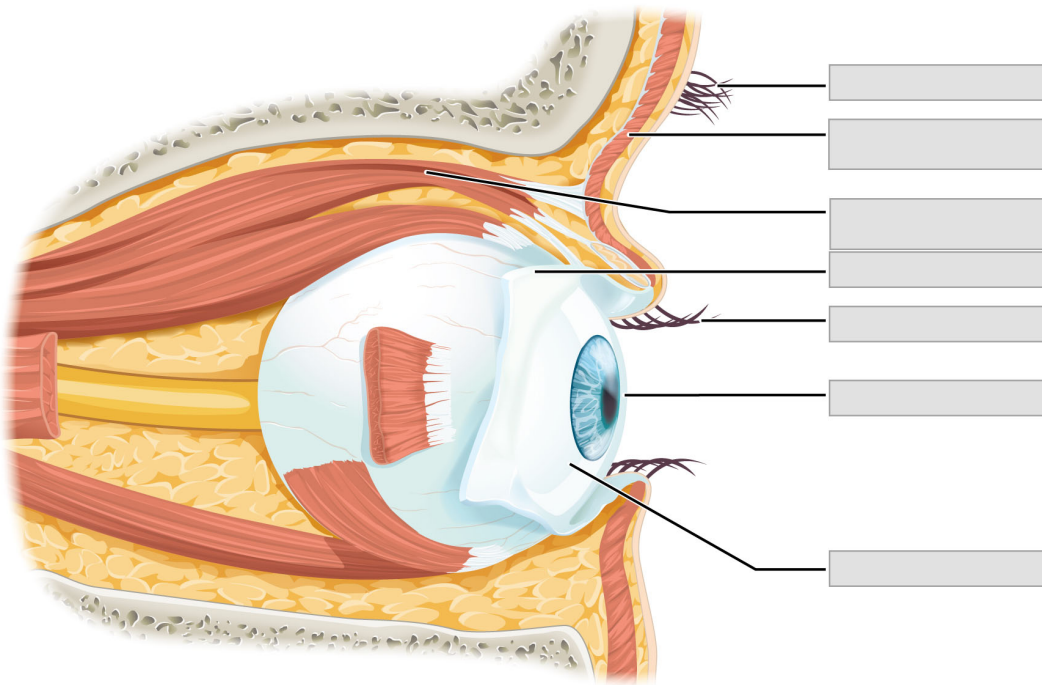
auricle | cochlea | cochlear nerve | ear canal | eustachian tube | external ear | incus | inner ear | malleus | middle ear | round window | stapes (attached to oval window) | tympanic cavity | tympanic membrane | vestibular nerve | vestibule



Structures of the ear.  
Image adapted from  
Betts et al., 2021. CC-BY  
4.0.

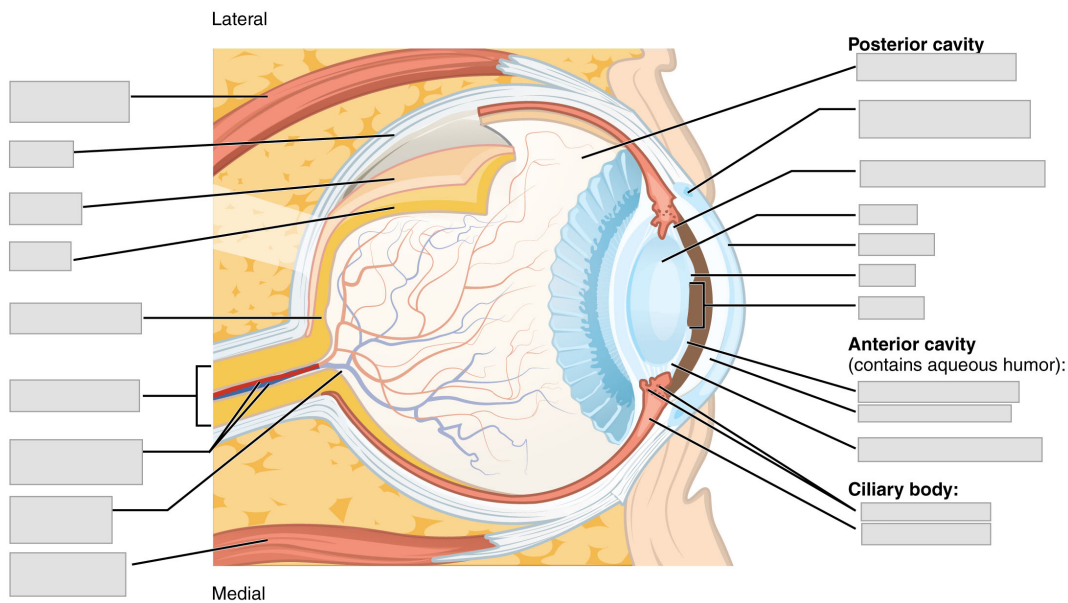
Label the following sensory system eye anatomy.

conjunctiva | cornea | eyebrow | eyelashes | levator palpebrae superioris muscle | orbicularis oculi muscle | palpebral conjunctiva



Label the following sensory system eye anatomy.

anterior chamber | central retinal artery and vein | choroid | ciliary muscle | ciliary process | cornea | fovea centralis | iris | lateral rectus muscle | lens | medial rectus muscle | optic disc (blind spot) | optic (II) nerve | posterior chamber | pupil | retina | sclera | scleral venous sinus (canal of Schlemm) | suspensory ligaments | suspensory ligaments | vitreous chamber



Place the following medical terms in context to complete the scenario below.

acuity | cataracts | dilate | eye | halos | intraocular | iris | ophthalmoscope | subcapsular | surgery

SENSORY SYSTEM – CONSULTATION REPORT

PATIENT NAME: Betty FOX

AGE: 72

SEX: Female

DOB: October 2

DATE OF CONSULTATION: August 5

CONSULTING PHYSICIAN: Brian Gates, MD, Ophthalmology

REASON FOR CONSULTATION: Cataracts

HISTORY: I saw Mrs. Fox a 72-year-old for her regular \_\_\_\_\_ examination. She has been wearing reading glasses for several year now but has noticed that she has been having troubles reading and has been seeing \_\_\_\_\_ around lights while driving at night.

PHYSICAL EXAMINATION: A visual \_\_\_\_\_ test was performed. I used a slit lamp to view the cornea, \_\_\_\_\_, lens, and the space between the iris and cornea. I detected tiny abnormalities. I administered drops to \_\_\_\_\_ the pupils to examine the retina. Using an \_\_\_\_\_, I was able to examine the lenses for signs of \_\_\_\_\_. I was able to determine that Mrs. Fox has posterior \_\_\_\_\_ cataracts in both eyes.

PLAN: I explained to Mrs. Fox that she required cataract \_\_\_\_\_. I explained that her clouded lens would be replaced with an \_\_\_\_\_ lens – a clear artificial lens. She was in agreeance to having the surgery. I told her we would perform the surgery on her right eye first, then in about eight weeks we would do the left eye. Arrangements for her surgery will be made for next month.

\_\_\_\_\_  
Brian Gates, MD, Ophthalmology

Place the following medical terms in context to complete the scenario below.

abnormalities | anaesthetic | antihistamines | dacryocystitis | dacryocystorhinostomy | erythematous | masses | medication | nasolacrimal | ophthalmalgia | OS | puncta | thyroid | watering

SENSORY SYSTEM – CONSULTATION REPORT

PATIENT NAME: Rose MACKENZIE

AGE: 57

SEX: Female

DOB: November 25

DATE OF CONSULTATION: April 16

CONSULTING PHYSICIAN: Ashley Cook MD, Ophthalmology

REASON FOR CONSULTATION: Epiphora in left eye.

HISTORY: Patient is a 57-year-old female who reports epiphora in \_\_\_\_\_. Prior to the encounter, she attempted to cure the condition with various \_\_\_\_\_. She states that this has been an ongoing issue for the past 2 years, but the \_\_\_\_\_ has affected her ability to safely drive over the past 8 months. She denied any persistent \_\_\_\_\_, although noted that the surface of the eye was occasionally irritated and \_\_\_\_\_ due to rubbing away the tears. She has had no prior eye surgery and no relevant family or personal history of dermatitis or \_\_\_\_\_ pathologies.

PHYSICAL EXAMINATION: Patient is alert and oriented x 3, and in no acute distress. Examination of the eye surface revealed no \_\_\_\_\_ other than the erythema and tearing. The skin surrounding the eye appeared normal, with no \_\_\_\_\_ or swelling.

An irrigation test was then conducted. The eye was treated with \_\_\_\_\_ eye drops prior to the test. A syringe filled with saline was inserted into the left \_\_\_\_\_ using a hollow wire. The syringe was then pressed to assess the pressure of the left \_\_\_\_\_ duct. The fluid did not pass through the nose, indicating inflammation of the duct. No further diagnostic testing was required.

ASSESSMENT: Chronic \_\_\_\_\_ of the left nasolacrimal duct.

PLAN: Return for \_\_\_\_\_ in 3 months. Patient was instructed to remove tears using tissue instead of her hand to avoid the risk of infection. No \_\_\_\_\_ is required in the meantime.

-----  
Ashley Cook MD, Ophthalmology

Test your knowledge by answering the questions below.

Specialized neurons that respond to changes in temperature are called...

1. Nociceptors
2. Thermoreceptors
3. Mechanoreceptors

Body movement is called...

1. Proprioception
2. Kinesthesia
3. Visceral

Sharpness of vision is called...

1. Proprioception
2. Kinesthesia
3. Visual acuity

Sensory neurons that respond to pain are called...

1. Nociceptors
2. Thermoreceptors
3. Glossopharyngeal

The ear drum is also called...

1. Tympanic membrane
2. Glossopharyngeal
3. Mechanoreceptors

# 16. Nervous System

Topic: **Nervous System**

Text Reference: **Chapter 16. Nervous System**

Objectives: **Students should be able to...**

## Identify meanings of key word components of the nervous system

### Prefixes

a- (absence of, without, no, not)

an- (absence of, without, no, not)

pan- (all, total)

post- (after)

para- (beside, beyond, around, abnormal)

pre- (before)

sub- (below, under)

dys- (painful, abnormal, difficult, labored)

intra- (within)

hemi- (half)

hyper- (above, excessive)

inter- (between)

poly- (many, much)

### Combining Forms

alg/o (sensitivity to pain)

cephal/o (head)

cerebell/o (cerebellum)

cerebr/o (cerebrum)  
dur/o (dura mater, hard)  
encephal/o (brain)  
esthesi/o (sensation, sensitivity)  
gangli/o (ganglion)  
ganglion/o (ganglion)  
gli/o (glia, gluey substance)  
mening/o (meninges)  
meningi/o (meninges)  
ment/o (mind)  
mon/o (one, single)  
myel/o (spinal cord)  
neur/o (nerve)  
phas/o (speech)  
poli/o (gray matter)  
pont/o (pons- structure in the brain)  
psych/o (mind)  
quadr/i (four)  
radic/o (nerve root)  
radicul/o (nerve root)  
rhiz/o (nerve root)  
thalam/o (thalamus)  
thec/o (sheath)  
vag/o (vagus nerve)

## Suffixes

-al (pertaining to)  
-algia (pain)  
-algnesia (sensitivity to pain)



- cele (hernia, protrusion)
- cyte (cell)
- ectomy (excision, surgical removal, cutting out)
- genic (producing, originating, causing)
- gram (the record, radiographic image)
- graph (instrument used to record)
- graphy (process of recording, radiographic imaging)
- ia (condition of, diseased state or abnormal state)
- ic (pertaining to)
- iatrist (specialist, physician)
- iatry (specialty, treatment)
- ictal (seizure, attack)
- itis (inflammation)
- lepsy (seizure)
- logist (specialist, physician)
- logy (study of)
- lysis (loosening, dissolution, separating)
- malacia (softening)
- oid (resembling)
- oma (tumor)
- osis (abnormal condition)
- paresis (slight paralysis)
- pathy (disease)
- phasia (speech)
- plasty (surgical repair)
- plegia (paralysis)
- praxia (to perform, action)
- sclerosis (hardening)
- rrhaphy (suturing, repairing)

-tomy (incision, cut into)

**Apply the rules of medical language to pronounce, break into word parts, and define the following terms.**

Label each word part by using the following abbreviations:

P = Prefix

WR = Word Root

CV = Combining Vowel

S = Suffix

CF = Combining Form

Example: osteoarthropathy (ă-stē-ō-ăr-THROP-ă-thē) – disease of bone and joint

WR   CV   WR   CV   S

oste / o / arthr / o /pathy

CF

CF

anesthesia (an-ēs-THĒ-zhă)

aphasia (ă-FĀ-zh(ē-)ă)

cephalgia (sěf-ĀL-jē-ă)

cerebellitis (sēr-ě-běl-Ī-tīs)

cerebral (SĚR-ă-brĭl, să-RĒ)

cerebral angiography (SĚR-ă-brĭl, să-RĒ an-jē-OG-ră-fē)

cerebral thrombosis (SĚR-ă-brĭl, să-RĒ throm-bō'sis)

craniocerebral (krā-nē-ō-sēr-Ē-brăl)

CT myelography (CT mī-ě-LŎG-ră-fē)

duritis (dū-RĪ-tīs)

dysphasia (dis-FĀ-zh(ē-)ă)

electroencephalogram (ě-lek-trō-ěn-SEF-ă-lō-gram)

electroencephalograph (ě-lĕk-trō-ěn-SĚF-ă-lō-grăf)

electroencephalography (ě-lek-trō-ěn-sef-ă-LOG-ră-fē)

encephalitis (en-sef-ă-LĪT-īs)

encephalomalacia (en-sef-ă-lō-mă-LĀ-sh(ē-)ă)

encephalosclerosis (ĕn-SĔF-ă-lō-sklă-RŌ-sis)  
encephalomyeloradiculitis (ĕn-sĕf-ă-lō-mī-ĕ-lō-ră-dīk-ŭ-LĪ-tis)  
gangliitis (gang-glĕ-Ī-tis)  
ganglionectomy (gang-lĕ-ō-NĚK-tō-mĕ)  
glioblastoma (glī-ō-blăs-TŌ-mă)  
gliocyte (GLĪ-ō-sīt)  
glioma (glī-Ō-mă)  
hemiparesis (hĕm-ĕ-PĀR-ĕ-sis)  
hemiplegia (hĕm-ĕ-PLĒ-jĕ-ă)  
hyperesthesia (hī-pĕr-es-THĒ-zh(ĕ)-ă)  
interictal (in-tĕr-ĪK-tăl)  
intracerebral (in-tră-SER-ĕ-brăl)  
meningioma (mĕn-in-jĕ-Ō-mă)  
meningitis (men-ĕn-JĪT-is)  
meningocele (mĕn-ĪN-gō-sĕl)  
meningomyelocele (mĕ-nĭng-gō-MĪ-ĕ-lō-sĕl)  
mental (men-TAL)  
mononeuropathy (mon-ō-noo-ROP-ă-thĕ)  
monoparesis (mon-ō-pă-RĒ-sis)  
monoplegia (mŏn-ō-PLĒ-jĕ-ă)  
myelomalacia (mī-ĕ-lō-mă-LĀ-shĕ-ă)  
neuralgia (noo-ROG-lĕ-ă)  
neuritis (noo-RĪ-tis)  
neuroarthropathy (noo-rō-ar-THROP-ă-thĕ, nū)  
neuroma (noor-Ō-mă)  
neurorrhaphy (nū-ROR-ă-fĕ)  
neurectomy (nū-RĚK-tō-mĕ)  
neuroid (noo-rōyd)  
neurologist (nū-RŌL-ō-jĭst)

neurology (noo-ROL-ō-jē)  
 neurolysis (noo-ro-LĪ-sis)  
 neuropathy (noo-ROP-ă-thē)  
 neuroplasty (NŪ-rō-plās-tē)  
 neurotomy (nū-RŌT-ō-mē)  
 panplegia (păn-PLĒ-jē-ă)  
 paresthesia (par-es-THĒ-zh(ē-)ă)  
 poliomyelitis (pō-lē-ō-mī-ĕl-ĪT-īs)  
 polyneuritis (pol-ē-noo-RĪT-īs)  
 polyneuropathy (pol-ē-noo-ROP-ă-thē)  
 postictal (post-ĪK-tăl)  
 preictal (prē-ĪK-tăl)  
 psychiatrist (sī-KĪ-ă-trist)  
 psychiatry (sī-KĪ-ă-trē)  
 psychogenic (sī-kō-JEN-ik)  
 psychologist (sī-KŌL-ō-jist)  
 psychology (sī-KOL-ō-jē)  
 psychopathy (sī-KŌP-ă-thē)  
 psychosis (sī-KŌ-sis)  
 psychosomatic (sī-kō-sō-MĀT-ik)  
 quadriplegia (kwōd-rĭ-PLĒ-jē-ă)  
 radicotomy (răd-ĭ-KŌT-ō-mē)  
 radiculitis (ră-dĭk-ŭ-LĪ-tis)  
 radiculopathy (ră-dĭk-ŭ-LŌP-ă-thē)  
 rhizomeningomyelitis (rĭ-zō-mē-nĭn-gō-mī-ĕ-LĪ-tis)  
 rhizotomy (rĭ-ZŌT-ō-mē)  
 subdural (sŭb-DŪ-răl)  
 subdural hematoma (sŭb-DŪ-răl hēm-ă-TŌ-mă)

**Practice pronouncing and defining these commonly abbreviated nervous system terms.**

AD (Alzheimer's disease)

ADHD (attention deficit hyperactivity disorder)

ALS (amyotrophic lateral sclerosis)

CNS (central nervous system)

CP (cerebral palsy)

CSF (cerebrospinal fluid)

CTE (chronic traumatic encephalopathy)

CVA (cerebrovascular accident)

EEG (electroencephalogram)

EP studies (evoked potential studies)

LP (lumbar puncture)

MRI (magnetic resonance imaging)

MS (multiple sclerosis)

OCD (obsessive-compulsive disorder)

PD (Parkinson's disease)

PET (positron emission tomography)

PNS (peripheral nervous system)

PTSD (post-traumatic stress disorder)

SAH (subarachnoid hemorrhage)

TIA (transient ischemic attack)

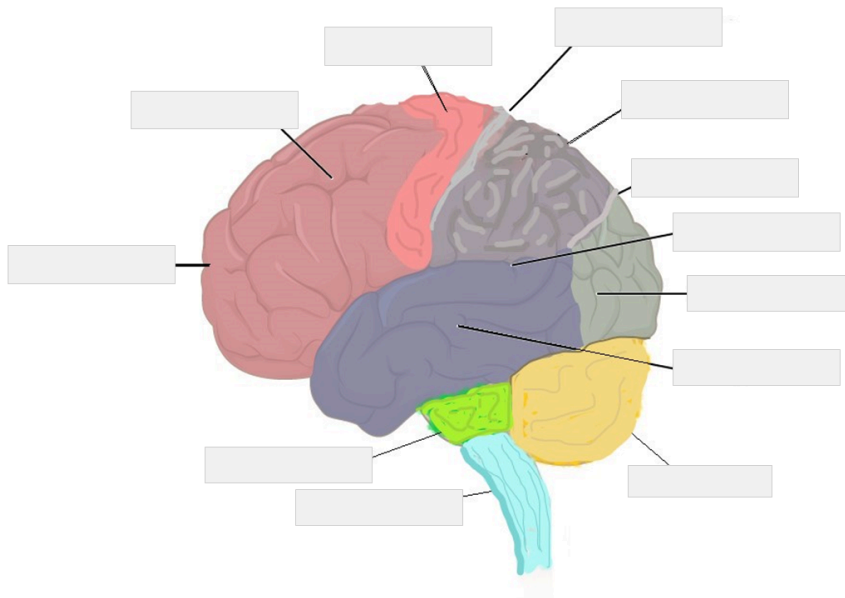
**Sort the terms from the word lists above into the following categories.**

- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)
- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

Use terms related to the nervous system.

Label the following nervous system anatomy.

brainstem | central sulcus, longitudinal fissure | cerebellum | cerebrum | frontal lobe | lateral sulcus | occipital lobe | parietal lobe | parieto-occipital sulcus | pons | precentral gyrus | temporal lobe



Brain anatomy. Image adapted from Betts et al., 2021. CC-BY 4.0.

Place the following medical terms in context to complete the scenario below.

cognition | depression | downgoing | fatigue | festination | postural | q.i.d. | rigidity

#### NEUROLOGICAL SYSTEM – HISTORY AND PHYSICAL EXAMINATION

PATIENT NAME: Susan LOGAN

AGE: 62

SEX: Female

DOB: March 24

DATE OF ASSESSMENT: December 10

ADMITTING PHYSICIAN: Martin Lewis, MD, Neurology

DIAGNOSIS: Parkinson disease

HISTORY: This pleasant and co-operative 62-year-old woman has advanced parkinsonism which presents for more than 10 years. It is affecting her daily living to a great degree. She has minor difficulty with ADLs noted in difficulty dressing and meal preparation. She has had frequent falls occasionally related to freezing or to \_\_\_\_\_ but also occurring

without any apparent cause. She has marked hesitancy on changing direction and unsteadiness after exertion and develops \_\_\_\_\_. She has a minor problem with sialorrhea, eating, and swallowing. She can maintain basic personal hygiene without any difficulty. However, showering or bathing requires assistance. She has had some symptoms of anxiety and \_\_\_\_\_ along with her Parkinson disease.

PHYSICAL EXAMINATION: On neurologic exam, she did have mild-to-moderate impairment in \_\_\_\_\_ and short-time memory, although she is alert and oriented x3. She has pronounced tremor, worse in the left arm than the right. She has marked \_\_\_\_\_ in the upper left extremity; mild in the right. She has marked reduction of movement with long delays in initiating movement and frequent freezing. She has a moderately-flexed posture and cannot straighten to command. She has \_\_\_\_\_ instability. Her speech is mildly dysarthric. She has paucity of spontaneous facial expression. She has an unsteady and erratic gait characterized by shuffling strides with festination in propulsion. She can arise from a chair with difficulty only after multiple attempts. Deep tendon reflexes (DTRs) are symmetrical, and toes are \_\_\_\_\_. Cranial nerves are intact and unremarkable.

TREATMENT AND PLAN: She has been on Sinemet 25/100 t.i.d. for the last 7 years or so. She will be going on vacation soon, and I do not wish to start a second antiparkinsonian medication while she away from medical supervision. However, I have asked her to increase her Sinemet dose to \_\_\_\_\_. We will see how she does with Sinemet and plan to add bromocriptine 1 mg per day when she returns.

FOLLOW UP: The patient has been scheduled for follow up in 3 weeks, upon her return from vacation. Her treatment regimen will be adjusted at that time.

-----  
Martin Lewis, MD, Neurology

Place the following medical terms in context to complete the scenario below.

blurred | cognition | dementia | downgoing | hypertension | MRI | neurological | stroke | symptomatic

#### NEUROLOGICAL SYSTEM – CONSULTATION REPORT

PATIENT NAME: Robert BROWN

AGE: 74

SEX: Male

DOB: July 5

DATE OF CONSULTATION: April 15

CONSULTING PHYSICIAN: Martin Lewis, MD, Neurology

REASON FOR CONSULTATION: Assessment of cognitive changes and testing.

HISTORY: The patient presented a few days ago with a marked change in \_\_\_\_\_ identified by his family members and care staff. The reports describe two episodes of the patient presenting a somewhat confused state, instability with a “holding of the temples” and a report of blurring vision. The patient was also observed holding on to walls and furniture to walk around. This seems to have been two transient episodes and has not recurred since. Prior to that, he had maintained excellent cognitive abilities with full lingual ability, no signs of aphasia, \_\_\_\_\_, or loss of consciousness. The cognitive decline noticed was not of gradual onset but rather an acute change within hours to a day. The time span is unclear as the patient lives alone and there was a time lapse between a family visit and the arrival of a personal care assistant.

The patient is a good historian to questioning and does admit to some recent occasional headaches and \_\_\_\_\_ vision. These are new to him as he reports never having “had a headache” in his “whole life”. He reports that the blurring is not constant but only seems to occur when he turns his head to right or left suddenly. There is a “tilting sensation” like he will fall but this clears when he brings his head back to center. He has no history of epilepsy or seizure disorders. No history of TM or ear trauma.

PHYSICAL EXAMINATION: HEENT: Head is normocephalic. EYES: PERRLA. EARS: Auditory exam reveals intact TMs bilaterally. No erythema. The nose and throat exam is unremarkable. NECK: JVD appears normal. VITAL SIGNS: Blood pressure is 132/86 with no previous history of \_\_\_\_\_. Pulse is 83 and resp. 22 but the patient does admit to feeling anxious during the assessment. Temperature 37C.

NEURO: Orientation and language are normal. Extremity strength testing show some minimal weakness in the right upper. Reflexes are normal. Toes are \_\_\_\_\_ bilaterally. Has difficulty with heel-and toe-walk and is unable to tandem walk. The gait is alternately normal and minimally spastic.

IMPRESSION: What appears to be a transient or acute cognitive change with altered awareness, headache and cephalopositional blurring of vision. There is some \_\_\_\_\_ change, although minimal and not clinically diagnostic, as evidenced by the slight changes in gait during testing but it does not remain consistently. This is puzzling.

PLAN: It is still not clear to me what these spells are. Some of the neurological possibilities to be considered are TIA, \_\_\_\_\_, brain and spinal cord tumors, inflammation, infection, vascular irregularities, and some neurodegenerative disorders. I have ordered a stat cerebral \_\_\_\_\_, electroencephalogram (EEG) and blood levels for CBC, chem panel. However, I feel we should also rule out the more common possibilities of pseudo-seizure, vertigo, and inner ear anomalies and am in the process of making these appropriate bookings.

I have booked a follow up with this patient in 10 days to review the results. He and his family have been advised to contact me immediately if he has another “spell” or to present to the ER where we can complete testing when the patient is \_\_\_\_\_.

Thank you for this most interesting referral. I will be in touch after I have reviewed the patient.

-----  
Martin Lewis, MD, Neurology

Place the following medical terms in context to complete the scenario below.

balance | calcifications | coordination | electroencephalogram | hemorrhagic | mass | pathology | somnolence | symptomatic | vertigo | wasting | white matter

#### NEUROLOGICAL SYSTEM – FOLLOW UP REPORT

PATIENT NAME: Randy NORTON

AGE: 74

SEX: Male

DOB: October 14

DATE OF ASSESSMENT: January 18

ASSESSING PHYSICIAN: Martin Lewis, MD, Neurology



REASON FOR ASSESSMENT: Follow up assessment of cognitive changes and testing.

HISTORY: This 74-year-old patient was seen in consultation 10 days ago for assessment of cognitive changes. He underwent prescribed testing in the forms of cerebral MRI, \_\_\_\_\_ (EEG) and blood was drawn for CBC and chem panel. The patient was seen by our local ENT for inner ear and \_\_\_\_\_ testing. Test results showed normal hearing. No evidence of an inner ear \_\_\_\_\_ that might have contributed to the \_\_\_\_\_ or lack of balance and \_\_\_\_\_ reported as part of the presenting symptoms.

TEST RESULTS: Cerebral MRI reveals a few T2 hyperintensities in the \_\_\_\_\_ in the left temporal lobe. The right hemisphere shows some diffuse \_\_\_\_\_ and some occipital wasting. There are multiple, small dark \_\_\_\_\_ areas and a few areas indicative of ischemia.

EEG: This showed some depressive effect indicative of an encephalopathy. The patient did not sleep during the exam but did show some signs of \_\_\_\_\_. CBC and chem panels were normal.

IMPRESSIONS: This patient present with testing result that may be warning for Alzheimer wasting and also, some localized hemorrhagic events that have since stopped. This type of “leakage” is often not \_\_\_\_\_, and I do not feel that they are connected to his presenting complaints. I see no signs of tumor or \_\_\_\_\_ formation nor infectious process.

On repeat verbal assessment, the patient reports he has not experienced any more of the spells. We will follow him closely in regards to the \_\_\_\_\_ with a repeat MRI and perhaps a CT also in 3 months for results comparison to see whether the wasting has advanced or receded.

Thank you for asking me in on this most interesting case.

\_\_\_\_\_  
Martin Lewis, MD, Neurology

Test your knowledge by answering the questions below.

The outer gray matter covering the forebrain, marked by wrinkles and folds known as gyri and sulci...

1. Multipolar
2. Cerebral cortex
3. Dendrite

The large opening in the occipital bone of the skull through which the spinal cord emerges and the vertebral arteries enter the cranium...

1. Foramen magnum
2. Corpus callosum
3. Dura mater

The disruption of blood flow to the brain because blood cannot flow through blood vessels as a result of a blockage or narrowing of the vessel...

1. Embolus

2. Ischemic stroke
3. Initial segment

The major region of the diencephalon that is responsible for coordinating autonomic and endocrine control of homeostasis...

1. Neuron
2. Hypothalamus
3. Myelin

The single process of the neuron that carries an electrical signal (action potential) away from the cell body toward a target cell...

1. Cauda equina
2. Axon
3. Cerebrum

# 17. Endocrine System

Topic: **Endocrine System**

Text Reference: **Chapter 17. Endocrine System**

Objectives: **Students should be able to...**

## Identify meanings of key word components of the endocrine system

### Prefixes

eu- (good, normal)

hypo- (below, under, deficient)

hyper- (above, excessive)

oxy- (rapid, sharp, acid)

para- (around, beside, beyond, abnormal)

pan- (all, total)

poly- (many or much)

syn- (joined, together)

tetr- (four)

tri- (three)

### Combining Forms

acr/o (extremities, height)

aden/o (gland)

adren/o (adrenal glands)

adrenal/o (adrenal glands)

calc/i (calcium)

cortic/o (cortex, outer layer of a body organ)

dips/o (thirst)

glyc/o (sugar)

endocrin/o (endocrine)

home/o (sameness)

kal/i (potassium)

myx/o (mucus)

natr/o (sodium)

parathyroid/o (parathyroid gland)

phys/o (growing)

pituitar/o (pituitary gland)

somat/o (body)

thyr/o (thyroid gland)

thyroid/o (thyroid gland)

## Suffixes

-drome (run, running together)

-ectomy (excision, cut out)

-emia (in the blood)

-ia (condition of, abnormal state, diseased state)

-ism (state of)

-itis (inflammation)

-logist (specialist or physician who studies and treats)

-logy (study of)

-megaly (enlarged, enlargement)

-oid (resembling)

-oma (tumor)

-pathy (disease)

-plasia (condition of, formation, development, growth)

-tomy (incision, cut into)

## Apply the rules of medical language to pronounce, break into word parts, and define the following terms.

Label each word part by using the following abbreviations:

P = Prefix  
WR = Word Root  
CV = Combining Vowel  
S = Suffix  
CF = Combining Form

Example: osteoarthropathy (ă-stē-ō-ăr-THROP-ă-thē) – disease of bone and joint

WR   CV   WR   CV   S  
oste / o / arthr / o / pathy  
CF            CF

acromegaly (ak-rō-MEG-ă-lē)

adrenalectomy (ă-drē-nă-LEK-tō-mē)

adrenitis (ă-drē-nă-LĪT-is)

adenectomy (ad-ĕn-EK-tō-mē)

adenitis (ad-ĕ-NĪT-is)

adenomegaly (ă-dēn-ō-MEG-ă-lē)

adenosis (ad-ĕ-NŌ-sis)

adrenocorticohyperplasia (ă-drē-nō-kor-tī-kō-hī-pēr-PLĀ-zh(ē)-ă)

adrenomegaly (ă-drēn-ō-MEG-ă-lē)

adrenopathy (ă-drēn-ŌP-ă-thē)

cortical (KOR-tī-kāl)

corticoid (KOR-tī-koyd)

endocrinologist (ĕn-dō-kri-NŌL-ō-jĭst)

endocrinology (ĕn-dō-kri-n-ŌL-ō-jē)

endocrinopathy (ĕn-dō-kri-n-ŌP-ă-thē)

euglycemia (ū-glī-SĒ-mē-ă)

euthyroid (ū-THĪ-royd)

glycemia (glī-SĒ-mē-ă)

hypercalcemia (hī-pĕr-kal-SĒ-mē-ă)  
hyperglycemia (hī-pĕr-glī-SĒ-mē-ă)  
hyperkalemia (hī-pĕr-kā-LĒ-mē-ă)  
hyperthyroidism (hī-pĕr-THĪ-royd-izm)  
hypocalcemia (hī-pō-kal-SĒ-mē-ă)  
hypoglycemia (hī-pō-glī-SĒ-mē-ă)  
hypokalemia (hī-pō-kā-LĒ-mē-ă)  
hyponatremia (hī-pō-nā-TRĒ-mē-ă)  
hypopituitarism (hī-pō-pī-TŪ-īt-ă-rizm)  
hypothyroidism (hī-pō-THĪ-royd-izm)  
panhypopituitarism (pan-hī-pō-pī-TOO-īt-ă-rizm, -TŪ)  
parathyroidectomy (pār-ă-thī-royd-ĒK-tō-mē)  
parathyroidoma (pār-ă-thī-royd-ō-MĀ)  
polydipsia (pol-ē-DIP-sē-ă)  
syndrome (SĪN-drōm)  
thyroidectomy (thī-royd-EK-tō-mē)  
thyroiditis (thī-royd-ĪT-īs)  
thyroidotomy (thī-royd-ŌT-ō-mē)  
thyroparathyroidectomy (thī-rō-par-ă-thī-royd-EK-tō-mē)

**Practice pronouncing and defining these commonly abbreviated endocrine system terms.**

ACTH (adrenocorticotrophic hormone)  
ADH (antidiuretic hormone)  
DI (diabetes insipidus)  
DKA (diabetic ketoacidosis)  
DM (diabetes mellitus)  
FBS (fasting blood sugar)  
FNA (fine needle aspiration)

FSH (follicle-stimulating hormone)

GH (growth hormone)

HbA1C (glycosylated hemoglobin)

LH (luteinizing hormone)

PRL (prolactin)

RAIU (radioactive iodine uptake)

Thyroid Profile (T4, T3, and TSH)

T4 (thyroxine level)

T3, (triiodothyronine level)

TSH (thyroid stimulating hormone)

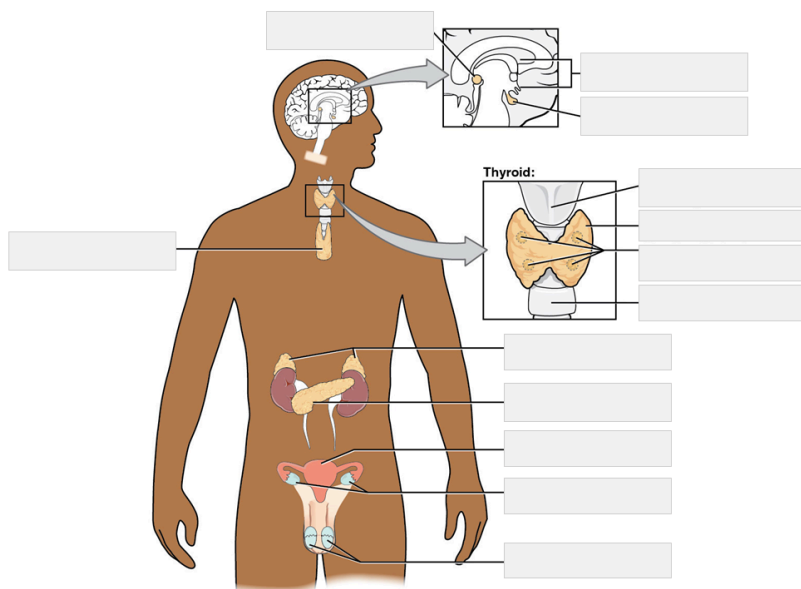
**Sort the terms from the word lists above into the following categories.**

- **Disease and Disorder** (terms describing any deviation from normal structure and function)
- **Diagnostic** (terms related to process of identifying a disease, condition, or injury from its signs and symptoms)
- **Therapeutic** (terms related to treatment or curing of diseases)
- **Anatomic** (terms related to body structure)

**Use terms related to the endocrine system.**

Label the following endocrine system anatomy.

adrenal glands | ovaries (female) | pancreas | parathyroid glands (on posterior side of thyroid) | pineal gland | pituitary gland | testes (male) | thyroid cartilage of the larynx | thalamus | thymus | thyroid gland | trachea | uterus



Place the following medical terms in context to complete the scenario below.

antibodies | conjunctival | discontinue | elevated | medications | menstrual | palpitations | side effects

#### ENDOCRINE SYSTEM – CONSULTATION REPORT

PATIENT NAME: Jane SMITH

AGE: 26

SEX: Female

DATE OF CONSULTATION: January 15, 2020

CONSULTING PHYSICIAN: Mary Johnstone, MD, Internal Medicine

REASON FOR CONSULTATION: Hyperthyroidism; Graves disease.

HISTORY: Around 2 months ago she started noticing \_\_\_\_\_ and peripheral tremor. She was feeling more anxious and edgy. She had a 10-pound weight loss despite eating well. She was having some heat intolerance and diarrhea, and her \_\_\_\_\_ cycles were irregular. She also noticed her eyes were different.

She went to see her family doctor who did lab work and was found to have a TSH suppressed with a free T4 around 40 and free T3 around 10. She then had a 24-hour thyroid uptake and scan that was abnormal with a 24-hour of 70 and a diffuse pan with a homogeneous pattern percentage in keeping with Graves disease. Her TSI was \_\_\_\_\_ at around 30.

PHYSICAL EXAMINATION: On physical exam her blood pressure was 140/60, heart rate was 120 with regular rhythm. She had mild proptosis with no infection of the \_\_\_\_\_ area. Normal eye movement. No pretibial myxedema. She had a diffuse goiter of around 60 g with no murmur and no nodularity. No abnormal lymphadenopathies. There was a positional tremor. Her weight was 90 pounds.

SOCIAL HISTORY: Jane has no significant past medical history. She is finishing her fourth year in biological studies.



She is also working on a part-time basis. She is not aware of a family history of thyroid disease. She is currently on no medications. She is a smoker, around 15 cigarettes a day. She rarely drinks alcohol. She denies marijuana use.

SUMMARY: Jane presents with Graves disease. She has hyperthyroidism positive \_\_\_\_\_ and an increased thyroid uptake and a thyroid scan in keeping with her condition.

We talked about different repair options. We discussed Tapazole versus radioactive iodine. We discussed the pros and cons of each treatment option. She preferred to start on Tapazole. We talked about the potential \_\_\_\_\_ of these medications including the risk of rash, increasing liver enzymes, and the rare risk of agranulocytosis. I explained to her that if she has a mild or high fever, she should have her CBC checked through the ER, and if there is evidence of a granulocytosis, she cannot resume Tapazole. Usually Tapazole is well tolerated.

PLAN: I have started her on Tapazole 30 mg, and she will repeat lab work in a month and see me at that point. I explained to her that usually 8-18 months of treatment are necessary. Response varies from patient to patient. Frequent levels are necessary to adjust the \_\_\_\_\_ according to response.

If she has side effects to Tapazole or there is no response, or she is experiencing regular flares, then she should \_\_\_\_\_ the use of the Tapazole. Other options such as radioactive viral can be considered. I would not favour radioactive iodine in her case as she is a smoker and that she has had a mild ophthalmopathy. Radioactive iodine can worsen ophthalmopathy, therefore it should be avoided in smokers.

We talked about the importance of discontinuing smoking as it can worsen the disease.

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Mary Johnstone, MD, Internal Medicine

Place the following medical terms in context to complete the scenario below.

congestive | diabetes | diuretics | edema | metabolic | neuropathy | palpitations | pulses | rhythms | sugars | vascular disease

#### ENDOCRINE SYSTEM – CONSULTATION REPORT

PATIENT NAME: Margaret JONES

SEX: Female

AGE: 56

DATE OF CONSULTATION: January 15, 2020

CONSULTING PHYSICIAN: Mary Johnstone, MD, Internal Medicine

REASON FOR CONSULTATION: Type 2 diabetes.

HISTORY: I saw Margaret as a follow up today in regards to poorly controlled type 2 \_\_\_\_\_. She is reluctant to make any changes in her current medications. She is very afraid of side effects of all her medications. She has not been testing her blood sugar but is planning to start doing it again.

Unfortunately, Mary did not do lab work prior to seeing me. I do not have an updated lab work for at least 2 years. It is very difficult to assess her \_\_\_\_\_ control without any information.

She continues to be sedentary, but she tells me she has no chest pain or shortness of breath when doing the chores

around the house or going up or down the stairs. She denies of orthopnea, ankle swelling, \_\_\_\_\_, presyncope or syncope.

#### PAST MEDICAL HISTORY

1. Type 2 diabetes diagnosed 2009. Advanced microvascular complications including non-proliferative retinopathy. Nephropathy with significant microalbuminuria. No \_\_\_\_\_. Positive coronary artery disease and peripheral vascular disease. Poor control for several years.
2. Coronary artery disease. CABG 4 in 2019. LIMA to LAD SVG to OM and RCA. Grade 2 left ventricular function. Previous episodes of \_\_\_\_\_ heart failure preserved ejection fraction with regular admissions due to volume overload.
3. Hypertension.
4. Hypercholesterolemia.
5. Smoker.
6. Alcohol, 5-8 beers a week.
7. Obesity.
8. Peripheral vascular disease, femoral popliteal bypass in 2017.

#### MEDICATIONS

Aspirin 81 g q.d..  
Bisoprolol 5 mg q.d..  
Ramipril 20 mg q.d..  
Rosuvastatin 20 mg q.d..  
Invokana 300 mg q.d..  
Tresiba 20 units q.d..  
Metformin 1 b.i.d..  
Ozempic 1 mg q.wk.

PHYSICAL EXAMINATION: On physical exam her weight was 100 kg. Blood pressure 160/70, heart rate 88/min. S<sub>1</sub> and S<sub>2</sub> were heard in 4 areas with regular \_\_\_\_\_. There is a 2/6 systolic murmur best heard in aortic area with no radiation. Strong carotid pulses and radial \_\_\_\_\_. JVP was 3 cm above sternal angle. Lungs were clear. There was bilateral leg \_\_\_\_\_ with venous changes in keeping with venous stasis dermatitis. Abdomen was soft, no evidence of ascites. No focal findings.

SUMMARY: Margaret has a history of poorly controlled type 2 diabetes and today is very difficult to assess her metabolic control as I do not have any information as she is not checking her blood \_\_\_\_\_ and has not had lab work for several years. She tells me she is compliant with her plan.

She also has a history of coronary artery disease and currently has no exertional symptoms. There is no evidence of significant volume overload, but she has a history of recurrent admissions due to congestive heart failure preserved ejection fraction. She is currently not on \_\_\_\_\_ and I do not think that needs to be restarted. She should continue on the combination of ACE inhibitors, beta-blockers, antiplatelets, and high intensity setting therapy.

PLAN: I asked her to do lab work and come back to see me to reassess if her treatment plan is adequate. We talked about the importance of quitting smoking. Smoking is associated with increased risk of further coronary events and progression of her peripheral \_\_\_\_\_.

\_\_\_\_\_  
Mary Johnstone, MD, Internal Medicine

Test your knowledge by answering the questions below.

Endocrine glands ...

1. Secrete hormones that travel through a duct to the target organs
2. Include sebaceous glands and sweat glands
3. Secrete chemical messengers that travel in the bloodstream
4. Release neurotransmitters into the junction between two neurons (synaptic cleft)

Chemical signaling that affects neighboring cells is called

1. Endocrine
2. Neuron
3. Paracrine
4. Autocrine

Graves disease is ...

1. A condition marked by high levels of thyroid hormones that results in weight loss, profuse sweating, and increased heart rate
2. A condition marked by low levels of thyroid hormones that results in weight gain, cold sensitivity, and reduced mental activity
3. A condition marked by a disorder of the pancreas, resulting in high levels of glucose in the blood
4. A condition marked by a disorder of the thyroid gland, resulting in hyperthyroidism

In the endocrine system ...

1. The distance travelled by hormones is always short
2. The glands release their secretions through ducts
3. Hormones are secreted into the extracellular fluid
4. The response time is always fast



PART II  
WORD BANK



## 18. A

abdominal (ab-DOM-ĭ-nāl): Pertaining to the abdomen.

abdominocentesis (ab-dom-i-nō-sen-TĒ-sis): Surgical puncture to aspirate fluid from the abdomen.

abdominoplasty (ab-DOM-i-nō-plas-tē): Surgical repair of the abdomen.

ablation (a-BLĀ-shōn): Destruction of abnormal or excessive tissue by eroding, vaporizing or melting; Using extreme heat or extreme cold to destroy cells in part of the heart which were causing abnormal rhythms.

abortion (ă-BOR-shōn): Termination of a pregnancy before the fetus is viable.

abrasion (ă-BRĀ-zhōn): Scrape (by injury or mechanical process).

abruptio placentae (ă-BRŪP-shē-ō plā-SENT-ā): Pre-mature separation of the placenta from the uterine wall.

abscess (AB-ses): Localized collection of pus.

acanthosis nigricans (ak-an-THŌ-sis NĪ-grĭ-kāns): A disorder that causes darkening and thickening of the skin on the neck, groin, underarms or skin folds.

acapnia (ă-KAP-nē-ă): Condition of absence (less than normal level) of carbon dioxide (in the blood).

acne (AK-nē): Clogging of pores, which can lead to infection and inflammation.

acoustic neuroma (ă-KOOS-tĭk noor-Ō-mă): A benign tumor in the internal auditory canal.

acrochordons (ak-rō-KOR-don): Skin tags, teardrop-sized pieces of skin that can be as large as raisins and are typically found in the armpits or neck area.

acromegaly (ak-rō-MEG-ă-lē): Enlargement of the extremities,

acronym: Term derived from the first letters of a phrase and are spoken as if they are a word on their own.

acquired immunodeficiency syndrome (AIDS) (ă-KWĪRD im-yŭ-nō-dē-FISH-ĕn-sē SĪN-drōm): Advanced, chronic immune system suppression caused by human immunodeficiency virus (HIV). infection.

active immunity (AK-tĭv im-Ū-nĭt-ē): Immunity developed from an individual's own immune system.

acute inflammation (ă-KŪT in-flā-MĀ-shōn): Inflammation occurring for a limited time period; rapidly developing.

adaptive immune response (ad-ap-TĪV i-MŪN ri-SPONS): Relatively slow but very specific and effective immune response controlled by lymphocytes.

adenectomy (ad-ĕn-EK-tō-mē): Excision of a gland.

adenitis (ad-ĕ-NĪT-is): Inflammation of the gland.

adenoidectomy (ad-ĕ-noy-DEK-tō-mē): Excision of the adenoids.

adenoiditis (ad-ĕ-noyd-ĪT-is): Inflammation of the adenoids.

adenomegaly (ă-dēn-ō-MEG-ă-lē): Enlarged gland.

adenotome (AD-ě-nō-tōm): Instrument used to cut the adenoids.

adhesion (ad-HĒ-zhōn): Band of scar tissue that binds anatomic surfaces to each other.

adipocytes (AD-ĭ-pō-sīts): Fat cells.

adipose (AD-ĭ-pōs): Fat tissue.

adrenalectomy (ă-drē-nă-LEK-tō-mē): Excision of the adrenal glands.

adrenitis (ă-drē-nă-LĪT-is): Inflammation of adrenal glands.

adrenocorticohyperplasia (ă-drē-nō-kor-tī-kō-hī-pēr-PLĀ-zh(ē)-ă): Excessive development of the adrenal cortex.

adrenomegaly (ă-drēn-ō-MEG-ă-lē): enlargement of one or both adrenal glands.

adrenopathy (ă-drēn-ŌP-ă-thē): Disease of the adrenal gland(s).

adventitial (ad-ven-TĪSH-al): The outermost layer of the wall of a blood vessel.

afferent lymphatic vessels (AF-ě-rēnt lim-FAT-ik VES-ěls): Lead into a lymph node.

afferent nerves (AF-ě-rēnt nĕrvs): Nerves that carry sensory signals (nerve impulses) toward the CNS from the periphery.

albinism (AL-bī-nizm): Genetic disorder that affects the coloring of skin, hair, and eyes.

albuminuria (al-bū-mī-NOO-rē-ă): Albumin in the urine.

allergens (AL-ěr-jĕns): Antigens that evoke type 1 hypersensitivity (allergy) responses.

Allergist (AL-ěr-jist): Specialist who studies and treats allergies.

allergy (AL-ěr-jē): Inflammatory response due to a hypersensitivity to a substance.

alpha-fetoprotein test (AFP) (AL-fă fĕt-ō-PRŌ-tĕn): A maternal blood test to detect potential fetal abnormalities such as neural tube defects or multiple pregnancies; The AFP is taken between 14 and 19 weeks gestation.

alveolar (ăl-VĒ-ŏ-lăr): Pertaining to the alveolus.

alveolar duct (ăl-VĒ-ŏ-lăr dŭkt): A tube composed of smooth muscle and connective tissue.

alveolitis (al-vē-ŏ-LĪT-ĭs): Inflammation of the alveoli.

amblyopia (am-blē-Ō-pē-ă): Reduced vision in one eye. Associated with strabismus (lazy eye).

amenorrhea (ā-men-ŏ-RĒ-ă): Absences of the flow of menses, no period; one of the first signs of pregnancy or menopause.

amniocentesis (am-nē-ŏ-sen-TĒ-sĭs): Surgical puncture to remove a small amount of amniotic fluid through a needle via the abdomen. The fluid is tested for any potential fetal abnormalities.

amniochorial (am-nē-ŏ-KŌ-rē-ăl): Pertaining to the amnion and chorion.

amnionitis (am-nē-ŏ-NĪ-tis): Inflammation of the amnion.

amniorrhea (am-nē-ŏ-RĒ-ă): Discharge (escape) of amniotic fluid.

amniorrhesis (am-nē-ŏ-REK-sis): Rupture of the amnion.



amniotomy (am-nē-OT-ō-mē): Incision into the amnion to induce labor.

amphiarthrosis (am-fē-ar-THRŌ-sīs): Joints with some movement.

ampulla (am-PU-lă): A sac-like enlargement of a canal or duct.

anal (ĀN-ăl): Pertaining to the anus.

anaphylactic shock (an-ă-fī-LAK-tik shok): Also called anaphylaxis. An inhaled, ingested or injected (bee sting) allergen causes a significant drop in blood pressure along with contractions of smooth muscles of the airways.

anaphylaxis (an-ă-fī-LAK-sīs): Exaggerated reaction to a previously encountered antigen may start out as mild reaction but can quickly become severe resulting in anaphylactic shock.

anatomical position (ăn-ă-TOM-ik pŏ-ZISH-ŏn): That of the body standing upright, with the feet at shoulder width and parallel, toes forward. The upper limbs are held out to each side, and the palms of the hands face forward.

androgens (AN-drŏ-jĕns): Hormones that affect growth and reproduction. Typically referred to as “male hormones,” however the female body produces small amounts of androgens as well.

anemia (ă-NĒ-mē-ă): Reduction in number of erythrocytes.

anesthesia (an-ēs-THĒ-zhă): Without (loss of) feeling or sensation.

aneurysm (AN-yŭ-rizm): Weakening of the wall of a blood vessel, causing it to thin and balloon out, and possibly eventually burst, resulting in internal bleeding.

angina pectoris (an-JĪ-nă): Chest pain.

angiogram (AN-jĕ-ŏ-gram): An x-ray of the coronary blood vessels using a special catheter and an injection of dye.

angiography (an-jĕ-OG-ră-fĕ): Radiographic imaging of blood vessels.

angioma (an-jĕ-Ō-mă): Tumor composed of blood vessels.

angioplasty (AN-jĕ-ŏ-plas-tĕ): A balloon-tip catheter is fed through a blood vessel up to the site of the narrowing, the balloon is inflated to re-open the artery. A stent is sometimes placed at the site to reinforce the arterial wall and to prevent re-occlusion.

angioscope (AN-jĕ-ŏ-skŏp): Instrument used for visual examination of blood vessels.

angioscopy (an-jĕ-OS-kŏ-pĕ): Visual examination of blood vessels.

angiostenosis (an-jĕ-ŏ-stĕ-NŌ-sīs): Narrowing of a blood vessel.

anisocoria (an-ī-sŏ-KŌR-ĕ-ă): Condition of absence of equal pupil (size).

ankylosis (ang-kī-LŌ-sīs): Abnormal condition of stiffness.

anoplasty (Ā-nŏ-plas-tĕ): Surgical repair of the anus.

anorchism (ă-NOR-kī-dizm): State of absence of testis.

anosmia (a-NOZ-mē-ă): Without smell/inability to smell.

anoxia (ă-NOK-sĕ-ă): Condition of absence (deficiency) of oxygen.

antagonistic (an-TAG-ō-nis-tic): In opposition to each other.

ante partum (ăn-tē-PĀR-tŭm): Before childbirth referencing the mother.

anterior (or ventral) (an-TĒR-ē-ŏr): Describes the front or direction toward the front of the body.

anteriorly (an-TĒR-ē-ŏr-lē): Pertaining to front.

anti-B antibodies (ANT-i-bod-ēs): Proteins that will mount an immune response against B antigens.

anti-virals (ant-i-VI-rāl): Treatments that work effectively against a virus.

antiandrogens (ant-ē-AN-drō-jĕns): A group of medications that counteract the effects of male hormones.

antibiotics (ant-i-bī-OT-iks): Medications that stop bacterial infections.

antibodies (ANT-i-bod-ēs): Proteins produced by B lymphocytes in response to a non-self antigen.

antibody (ANT-i-bod-ē): Antigen-specific protein secreted by plasma cells, immunoglobulin.

antigen (ANT-i-jĕn): Molecule recognized by the receptors of b and t lymphocytes.

antigens (ANT-i-jĕns): A substance that provokes an immune response. This happens because the immune system sees the antigen as foreign, or ‘non-self’ (does not belong in that body).

antihypertensives (ant-i-hī-pĕr-TEN-siv): Class of medications used to treat high blood pressure.

antiretrovirals (ant-i-re-trō-VĪ-rāl): Treatment that works against the virus replication.

antrectomy (an-TREK-tō-mē): Excision of the antrum (of the stomach).

anuria (ă-NOOR-ē-ă): Absence of urine.

aortic stenosis (ă-OR-tĭk stĕ-NŌ-sĭs): Narrowing, pertaining to the aorta.

aortogram (ă-OR-tō-grăm): Radiographic image of the aorta.

Apgar score (AP-gar skŏr): Evaluation of a newborn’s physical condition within one to five minutes after birth.

aphakia (ă-FĀ-kē-ă): Condition of no lens.

aphasia (ă-FĀ-zh(ē)-ă): Loss of language function.

aphonia (ă-FŌ-nē-ă): Condition of absence of voice.

apical (AP-ĭ-kăl): Relating to or denoting an apex.

apnea (ap-NĒ-ă): Absence of breathing.

apocrine sweat gland (AP-ŏ-krĕn swet gland): A type of gland that is found in the skin, breast, eyelid, and ear.

apoptosis (ap-ŏp-TŌ-sĭs): Programmed cell death.

appendectomy (ap-ĕn-DEK-tō-mē): Excision of the appendix.

appendicitis (ă-pen-dĭ-SĪT-ĭs): Inflammation of the appendix.

appendicular skeleton (ap-ĕn-DIK-yŭ-lăr SKEL-ĕt-ŏn): Consists of all the bones in the upper and lower limbs.

arachnoid mater (ă-RAK-noyd MĀT-ēr): Middle layer of the meninges named for the spider-web-like trabeculae that extend between it and the pia mater.

arrhythmias (ā-RITH-mē-ă): Absence of a regular heart rhythm.

arterial blood gas (ar-TĒR-ē-ăl blūd gas): This test measures blood pH, oxygen and CO<sub>2</sub> levels in a sample of arterial blood, usually taken from the wrist.

arteries (ART-ē-rēs): Blood vessels that transport blood away from the heart.

arteriogram (ar-TĒR-ē-ō-gram): Radiographic image of an artery.

arterioles (ar-TĒR-ē-ōl-es): A very small artery that leads to a capillary.

arteriosclerosis (ar-tēr-ē-ō-sklē-RŌ-sīs): Hardening of arteries.

arthralgia (ar-THRAL-j(ē-)ă): Joint pain.

arthritis (ar-THRĪT-īs): Inflammation of the joints.

arthrocentesis (ar-thrō-sen-TĒ-sīs): Surgical puncture to aspirate fluid from a joint.

arthroclasia (ar-thrō-KLĀ-zh(ē-)ă): Surgical breaking of a joint.

arthrodesis (ar-THROD-ē-sīs): Surgical fixation of a joint.

arthrography (ar-THROG-ră-fē): Process of recording a joint.

arthroplasty (AR-thrō-plas-tē): Surgical repair of a joint.

arthroscopy (ar-THROS-kō-pē): Process of viewing a joint.

articulations (ar-tik-yū-LĀ-shŏn): also known as joints, where bones meet bones or where bones meet cartilage

artificial insemination (art-ī-FISH-ăl in-sem-ī-NĀ-shŏn): The medical procedure of injecting concentrated sperm into the vagina or uterus.

ascites (ă-SĪT-ēz): Abnormal intraperitoneal accumulation of fluid with large amount of proteins and electrolytes.

aspermia (ā-SPĒR-mē-ă): Condition of without sperm.

asphyxia (ăs-FIK-sē-ă): Deprivation of oxygen to tissues, suffocation.

aspirate (AS-pī-rāt): Suction of fluid, inhalation of fluid.

asthma (AZ-mă): Chronic condition characterized by inflammation, edema of the airway, and bronchospasms which can inhibit air from entering the lungs.

astigmatism (Ast) (ă-STIG-mă-tizm): Blurry vision due to irregular curvature of the cornea or lens.

astrocyte (AS-trō-sīt): Glial cell type of the CNS that provides support for neurons and maintains the blood-brain barrier.

asymptomatic (ā-simp-tō-MAT-ik): Pertaining to without symptoms.

atelectasis (at-ēl-EK-tă-sīs): Incomplete expansion.

atherectomy (ath-ēr-EK-tō-mē): Excision of fatty plaque.

atherosclerosis (ath-ě-rō-sklě-RŌ-sīs): A hardening of the arteries that involves the accumulation of plaque.

atom (AT-ŏm): Smallest unit of pure substances (elements); made up of subatomic particles such as the proton, electron, and neutron.

atrioventricular (AV) (ā-trē-ō-ven-TRIK-yŭ-lār): The area of the heart where the atria and ventricles meet.

atrioventricular valves (ā-trē-ō-ven-TRIK-yŭ-lār valv): Mitral (bicuspid) valve allows blood to flow from left atrium to left ventricle, tricuspid valve allows blood to flow from right atrium to right ventricle.

audiogram (OD-ē-ō-gram): Graphic record (radiographic image) of hearing.

audiologist (od-ē-OL-ŏ-jīst): Specialist who studies and treats the hearing.

audiology (od-ē-OL-ŏ-jē): Study of the hearing.

audiometer (od-ē-OM-ēt-ēr): Instrument used to measure hearing.

audiometry (od-ē-OM-ē-trē): Measuring hearing.

aural (OR-āl): Pertaining to the ear.

auscultation (os-kŭl-TĀ-shŏn): Listening to the heart using a stethoscope.

autocrine (OT-ō-krin): Chemical signal that elicits a response in the same cell that secreted it.

autoimmune disease (OT-ō-im-yŭn diz-ĒZ): A disease caused by the inability for the body to distinguish its own (self) cells from foreign substances, producing antibodies that attacks its own tissues.

autoinoculation (ot-ō-in-ok-yŭ-LĀ-shŏn): Self inoculation.

autonomic (ot-ŏ-NOM-ik): Unconsciously regulates.

autonomic nervous system (ANS) (ot-ŏ-NOM-ik NĒR-vŭs SIS-tēm): Functional division of the nervous system that is responsible for homeostatic reflexes that coordinate control of cardiac and smooth muscle, as well as glandular tissue.

avascular (ă-VĀS-kŭ-lār): Without blood vessels.

axial skeleton (AK-sē-āl SKEL-ēt-ŏn): Forms the vertical, central axis of the body and includes all bones of the head, neck, chest, and back.

axilla (ak-SIL-ă): The armpit.

axon (AK-son): Single process of the neuron that carries an electrical signal (action potential) away from the cell body toward a target cell.

axon hillock (AK-son HĪL-ŏk): Tapering of the neuron cell body that gives rise to the axon.

axon segment (AK-son Seg-měnt): Single stretch of the axon insulated by myelin and bounded by nodes of Ranvier at either end (except for the first, which is after the initial segment, and the last, which is followed by the axon terminal).

axon terminal (AK-son TĒR-mī-nāl): End of the axon, where there are usually several branches extending toward the target cell.

axoplasm (AK-sŏ-plazm): Cytoplasm of an axon, which is different in composition than the cytoplasm of the neuronal cell body.

azoospermia (ā-zō-ō-SPĚR-mē-ă): Absence of viable sperm in the semen.

azotemia (ā-zō-TE-mē-ă): Urea in the blood.

## 19. B

B cells (B sels): Lymphocytes that act by differentiating into an antibody-secreting plasma cell.

Babinski sign (bă-BIN-skē sīn): Dorsiflexion of the foot with extension and splaying of the toes in response to the plantar reflex, normally suppressed by corticospinal input.

bacteria, bacterium (bak-TĒR-ē-ŭm): Single-celled microorganism that reproduces by cell division and may cause infection by invading body tissue.

balanitis (bal-ă-NĪT-īs): Inflammation of the glans penis.

balanoplasty (BAL-ă-nō-plaās-tē): Surgical repair of the glans penis.

balanorrhea (BAL-ă-nō-RĒ-ă): Discharge from the glans penis.

barrier defenses (BAR-ē-ēr dē-FEN-s): Antipathogen defenses deriving from a barrier that physically prevents pathogens from entering the body to establish an infection.

Bartholin's glands (BAR-tō-līns glāns): Responsible to secrete mucus to keep the vestibular area moist.

basal cell carcinoma (BĀ-sāl sel kar-sīn-Ō-ma): Form of cancer that affects the mitotically active stem cells in the stratum basale of the epidermis.

benign (bē-NĪN): Noncancerous, harmless.

benign prostatic hyperplasia (BPH) (bē-NĪN prōs-TĀT-īk hī-pēr-PLĀ-zh(ē-)ă): Excessive development pertaining to the prostate gland.

bicarbonate (bī-KĀR-bō-nāt): A by-product of the body's metabolism.

bilateral (bī-LAT-ē-rāl): Pertaining to both sides.

binocular (bī-ŌK-ŭ-lār): Pertaining to both eyes.

biopsy (BĪ-op-sē): View of life (removal of living tissue to be viewed under a microscope).

bipolar (bī-PŌL-ār): Shape of a neuron with two processes extending from the neuron cell body—the axon and one dendrite.

blepharitis (blēf-ār-Ī-tis): Inflammation of eyelids.

blepharoplasty (BLĒF-ă-rō-plās-tē): Surgical repair of the eyelid.

blepharoptosis (BLĒF-ă-rō-TŌ-sīs): Drooping of the eyelid.

blood-brain barrier (BBB) (blūd- brān BAR-ē-ēr): Physiological barrier between the circulatory system and the central nervous system that establishes a privileged blood supply, restricting the flow of substances into the CNS.

bone marrow (bōn MAR-ō): Tissue found inside bones, the site of all blood cell differentiation and maturation of b lymphocytes.

brachial artery (BRĀ-kē-āl ART-ē-rē): Large artery in the upper arm near the biceps muscle.

bradycardia (brād-i-KARD-ē-ă): Pertaining to a slow heart (rate).

bradykinesia (brād-ē-kī-NĒ-sē-ă): Condition of slow movement.

brain (brān): The large organ of the central nervous system composed of white and gray matter, contained within the cranium and continuous with the spinal cord.

brain stem (brān stem): Region of the adult brain that includes the midbrain, pons, and medulla oblongata and develops from the mesencephalon, metencephalon, and myelencephalon of the embryonic brain.

breast cancer (KAN-sēr): Malignant tumor of the breast.

breech (brēch): The position of the fetus is feet first. Ideally, the position of the fetus should be headfirst for a safer delivery.

Broca's area (brō-KAS AR-ē-ă): Region of the frontal lobe associated with the motor commands necessary for speech production and located only in the cerebral hemisphere responsible for language production, which is the left side in approximately 95 percent of the population.

Brodmann's areas (BRŌD-mans AR-ē-ă): Mapping of regions of the cerebral cortex based on microscopic anatomy that relates specific areas to functional differences, as described by Brodmann in the early 1900s.

bronchitis (brong-KĪT-īs): Inflammation of the bronchus.

bronchoalveolar (brong-kō-al-VĒ-ō-lār): Pertaining to the bronchi and alveoli.

bronchodilators (BRONG-kō-dī-LĀT-ōrs): Substance that dilates the bronchi and bronchioles.

bronchogenic carcinoma (brōng-kō-JĒN-īk kar-sin-Ō-mă): Cancerous tumor originating in a bronchus.

bronchopneumonia (brong-kō-noo-MŌ-nē-ă): Diseased state of bronchi and lungs.

bronchoscope (BRŌNG-kō-skōp): Instrument used for visual examination of the bronchi.

bronchoscopy (bron-KOS-kō-pē): Visual examination of the bronchi.

bronchospasm (BRŌNG-kō-spāzm): Spasmodic contraction of the bronchi.

bronchus-associated lymphoid tissue (balt) (BRONG-kūs ā-sō-s(h)ē-ĀTE LIM-foyd TISH-oo): Lymphoid nodule associated with the respiratory tract.

bruit (brwē): Abnormal blowing, swishing heart sound heard on auscultation.

bulbourethral glands: Glands that secrete a lubricating mucus that cleans and lubricates the urethra prior to and during ejaculation.

bursectomy (būr-SĒK-tō-mē): Excision of bursa.

## 20. C

Caesarian section (C/S, c-section) (si-ZAR-ē-ān SEK-shōn): Delivery of the fetus through an abdominal incision.

calyces (KĀ-lī-sēz): A cuplike cavity or structure.

cancer (KAN-sēr): A process where abnormal cells in the body divide uncontrollably.

capillary (KAP-ī-ler-ē): A microscopic channel that supplies blood to the tissues through perfusion.

capnometer (kāp-NŌM-ē-tēr): Instrument used to measure carbon dioxide.

carbohydrates (kār-bō-HĪ-drāts): The sugars, starches and fibers found in fruits, grains, vegetables and milk products.

carcinogenic (KARS-īn-ō-JEN): Causing cancer.

cardiac (KĀR-dē-āk): Pertaining to the heart.

cardiac muscle (KĀR-dē-āk MŪS-ēl): The heart muscle also known as the myocardium. Its appearance is similar to skeletal muscle. It pumps blood and gives the heart beat.

cardiac notch (KĀR-dē-āk noch): The cardiac notch is an indentation on the surface of the left lung.

cardiac output (KĀR-dē-āk OWT-put): Cardiac output is the measurement of blood flow from the heart through the ventricles, and is usually measured in liters per minute. Any factor that causes cardiac output to increase, by elevating heart rate or stroke volume or both, will elevate blood pressure and promote blood flow.

cardiac tamponade (KĀR-dē-āk tam-pō-NĀD): The pericardial sac surrounding the heart has filled with blood or other fluid and the resulting pressure is preventing the heart from beating effectively.

cardiac troponin (KĀR-dē-āk TRŌ-pō-nīn): The regulatory protein for muscle contraction.

cardiogenic (kār-dē-ō-JĒN-īk): Originating in the heart.

Cardiologist (kār-dē-ŌL-ō-jīst): A physician who studies and treats diseases of the heart.

cardiology (kār-dē-ōl'ō-jē): Study of the heart.

cardiomegaly (kār-dē-ō-MĒG-ā-lē): Enlarged heart.

cardiomyopathy (kard-ē-ō-mī-OP-ā-thē): Disease of the heart muscle.

carina (kā-RĪ-nā): The carina is a ridge of cartilage that separates the two main bronchi.

carotid artery (kā-ROT-īd ART-ē-rē): A large artery in the neck.

carpal (KĀR-pāl): Pertaining to carpal (wrist).

carpectomy (kār-PĒK-tō-mē): Excision of a carpal (wrist).

cataract (KAT-ā-rakt): Abnormal progressive disease of lens characterized by lack of transparency or cloudiness.

cauda equina (KOWD-ā ek-WĒ-nā): Bundle of spinal nerve roots that descend from the lower spinal cord below the first lumbar vertebra and lie within the vertebral cavity; has the appearance of a horse's tail.



caudate (KAW-dāt): Nucleus deep in the cerebrum that is part of the basal nuclei; along with the putamen, it is part of the striatum.

cauterize (KAW-tēr-iz): To burn tissues by various means with the intent to destroy damaged tissues, prevent infections or coagulate blood vessels.

CD4 T cells: CD4 is the receptor that HIV uses to get inside T cells and reproduce. CD4+ helper T cells play an important role in T cell immune responses and antibody responses.

celiac disease (SĒ-lē-āk diz-ĒZ'): Inflammation of the intestines caused by exposure to gluten.

celiotomy (sē-lē-ŌT-ō-mē): Incision into the abdominal cavity.

cell (sel): Smallest independently functioning unit of a living organism.

cellulitis (sel-yŭ-LĪT-īs): Bacterial infection of the skin and subcutaneous tissue, characterized by redness, pain, heat, and swelling.

central nervous system (CNS) (SĒN-trāl NĒR-vŭs SIS-tēm): Anatomical division of the nervous system located within the cranial and vertebral cavities, namely the brain and spinal cord.

central sulcus (SĒN-trāl SŪL-kŭs): Surface landmark of the cerebral cortex that marks the boundary between the frontal and parietal lobes.

centrifuged (sĕn-TRĪF-ŭ-ged): A centrifuge is a common piece of laboratory equipment used to spin test tubes at a high speed in order to separate components in a liquid by weight.

cephalgia (sĕf-ĀL-jē-ă): Pain in the head (headache).

cephalic presentation (sĕ-FAL-ĭk prē-zen-TĀ-shŏn): Birth position in which any part of the head emerges first.

cephalic version (sĕ-FAL-ĭk VĒR-zhŏn): Pertaining to turning the head; this procedure is done on the fetus when they are in the head-down position.

cephalopelvic disproportion (sĕf-ă-lŏ-PĒL-vĭk dis-prŏ-POR-shŏn): A condition where the infant's head is larger than the pelvic outlet and therefore will require a c-section.

cerclage (ser-KLAZH): A suture inserted into the cervix to prevent dilation and prevent miscarriage. The suture is removed when the fetus is full-term and allows the vaginal delivery to proceed.

cerebellitis (sĕr-ĕ-bĕl-Ī-tis): Inflammation of the cerebellum.

cerebellum (sĕr-ĕ-BĒL-ŭm): Region of the adult brain connected primarily to the pons that developed from the metencephalon (along with the pons) and is largely responsible for comparing information from the cerebrum with sensory feedback from the periphery through the spinal cord.

cerebral (SĒR-ă-brĭl, să-RĒ): Pertaining to the brain.

cerebral angiography (SĒR-ă-brĭl, să-RĒ an-jĕ-OG-ră-fĕ): Process of recording (blood) vessel pertaining to the cerebrum.

cerebral cortex (SĒR-ă-brĭl, să-RĒ KOR-teks): Outer gray matter covering the forebrain, marked by wrinkles and folds known as gyri and sulci.

cerebral hemisphere (SĒR-ă-brĭl, să-RĒ HEM-ĭ-sfēr): One half of the bilaterally symmetrical cerebrum.

cerebral thrombosis (SĚR-ă-brīl, sǎ-RĚ throm-bō'sis): Abnormal condition of blood clot pertaining to the cerebrum (blood clot in a blood vessel in the brain).

cerebrospinal fluid (CSF) (sĕr-ĕ-brō-SPI-nāl FLOO-īd): Circulatory medium within the CNS that is produced by ependymal cells in the choroid plexus filtering the blood.

cerebrum (SĚR-ĕ-brūm): Region of the adult brain that develops from the telencephalon and is responsible for higher neurological functions such as memory, emotion, and consciousness.

cervical cancer (KAN-sĕr): Malignant tumor of the cervix, which progresses from cervical dysplasia to carcinoma. Its cause is linked to human papillomavirus (HPV) infection.

cervicitis (sĕr-vī-SĪ-tis): Inflammation of the cervix.

cervix (SĚR-viks): Narrow lower portion of the uterus.

cessation (ses-SĀ-shŭn): Stop or stopping.

cheilorrhaphy (kī-LOR-ă-fĕ): Suturing of the lip.

chemokine (kēm-ō-KĪN): Soluble, long-range, cell-to-cell communication molecule.

chemoreceptors (kē-mō-rē-SEP-tōr): Cells that sense changes in chemical levels.

chemotaxis (kē-mō-TĀK-sis): Movement in response to chemicals; a phenomenon in which injured or infected cells and nearby leukocytes emit the equivalent of a chemical "911" call, attracting more leukocytes to the site.

chlamydia (klā-MID-ĕ-ă): Sexually transmitted disease caused by a very small parasitic bacterium.

cholangiogram (kō-lăn-jĕ-Ō-gram): Radiographic image of the bile duct.

cholangiography (kō-lăn-jĕ-OG-ră-fĕ): Radiographic imaging of the bile duct.

cholangioma (kō-lăn-jĕ-Ō-mă): Tumor of the bile duct.

cholecystectomy (kō-lĕ-sis-TEK-tō-mĕ): Excision of the gallbladder to remove stones.

cholecystitis (kō-lĕ-sis-TĪT-is): Inflammation of the gallbladder.

choledocholithiasis (kō-LED-ō-kō-lī-THĪ-ă-sis): Condition of stones in the common bile duct.

choledocholithotomy (kō-LED-ō-kō-lī-THŌT-ō-mĕ): Incision into the common bile duct to remove stones.

cholelithiasis (kō-lī-lith-Ī-ă-sis): Condition of gallstones.

chondrectomy (kōn-DRĚK-tō-mĕ): Excision of cartilage.

chondromalacia (kon-drō-mă-LĀ-sh(ĕ)-ă): Softening of cartilage.

chondroplasty (KŌN-drō-plās-tĕ): Surgical repair of cartilage.

chorioamnionitis (kōr-ĕ-ō-am-nĕ-ō-NĪT-is): Inflammation of the chorion and amnion.

choriocarcinoma (kōr-ĕ-ō-kar-sĭn-Ō-mă): Cancerous tumor of the chorion.

choroid plexus (KŌ-royd PLEKS-ŭs): Specialized structure containing ependymal cells that line blood capillaries and filter blood to produce CSF in the four ventricles of the brain.

chorionic villus sampling (KÖRē-onic VĪL-ūs SAM-pling): A small piece of placenta is taken and tested to determine potential for birth defects.

chronic (KRON-īk): A condition the lasts over a long time with periods of exacerbation and periods of remission.

chronic inflammation (KRON-īk in-flā-MĀ-shōn): Inflammation occurring for long periods of time.

chronic obstructive pulmonary disease: Term used to represent a number of respiratory diseases including chronic bronchitis and emphysema.

chyle (kīl): Lipid-rich lymph inside the lymphatic capillaries of the small intestine.

cilia (SIL-ē-ă): Tiny hairline processes.

circumcision (sīr-kūm-SIZH-ōn): Surgical removal of the prepuce (foreskin).

cirrhosis (sī-RŌ-sīs): Chronic degenerative disease of the liver.

cisterna chyli (sis-TĒR-nă kī-lī): Bag-like vessel that forms the beginning of the thoracic duct.

clavicular (klā-VĪK-ū-lār): Pertaining to the clavicle.

clubbing of the fingers and toes: Broadening of the nails and exaggerated curvature of the nails.

cochlear (KOK-lē-ăr): Pertaining to the cochlea.

cochlear implant (KOK-lē-ă IM-plant): Pertaining to the cochlear implant.

coitus (KŌ-ī-tūs): Sexual intercourse between male and female.

colectomy (kō-LEK-tō-mē): Excision of the colon.

colitis (kō-LĪT-īs): Inflammation of the colon.

colonoscope (kō-LŌN-ō-skōp): Instrument used to view the colon.

colonoscopy (kō-lō-NOS-kō-pē): Process of viewing the colon.

colorectal (kō-lō-REK-tāl): Pertaining to the colon and rectum.

colostomy (kō-LOS-tō-mē): Creation of an artificial opening in the colon.

colostrum (kō-LOS-trūm): Thin, milky fluid secreted by the breast during pregnancy and the first few days after delivery.

colpocleisis (kol-pō-KLĪ-sīs): Surgical closure of the vagina.

colpoperineorrhaphy (kol-pō-per-ī-nē-OR-ă-fē): Suturing of the vagina and the perineum.

colpoplasty (KŌL-pō-plās-tē): Surgical repair of the vagina.

colporrhaphy (kol-POR-ă-fē): Suturing of (a tear in) the vagina.

colposcope (KŌL-pō-skōp): Instrument used to view the vulva.

colposcopy (kōl-PŌS-kō-pē): Process of viewing the vagina.

combining form: A word root with a combining form vowel.

combining form vowel: Vowel that is used to join word parts and to ease pronunciation. The most common combining form vowel is an “o” but sometimes it is an “i” or an “e”.

complement (KOM-plě-měnt): Enzymatic cascade of constitutive blood proteins that have antipathogen effects, including the direct killing of bacteria.

compliance (kõm-PLĪ-ăns): The ability of the blood vessels to dilate and constrict as needed.

computerized tomography (CT) (tõ-MOG-ră-fě): A special 3-dimensional x-ray.

condom (KON-dõm): Sheath (cover) for penis worn during coitus to prevent conception and spread of sexually transmitted infection.

conducting zone (KÖN-dük-TĪNG zõn): The major functions of the conducting zone are to provide a route for incoming and outgoing air, remove debris and pathogens from the incoming air, and warm and humidify the incoming air. Several structures within the conducting zone perform other functions as well. The epithelium of the nasal passages, for example, is essential to sensing odors, and the bronchial epithelium that lines the lungs can metabolize some airborne carcinogens.

congenital (kõn-JĚN-ĭ-tăl): Present at birth.

congenital anomaly (kõn-JĚN-ĭ-tăl ă-NOM-ă-lě): Abnormality present at birth.

conjunctivitis (kõn-jũnk-tĩ-VĪT-ĭs) Inflammation of the conjunctiva.

connective tissue membrane (kõ-NEK-tiv TISH-oo MEM-brân): Tissue membrane formed solely from connective tissue; encapsulates organs and lines movable joints.

contraception (kon-tră-SEP-shõn): Intentional prevention of conception (pregnancy).

contusion (kõn-TOO-zhõn): Bruise.

convex (KÖN-věks): Curved outwards.

corneal (KOR-ně-ă): Pertaining to the cornea.

coronary artery bypass graft (KOR-õ-ner-ě ART-ě-rě bĩ-păs graft): In a coronary bypass procedure, a non-vital superficial vessel from another part of the body (often the great saphenous vein) or a synthetic vessel is inserted to create a path around the blocked area of a coronary artery.

coronary heart disease (KOR-õ-ner-ě hart diz-ĚZ'): The blood vessels that supply blood to the myocardium become hardened and narrowed, impairing the delivery of oxygen to the heart muscle.

corpus callosum (KOR-pũs kă-LÕ-sũm): Large white matter structure that connects the right and left cerebral hemispheres.

corpus cavernosum (KOR-pũs kă-věr-nõ-SÕM): Either of two columns of erectile tissue in the penis that fill with blood during an erection.

corpus spongiosum (KOR-pũs spũn"jě-õ-SÕM): (Plural = corpora cavernosa) column of erectile tissue in the penis that fills with blood during an erection and surrounds the penile urethra on the ventral portion of the penis.

cortical (KOR-tĩ-kăl): Pertaining to the cortex.

corticoid (KOR-tĩ-koyd): Resembling the cortex.

costectomy (kös-TĚK-tō-mē): Excision of rib(s).

costochondral (kös-tō-KÖN-drāl): Pertaining to ribs and cartilage.

cranial (KRĀ-nē-āl): Pertaining to the cranium.

craniocerebral (krā-nē-ō-sēr-Ē-brāl): Pertaining to the cranium and cerebrum.

cranioplasty (KRĀ-nē-ō-plās-tē): Surgical repair of the cranium.

cranioschisis (krā-nē-ÖS-kī-sīs): Fissure of the cranium.

craniotomy (krā-nē-ÖT-ō-mē): Incision into the cranium.

creatine kinase MB (KRĒ-ă-tīn KĪN-ās): An enzyme that catalyzes the conversion of creatine to phosphocreatine, consuming ATP.

Crohn's disease (krōnz diz-ĒZ'): A type of inflammatory bowel disease.

cryoretinopexy: Surgical fixation of the retina using extreme cold.

cryptorchidism (krip-TOR-kīd): State of hidden testis.

crypts (kripts): A depression, or pit in an otherwise fairly flat surface.

CT colonography (CT kō-lo-NO-gră-fē): Radiographic imaging of the colon using computed tomography.

CT myelography (CT mī-ē-LÖG-ră-fē): Process of recording the spinal cord with computed tomography.

cutaneous membrane (kū-TĀ-nē-ūs MEM-brān): Epithelial membrane; skin.

cyanosis (sī-ă-NŌ-sīs): Abnormal condition of blue (bluish color, lips and nail beds). Typically caused by low oxygenation.

cyanotic (sī-ăn-ÖT-īk): Pertaining to abnormal color of blue (bluish color, lips and nail beds) caused by deoxygenation.

cyst (sist): Closed sac containing fluid or semisolid material.

cystectomy (sis-TĚK-tō-mē): Excision of the bladder.

cystitis (sis-TĪT-is): Inflammation of the bladder.

cystocele (SIS-tō-sēl): Protrusion of the bladder.

cystogram (SĪS-tō-grām): Radiographic image of the bladder.

cystography (sis-TÖG-ră-fē): Radiographic imaging of the bladder.

cystolith (SĪS-tō-līth): Stone(s) in the bladder.

cystolithotomy (sis-tō-lī-THŌ-tō-mē): Incision into the bladder to remove stone(s).

cystorrhaphy (sist-OR-ă-fē): Suturing the bladder.

cystoscope (SIST-ō-skōp): Instrument used for visual examination of the bladder.

cystostomy (sis-TOT-ō-mē): Creation of an artificial opening into the bladder.

cystotomy (sis-TOT-ō-mē): Incision into the bladder.

cytokine (SĪT-ō-kīn): Soluble, short-range, cell-to-cell communication molecule.

## 2I. D

dacrocystitis (dak-rē-ō-sis-TĪT-īs): Inflammation of the tear (lacrimal) sac.

dacryocystorhinostomy (dak-rē-ō-sis-tō-rī-NOS-tō-mē):

deamination (dē-am-ī-NĀ-shōn): The removal of an amino group from a molecule.

debride, debridement (di-BRĒD, di-BRĒD-mēnt): Remove damaged tissues and cell debris from a wound or burn to prevent infection and promote healing.

deep (DĒP): Describes a position farther from the surface of the body.

deep lymphatic vessels (dēp lim-FAT-ik VES-ēls): Lymphatic vessels of the organs.

defensins (dē-FĒN-sins): The lysozyme enzyme and proteins which have antibacterial properties.

dehydration (dē-hī-DRĀ-shōn): Loss of fluids/water is greater than what is taken in.

dendrite (DEN-drīt): One of many branchlike processes that extends from the neuron cell body and functions as a contact for incoming signals (synapses) from other neurons or sensory cells.

dendritic cells (den-DRIT-ik): Pertaining to dendrites.

dermabrasion (DĒRM-ă-brā-zhōn): Procedure to remove superficial scars using sandpaper or revolving wire brushes.

dermatitis (dēr-mă-TĪT-īs): Inflammation of the skin.

dermatoautoplasty (dēr-mă-tō-AW-tō-plās-tē): Surgical repair using one's own skin.

dermatosis (dēr-mă-tō-kō-nē-Ō-sīs): Abnormal condition of the skin caused by dust.

dermatofibroma (dēr-mă-tō-fī-BRŌ-mă): Fibrous tumor of the skin.

dermatoheteroplasty (dēr-mă-tō-HĒT-ēr-ō-plās-tē): Surgical repair using skin from others.

dermatologic (dēr-mă-TŌL-ō-jik): Pertaining to dermatology.

dermatologist (dēr-mă-TŌL-ō-jist): Physician who specializes in treating diseases and disorders of the skin.

dermatology (dēr-mă-TŌL-ō-jē): Study of the skin.

dermatome (DĒR-mă-tōm): Instrument used to cut skin.

dermatopathology (dēr-măt-ō-pă-THOL-ō-jē): Study of diseases of the skin.

dermatoplasty (DĒR-măt-ō-plas-tē): Plastic surgery of the skin.

dermis (DĒR-mīs): The layer of skin that is made of dense, irregular connective tissue that houses blood vessels, hair follicles, sweat glands, and other structures.

descending tract (dē-SEN-ding trakt): Central nervous system fibers carrying motor commands from the brain to the spinal cord or periphery.

detrusor (dē-TRŪ-zōr): A muscle which forms a layer of the wall of the bladder.

diabetes mellitus (DM) (dī-ă-BĒT-ēz): An endocrine system disorder in which the pancreas does not produce insulin or the cells of the body do not respond to insulin. This results in high levels of glucose in the blood.

diapedesis (dī-ă-pĕ-DE-sīs): The passage of blood cells through the intact walls of the capillaries, typically accompanying inflammation.

diaphoresis (dī-ă-fō-RĒ-sīs): Profuse, excessive sweating.

diaphragm (dī-ă-FRAM): A flat, dome shaped muscle located at the base of the lungs and thoracic cavity.

diaphragmatic (dī-ă-frăg-MAT-ik): Pertaining to the diaphragm.

diaphragmatocele (dī-ă-frăg-MAT-ō-sĕl): Hernia of the diaphragm.

diarthrosis (dī-ar-THRŌ-sīs): Freely moveable joints.

diastole (dī-AS-tō-lē): Phase in the cardiac cycle where heart muscles relax allowing the chambers to fill with blood.

diastolic pressure (dī-AS-tō-lic): The diastolic pressure is the lower value (usually about 80 mm Hg) and represents the arterial pressure of blood during ventricular relaxation, or diastole.

diencephalon (dī-ĕn-SEF-ă-lŏn): Region of the adult brain that retains its name from embryonic development and includes the thalamus and hypothalamus.

dilation and curettage (D&C) (dī-LĀ-shŏn and kū-rĕ-TĀZH): A procedure where the cervix is dilated (widened) and a curette (a sharp instrument) is used to remove the lining of the uterus. This procedure is conducted when there is abnormal bleeding from the uterus and also to remove any products of conception, for example following an incomplete miscarriage or abortion.

diplopia (dip-LŌ-pĕ-ă): Double vision.

direct pathway: Connections within the basal nuclei from the striatum to the globus pallidus internal segment and substantia nigra pars reticulata that disinhibit the thalamus to increase cortical control of movement.

discectomy (dis-KEK-tō-mĕ): Excision of the intervertebral disk.

diskitis (dis(k)-ĪT-īs): Inflammation of the intervertebral disk.

distal (DIS-tāl): Describes a position in a limb that is farther from the point of attachment or the trunk of the body.

distended (dis-TEN-ded): Stretch out.

diuresis (dī-yŭ-RĒ-sīs): Condition of urine passing through.

diverticulectomy (dī-vĕr-tĭk-ŭ-LĒK-tō-mĕ): Excision of the diverticula.

diverticulitis (dī-vĕr-tĭk-yŭ-LĪT-īs): Inflammation of the diverticulum.

diverticulosis (dī-vĕr-tĭk-yŭ-LŌ-sīs): Abnormal condition of having diverticula.

dorsal (posterior) nerve root (DOR-sāl (pŏs-TĒ-rĕ-or) nĕrv root): Axons entering the posterior horn of the spinal cord.

douching (doosh-ing): Washing the vagina with fluid.

ductus arteriosus (DŬK-tŭs ă-r-tĕ-rĕ-Ō-sŭs): Connection between pulmonary trunk and aorta in the fetal heart.



ductus deferens (DŮK-tūs DEF-ě-rěnz): Duct that transports sperm from the epididymis through the spermatic cord and into the ejaculatory duct.

duodenal (doo-ō-DĚN-āl): Pertaining to the duodenum.

dura mater (DOOR-ă MĀT-ēr): Tough, fibrous, outer layer of the meninges that is attached to the inner surface of the cranium and vertebral column and surrounds the entire CNS.

duritis (dū-RĪ-tīs): Inflammation of the dura mater.

dysentery (DIS-ěn-ter-ē): Inflammation of the intestine presenting with abdominal pain and bloody diarrhea.

dyskinesia (dis-kī-NĚ-zh(ē-)ă): Condition of difficult movement.

dysmenorrhea (dis-men-ō-RĚ-ă): Painful periods.

dyspareunia (dis-pă-ROO-nē-ă): Painful intercourse.

dyspepsia (dis-PEP-shă, sē-ă): Difficult digestion.

dysphagia (dis-FĀ-j(ē-)ă): Difficulty swallowing.

dysphasia (dis-FĀ-zh(ē-)ă): Condition of difficulty speaking.

dysphonia (dis-FŌ-nē-ă): Condition of difficult speaking (voice).

dyspnea (dis(p)-NĚ-ă): Difficulty breathing.

dystocia (dis-TŌ-sh(ē-)ă): Labor that is difficult.

dystrophy (DIS-trō-fē): Abnormal development.

dysuria (dis-ŪR-ē-ă): Difficult or painful urine.

## 22. E

eccrine sweat gland (ĚK-rĭn swet gland): Type of gland that produces a hypotonic sweat for thermoregulation.

echocardiogram (ěk-ō-KĀR-dē-ō-grām): A record (using) sound of the heart.

echocardiography (ek-ō-kard-ē-OG-ră-fē): Process of using sound to record the heart.

eclampsia (e-KLAMP-sē-ă): A very serious condition in pregnancy with hypertension; patients are at high risk of coma, convulsions, and even death.

ectopic pregnancy (ek-TOP-ik PREG-năn-sē): The embryo implants any other place but the inner endo-uterine lining.

eczema (eg-ZĒ-mă): Noninfectious, inflammatory disease presents as redness, blisters, scabs, and itching.

edema (ě-DĒ-mă): Puffy swollen tissue due to accumulation of fluid.

efferent lymphatic vessels (EF-ě-rĕnt lim-FAT-ik VES-ĕls): Lead out of a lymph node.

efferent nerves (EF-ě-rĕnt nĕrvs): Nerve tissue that carries impulses away from the CNS towards the peripheral that result in motor response (movement).

ejaculation (i-jak-yŭ-LĀ-shŏn): The action of ejecting semen from the body.

ejaculatory duct (ē-JĀK-ŭ-lă-tŏr-ē dŭkt): Duct that connects the ampulla of the ductus deferens with the duct of the seminal vesicle at the prostatic urethra.

electrocardiogram (ECG, EKG) (ē-lĕk-trō-KĀR-dē-ō-grām): A recording of the electrical impulses in the heart.

electrocardiograph (ē-lĕk-trō-KĀR-dē-ō-grăf): Instrument used to record electrical activity within the heart.

electrocardiography (ē-lĕk-trō-KĀR-dē-ŎG-ră-fē): Process of recording the electrical (activity) of the heart.

electrocochleography (ē-lek-trō-kok-lē-OG-ră-fē): Process of recording the electrical activity in the cochlea.

electroencephalogram (ĕ-lek-trō-ĕn-SEF-ă-lŏ-gram): The record of electrical activity of the brain.

electroencephalograph (ē-lĕk-trō-ĕn-SĚF-ă-lŏ-grăf): Instrument used to record electrical activity of the brain.

electroencephalography (ĕ-lek-trō-ĕn-sef-ă-LOG-ră-fē): Process of recording the electrical activity of the brain.

electromyography (ē-lĕk-trō-mĭ-ŎG-ră-fē): Measures muscle response or electrical activity in response to a nerve's stimulation of the muscle.

elements (EL-ĕ-mĕnts): Unique pure substances.

embolus (EM-bŏ-lŭs): Obstruction in a blood vessel such as a blood clot, fatty mass, air bubble, or other foreign matter that interrupts the flow of blood to an organ or some part of the body.

embryogenic (ĕm-brĕ-ō-JĚN-ĭk): Producing an embryo.

embryoid (EM-brĕ-ŏyd): Resembling an embryo.

emesis (ĚM-ĕ-sĭs): Vomiting.

emulsification (ē-mŭl-sī-fī-KĀ-shŭn): The process of breaking down the fat into smaller blood cells which makes it easy for enzymes to function and digest food.

encephalitis (en-sef-ă-LĪT-is): Inflammation of the brain.

encephalomalacia (en-sef-ă-lō-mă-LĀ-sh(ē-)ă): Softening of the brain.

encephalomyeloradiculitis (ĕn-sĕf-ă-lō-mī-ĕ-lō-ră-dĭk-ŭ-LĪ-tis): Inflammation of brain, spinal cord and nerve roots.

encephalosclerosis (ĕn-SĒF-ă-lō-sklă-RŌ-sis): Hardening of the brain.

endarterectomy (ĕnd-ăr-tĕr-ĒK-tō-mē): Excision within the artery.

endocarditis (en-dō-kar-DĪT-is): Inflammation of the inner (lining) of the heart.

endocervical (en-dō-SĒR-vi-kăl): Pertaining to within the cervix.

endocrine gland (En-dō-krĭn gland): Tissue or organ that secretes hormones into the blood and lymph without ducts such that they may be transported to organs distant from the site of secretion.

endocrine system (En-dō-krĭn SIS-tĕm): Cells, tissues, and organs that secrete hormones as a primary or secondary function and play an integral role in normal bodily processes.

endocrinologist (ĕn-dō-krĭ-NŌL-ŏ-jĭst): Specialist who studies and treats diseases of the endocrine system.

endocrinology (ĕn-dō-krĭn-ŌL-ŏ-jĕ): The study of the endocrine glands and hormones.

endocrinopathy (ĕn-dō-krĭn-ŌP-ă-thĕ): Disease of the endocrine system.

endometrial cancer (en-dō-MĒ-trĕ-ăl KAN-sĕr): Malignant tumor of the endometrium (also called uterine cancer).

endometriosis (en-dō-mĕ-trĕ-Ō-sis): Abnormal condition of the endometrium.

endometritis (e-dō-mĕ-TRĪT-is): Inflammation of the endometrium.

endometrium (en-dō-MĒ-trĕ-ŭm): The innermost layer containing a connective tissue lining covered by epithelial tissue that lines the lumen. Provides the site of implantation for a fertilized egg. Sheds during menstruation if no egg is fertilized.

endophthalmitis (ĕn-dŏf-thăl-MĪ-tis): Inflammation within the eye.

endoscope (EN-dŏ-skŏp): Instrument used to view within (hollow organs).

endoscopic (en-dŏ-SKŌPik): Pertaining to view within.

endoscopy (en-DOS-kŏ-pĕ): Visual examination within.

endothelium (en-dŏ-THĒ-lĕ-ŭm): The lining of the lumen of a blood vessel.

endotracheal (ĕn-dŏ-TRĀ-kĕ-ăl): Pertaining to within the trachea.

enteric nervous system (ENS) (en-TER-ik NĒR-vŭs SIS-tĕm): Neural tissue associated with the digestive system that is responsible for nervous control through autonomic connections.

enteropathy (ent-ĕ-ROP-ă-thĕ): Disease of the intestines.

enterorrhaphy (ĕn-tĕr-OR-ă-fĕ): Suturing of the intestine.

enucleation (ē-nū-klē-Ā-shŭn): Excision of a whole organ or mass without cutting into it.

enuresis (en-ū-RĒ-sīs): Involuntary urination.

ependymal cell (ep-EN-dī-māl sel): Glial cell type in the CNS responsible for producing cerebrospinal fluid.

epidermal (ĕp-ī-DĒR-mal): Pertaining to upon/on the skin.

epidermis (ep-i-DĒR-mīs): Outer layer of skin, made of closely packed epithelial cells.

epididymectomy (ĕp-ī-dīd-ī-MĚK-tō-mē): Excision of the epididymis.

epididymis (ep-i-DID-ī-mīs): (plural = epididymides) Coiled tubular structure in which sperm start to mature and are stored until ejaculation.

epididymitis (ep-ī-did-ī-MĪT-īs): Inflammation/swelling of the epididymis.

epiglottis (EP-i-GLOT-īs): The epiglottis, attached to the thyroid cartilage, is a very flexible piece of elastic cartilage that covers the opening of the trachea.

epinephrine (ep-ī-NEF-rin): Also known as adrenaline, is a hormone and neurotransmitter and produced by the adrenal glands.

epiphyses (ĕ-PĪF-ī-sīs): The ends of long bones, singular is epiphysis.

episioperineoplasty (i-piz-ē-ō-per-ī-NĒ-ō-plas-tē): Surgical repair of the vulva and the perineum.

episiorrhaphy (epē-sē-OR-ă-fē): Suturing of the vulva.

episiotomy (i-piz-ē-OT-ō-mē): A procedure where an incision is made to widen the vaginal opening to prevent ripping or tearing of the perineum during delivery.

epistaxis (ĕp-ī-STĀK-sīs): Nose bleed (rhinorrhagia).

epithalamus (ep-i-THAL-ă-mŭs): Region of the diencephalon containing the pineal gland.

epithelial membrane (ep-i-THĒ-lē-ăl MEM-brān): Membrane composed of epithelium attached to a layer of connective tissue.

eponym (ĔP-ō-nīm): Terms that are named after a place or person.

erectile dysfunction (ĕ-RĚK-tīl dis-FŬNGK-shŏn): The inability of a male to attain or maintain an erection sufficient to perform sexual intercourse.

erythroblastosis fetalis (ĕ-rīth-rō-blās-TŌ-sīs fĕ-TAL-īs): Disease of rh factor-positive newborns in rh-negative mothers with multiple rh-positive children; resulting from the action of maternal antibodies against fetal blood.

erythrocytes (ĕ-RĪTH-rō-sīts): Red blood cells.

erythrocytopenia (ĕ-rīth-rō-sī-tō-PĒ-nē-ă): Abnormal reduction of red (blood) cells.

erythroderma (ĕ-rīth-rō-DĒR-mă): Red skin.

erythropoietin (ĕ-rīth-rō-POY-ĕ-tīn): Hormone produced by the kidneys that plays an important role in the homeostasis of red blood cells levels in the body.

esophageal (ē-sof-ă-JĒ-ăl): Pertaining to the esophagus.

esophagitis (ĕ-sof-ă-JĪT-is): Inflammation of the esophagus.

esophagogastroduodenoscopy (EGD) (ĕ-sof-ă-gō-gas-trō-doo-ō-dē-NOS-kō-pē): Process of viewing the esophagus, stomach and duodenum.

esophagogastroplasty (ĕ-SŌF-ă-gō-GĀS-trō-plās-tē): Surgical repair of the esophagus and stomach.

esophagogram (ĕ-SOF-ă-gō-gram): Radiographic image of the esophagus.

esophagoscopy (ĕ-sof-ă-GOS-kō-pē): Process of viewing the esophagus.

euglycemia (ū-glī-SĒ-mē-ă): Normal (level) of blood sugar in the blood.

eupnea (ūp-NĒ-ă): Normal breathing.

euthyroid (ū-THĪ-royd): Resembling a normal thyroid gland.

excise, excision (ĕk-SĪZ, ek-SIZH-ōn): Remove by cutting out.

excretion (ĕks-KRĒ-shŭn): Waste is eliminated from an organism. In vertebrates this is primarily carried out by the lungs, kidneys and skin.

exocrine (ĒKS-ō-krĭn): To secrete externally, directly or through a duct.

exocrine system (ĒKS-ō-krĭn SIS-tēm): Cells, tissues, and organs that secrete substances directly to target tissues via glandular ducts.

exocytosis (ĕks-ō-sī-TŌ-sis): Active transport of molecules out of the cell.

expiration (ĕks-pĭ-RĀ-shŭn): Exhalation or the process of causing air to leave the lungs.

external nose (IK-stərnl nōz): The external nose consists of the surface and skeletal structures that result in the outward appearance of the nose and contribute to its numerous functions.

extramedullary hemopoiesis (eks-tră-MED-ŭl-er-rē hē-mō-poy-Ē-sis): Hemopoiesis outside the medullary cavity of adult bones.

## 23. F

fallopian tubes (uterine tubes) (fă-lō'pē-ăn toobs (ŪT-ě-rīn toobs)): Pair of tubes attached to the uterus providing a passageway for the ovum to move from the ovary to the uterus.

fascia (FASH-ē-ă): Fibrous tissue.

fauces (FO-sēz): The fauces is the opening at the connection between the oral cavity and the oropharynx.

feces (FĒ-sēz): Stool, fecal matter.

femoral (FEM-ō-rāl): Pertaining to the femur.

fetal (FĒT-ăl): Pertaining to the fetus.

fibrocystic breast changes (FCC) (fī-brō-SĪS-tīk): Fibrosis, benign cysts, and pain or tenderness in one or both breasts (also called fibrocystic breasts).

fibroelastic membrane (fī-brō-ē-LĀS-tīk MEM-brān): A fibroelastic membrane is a flexible membrane that closes the posterior surface of the trachea, connecting the C-shaped cartilages.

fibromyalgia (fī-brō-mī-AL-j(ē-)ă): Pain in the fibrous tissues of muscles.

fissures (FISH-ŭ-res): A groove, natural division or elongated cleft, furrow or tear; naturally occurring in the brain, they are also known as sulcus/sulci.

fistula (FIS-chŭ-lă): Abnormal passageway between two organs or an internal organ and the body surface.

flatus (FLĀ-tŭs): Gas in the GI tract.

foramen magnum (fō-RĀ-mĕn MAG-nŭm): Large opening in the occipital bone of the skull through which the spinal cord emerges and the vertebral arteries enter the cranium.

foramen ovale (fō-RĀ-mĕn Ō-vāl): Opening between right and left atria, which is normal in the fetal heart.

fornix (FOR-niks): Superior portion of the vagina.

frontal lobe (FRŌN-tal lōb): Region of the cerebral cortex directly beneath the frontal bone of the cranium.

frontal plane: Plane that divides the body or an organ into an anterior (front) portion and a posterior (rear) portion.

frostbite (FROST-bīt): Conservation of core body heat results in the skin actually freezing.

fundus (FŪN-dŭs): A part of a hollow organ.

## 24. G

gamete (GAM-ēt): Haploid reproductive cell that contributes genetic material to form an offspring.

gangliitis (gang-glē-Ī-tīs): Inflammation of the ganglion.

ganglion (GANG-glē-ōn): Localized collection of neuron cell bodies in the peripheral nervous system.

ganglionectomy (gang-lē-ō-NĚK-tō-mē): Excision of a ganglion.

gangrene (GANG-grĕn): Death of tissue due to blood supply loss.

gastrectomy (ga-STREK-tō-mē): Excision of the stomach.

gastric (GAS-trik): Pertaining to the stomach.

gastritis (gas-TRĪT-īs): Inflammation of the stomach.

gastroenteritis (gas-trō-ent-ĕ-RĪT-īs): Inflammation of the stomach and intestines.

gastroenterocolitis (gās-trō-ĕn-tĕr-ō-kōl-Ī-tīs): Inflammation of the stomach, intestines, and colon.

gastroenterology (gās-trō-ĕn-tĕr-ŌL-ă-jĕ): Study of the stomach and intestines.

gastrojejunostomy (gās-trō-jĕ-jū-NŌS-tō-mē): Creation of an artificial opening between the stomach and the jejunum.

gastroplasty (GĀS-trō-plās-tĕ): Surgical repair of the stomach.

gastroscope (GAS-trō-skōp): Instrument used to view the stomach.

gastroscope (gas-TROS-kō-pĕ): Process of viewing the stomach.

gastrostomy (gās-TRŌS-tō-mē): Creation of an artificial opening in the stomach.

genetic recombination (jĕn-ĒT-ĭk rĕ-kom-bĭ-NĀ-shŏn): The combining of gene segments from two different pathogens.

genital herpes (EN-ĭt-ăl HĔRP-ĕz): A sexually transmitted disease characterized by blisters in the genital area, caused by the herpes simplex virus type 2.

gestation (jes-TĀ-shŏn): The process of being pregnant.

gestational diabetes (jes-TĀ-shŏn-al dĭ-ă-BĔT-ĕz): The condition of developing diabetes during pregnancy. The newborn tend to be large at delivery and the mother is monitored closely for weight gain and glucose testing. The goal is to balance the sugars so the fetus is not too large for a vaginal delivery.

gestational hypertension (jes-TĀ-shŏn hĭ-pĕr-TEN-shŏn): A condition where there is an increase in blood pressure during pregnancy. Blood pressure is monitored closely during pregnancy for the safety of the mother and infant.

gingivectomy (jĭn-jĭ-VĔK-tō-mē): Excision of the gums.

gingivitis (jĭn-jĭ-VĪT-īs): Inflammation of the gums.

glans penis (glanz PĔ-nĕz): Bulbous end of the penis that contains a large number of nerve endings.

glial cell (GLĪ-āl sel): One of the various types of neural tissue cells responsible for maintenance of the tissue, and largely responsible for supporting neurons.

glioblastoma (glī-ō-blās-TŌ-mă): Tumor composed of developing glial tissue.

gliocyte (GLĪ-ō-sīt): Glial cell.

glioma (glī-Ō-mă): Tumor composed of the glial tissue.

glomerulonephritis (glō-mer-yŭ-lō-ně-FRĪT-īs): Inflammation of the gomeruli of the kidney.

glossitis (glo-SĪT-īs): Inflammation of the tongue.

glossopharyngeal (glos-ō-fă-RIN-j(ē-)ăl): Pertaining to tongue and throat.

glossorrhaphy (glō-SOR-ă-fē): Suturing of the tongue.

glottis (GLOT-īs): The glottis is composed of the vestibular folds, the true vocal cords, and the space between these folds.

glycemia (glī-SĒ-mē-ă): Sugar in the blood.

glycosuria (glī-kō-SHOOR-ē-ă): Sugar (glucose) in the urine.

gonadotropin-releasing hormone (GnRH) (gō-nad-ō-TRŌ-pīn ri-LĒS-ing HOR-mōn): Hormone released by the hypothalamus that regulates the production of follicle-stimulating hormone and luteinizing hormone from the pituitary gland.

gonads (GŌ-nads): Reproductive organs (testes in men and ovaries in women) that produce gametes and reproductive hormones.

gonorrhea (gon-ō-RĒ-ă): A sexually transmitted disease involving inflammatory discharge from the urethra or vagina.

graft-versus-host disease: In bone marrow transplants, occurs when the transplanted cells mount an immune response against the recipient.

gravida (GRĀV-ī-dă): Pregnant (woman) Note, that this is referring to a woman who is or has been pregnant regardless of outcome.

gray matter (gray MAT-ēr): Regions of the nervous system containing cell bodies of neurons with few or no myelinated axons; actually may be more pink or tan in color, but called gray in contrast to white matter.

great vessels (grăt VES-ěls): The great vessels include the superior vena cava, inferior vena cava, aorta and pulmonary trunk.

gynecologist (gīn-ē-KOL-ō-jīst): Specialist in the study and treatment of the female reproductive system.

gynecology (gī-ně-KOL-ō-jē): The study of the female reproductive system.

gynopathic (gī-nō-PATH-īk): Pertaining to the women.

gyrus/gyri (JĪ-rŭs/JĪ-rī): Ridge formed by convolutions on the surface of the cerebrum or cerebellum.



## 25. H

hard palate (hard PAL-ăt): The hard palate is located at the anterior region of the nasal cavity and is composed of bone.

heart murmur (hart MŪR-mŭr): An abnormal heart sound.

heart rate (hart rāt): The number of times the heart contracts in one minute.

hematocrit (hē-MAT-ō-krit): A lab test which measures the percentage red blood cells in a sample of whole blood. It represents how much of the person's blood is made up of red blood cells, by volume.

hematologist (hēm-ă-TÖL-ō-jist): Physician who specializes and treats blood disorders.

hematology (hēm-ă-TÖL-ō-jē): Study of blood.

hematoma (hēm-ă-TŌ-mă): Tumor composed of blood.

hematopoiesis (hē-mat-ō-poy-Ē-sis): The process in which the body produces blood.

hematosalpinx (hē-măt-ō-SAL-pingks): Blood in the uterine/fallopian tube.

hematuria (hē-mă-TOOR-ē-ă): Blood in the urine.

hemicolectomy (hēm-ē-kō-LĒK-tō-mē): Excision of half of the colon.

hemiparesis (hēm-ē-PĀR-ē-sis): Slight paralysis of half (right or left) side of the body.

hemiplegia (hēm-ē-PLĒ-jē-ă): Paralysis that effects one side of the body.

hemodialysis (HD) (hē-mō-dī-ĀL-ī-sis): Procedure for removing impurities from the blood due to an inability of the kidney to function.

hemolysis (hemolysis): Breaking apart of the erythrocyte cell membrane, allowing its contents to leak out.

hemopoiesis (hē-mō-poy-Ē-sis): The production of blood cells and platelets, which occurs in the bone marrow.

hemopoietic growth factors: Chemical messengers which promote the proliferation and differentiation of formed elements and include erythropoietin, thrombopoietin, colony-stimulating factors, and interleukins.

hemorrhage (HEM-(ō-)rāj): Excessive or uncontrolled bleeding from the blood vessels.

hemorrhagic stroke (HEM-(ō-)rāj-ik strōk): Disruption of blood flow to the brain caused by bleeding within the cranial vault.

hemorrhoids (HEM-ō-royds): Distended and swollen veins in the rectum and anus.

hemostasis (hē-MŌ-STĀ-sis): The process by which the body seals a ruptured blood vessel to prevent further blood loss. Biological process that results in stable equilibrium.

hemothrax (hē-mō-THŌR-aks): Blood in the chest cavity.

hepatitis (hep-ă-TĪT-īs): Inflammation of the liver.

hepatoma (hēp-ă-TŌ-mă): Tumor of the liver.

hepatomegaly (hep-ăt-ō-MEG-ă-lē): Enlarged liver.

herniorrhaphy (hěr-nē-OR-ă-fē): Suturing of a hernia.

hiatal: Location where the diaphragm has a small opening (hiatus) through which the esophagus passes before connecting.

hidradenitis (hi-dra-ěn-ĪT-īs): Inflammation of a sweat gland.

high-density lipoprotein (HDL) (hi DEN-sit-ē lip-ō-PRŌ-tēn): High-density lipoprotein, often referred to as 'good' cholesterol.

hilum (HĪ-lŭm): The hilum is a ridge of cartilage that separates the two main bronchi. A concave region where blood vessels, lymphatic vessels, and nerves also enter the lungs.

hirsutism (HŪR-sŭ-tĭ-zm): Excess hair all over the body.

histamine (HIS-tă-mēn): Vasoactive mediator in granules of mast cells and is the primary cause of allergies and anaphylactic shock. Involved in the inflammatory response and typically causes itching.

homeostasis (hō-mē-ō-STĀ-sĭs): Biological process that results in stable equilibrium.

hormonal replacement therapy (HRT): Replacement of hormones, estrogen, and progesterone, typically to treat symptoms associated with menopause.

hormone (HOR-mōn): Secretion of an endocrine organ that travels via the bloodstream or lymphatics to induce a response in target cells or tissues in another part of the body.

human immunodeficiency virus (HIV) (hu-man im-yŭ-nō-dē-FISH-ěn-sē VĪ-rŭs): A retrovirus that attacks the T-helper cells of the immune system. If HIV is not treated, it can lead to AIDS (acquired immunodeficiency syndrome).

human papillomavirus (HPV) (PAP-ĭ-LŌ-mă-VĪ-rŭs): A sexually transmitted disease with over 40 subtypes that cause diseases in humans ranging from common warts to cervical cancer.

humeral (HŪ-měr-ăl): Pertaining to the humerus.

hydrocele (HĪ-drō-sēl): fluid-filled sac around the testicle.

hydrocelectomy (hĭ-drō-sē-LĚK-tō-mē): Surgical removal of a fluid-filled sac around the testicle causing scrotal swelling (hydrocele).

hydrocephalus (hĭ-drō-SEF-ă-lŭs): An abnormal buildup of cerebrospinal fluid (CSF) in the ventricles of the brain.

hydronephrosis (hĭ-drō-něf-RŌ-sĭs): Abnormal condition of water in the kidney.

hydrosalpinx (hĭ-drō-SĀL-pĭnks): Water in the uterin/fallopian tube.

hydrostatic (hĭ-drō-STAT-ik): Relating to the equilibrium of liquids and the pressure exerted by liquid at rest.

hymen (HĪ-mēn): The fold of membrane found near the opening of the vagina.

hymenectomy (hĭ-mēn-ĚK-tō-mē): Excision of the hymen.

hymenotomy (hĭ-mē-NOT-ō-mē): Incision into the hymen.

hypercalcemia (hĭ-pěr-kal-SĚ-mē-ă): Excessive calcium in the blood.

hypercapnia (hī-pěr-KAP-nē-ă): Condition of excessive (greater than normal levels) carbon dioxide (in the blood).

hypercholesterolemia (hī-pěr-kō-lēs-těr-öl-Ē-mē-ă): Higher than normal levels of cholesterol in the blood.

hyperemesis (hī-pěr-EM-ě-sīs): Excessive vomiting during pregnancy.

hyperemesis grāvīda (hī-pěr-EM-ě-sīs GRĀV-ī-dă): Excessive vomiting during pregnancy.

hyperemesis gravidarum (hī-pěr-EM-ě-sīs GRĀV-ī-dŭm): Hyperemesis can occur with any pregnant women, even a woman who miscarries. Often these women may require hospitalization for fluid and electrolyte intake.

hyperesthesia (hī-pěr-es-THĒ-zh(ē)-ă): Excessive sensitivity to stimuli.

hyperglycemia (hī-pěr-glī-SĒ-mē-ă): Excessive sugar in the blood.

hyperkalemia (hī-pěr-kā-LĒ-mē-ă): Excessive potassium in the blood.

hyperkinesia (hī-pěr-kī-NĒ-zh(ē)-ă): Condition of excessive movement.

hyperlipidemia (hī-pěr-līp-ī-DĒ-mē-ă): Excessive fat in the blood.

hyperopia (hī-pěr-Ō-pē-ă): Farsightedness; near objects look blurred but distant objects are more clearly visible.

hyperpnea (hī-pěr-p-NĒ-ă): Forced breathing or breathing that is excessive.

hypersensitivities (hī-pěr-sĕn-sī-TĪV-ī-tēs): Reacting to something that would not normally evoke a reaction.

hypertension (HTN) (hī-pěr-TEN-shŏn): High blood pressure.

hyperthyroidism (hī-pěr-THĪ-royd-izm): State of excessive thyroid gland activity.

hypertrophy (hī-PĒR-trō-fē): Excessive development.

hypocalcemia (hī-pō-kal-SĒ-mē-ă): Deficient calcium in the blood.

hypocapnia (hī-pō-KAP-nē-ă): Condition of deficient (low levels) of carbon dioxide (in the blood).

hypodermic (hī-pō-DĒR-mīk): Pertaining to below the skin.

hypodermis (hī-pō-DĒR-mīs): Literally means below the dermis. The layer of skin below the dermis that is composed mainly of loose connective and fatty tissues.

hypoglycemia (hī-pō-glī-SĒ-mē-ă): Deficient sugar in the blood.

hypokalemia (hī-pō-kā-LĒ-mē-ă): Deficient potassium in the blood.

hyponatremia (hī-pō-nā-TRĒ-mē-ă): Deficient sodium in the blood.

hypopituitarism (hī-pō-pī-TŪ-īt-ă-rizm): State of deficient pituitary gland activity.

hypopnea (hī-pōp-NĒ-ă): Deficient breathing.

hypothalamus (hī-pō-THAL-ă-mŭs): Major region of the diencephalon that is responsible for coordinating autonomic and endocrine control of homeostasis.

hypothalamic: A region of the forebrain below the thalamus.

hypothermia (hī-pō-THĒR-mē-ă): Condition of (body) temperature that is below (normal).

hypothyroidism (hī-pō-THĪ-royd-izm): Underactive thyroid gland, insufficient production of thyroid hormones (T3 and T4).

hypovolemic (hī-pō-vō-LĒ-mēk): State of abnormally low extracellular fluid in the body.

hypoxemia (hip-ok-SĒ-mē-ă): Condition of deficient oxygen.

hypoxia (hī-POKS-ē-ă): Literally: 'lower than normal amount of oxygen to tissues'. Hypoxia means that a tissue is not getting enough oxygen to survive and cell death is likely.

hysterectomy (his-tě-REK-tō-mē): Surgical removal of the uterus.

hysteropexy (his-tě-RŌ-pěks-ē): Surgical fixation of the uterus.

hysterorrhexis (his-tě-rō-REK-sīs): Rupture of the uterus.

hysterosalpingo-oophorectomy (hist-ě-rō-sal-ping-gō-ō-ō-fō-REK-tō-mē): Excision of the uterus, uterine tubes, and ovaries.

hysterosalpingogram (HSG) (his-tě-rō-sal-PING-ō-gram): Radiographic image of the uterus and uterine tubes.

hysteroscope (HIS-tě-rō-skōp): Instrument used for visual examination of the uterus.

hysteroscopy (his-tě-ROS-kō-pē): Visual examination of the uterus.

## 26. I

ileocecal (il-ē-ō-SĒ-kāl): Pertaining to the ileum and cecum.

ileostomy (IL-ē-OS-tō-mē): Creation of an artificial opening in the ileum.

iliofemoral (il-ē-ō-FEM-ō-rāl): Pertaining to the ilium and femur.

immune (i-MŪN): Resistant to specific pathogens.

immune system (i-MŪN SIS-tēm): Series of barriers, cells, and soluble mediators that combine to response to infections of the body with pathogenic organisms.

immunity (im-Ū-nīt-ē): After an infection, memory cells remain in the body for a long time and can very quickly mount an immune response against the same pathogen if it tries to re-infect. This protects us from getting diseases from the same pathogen over again.

immunodeficiency (im-yŭ-nō-dě-FISH-ēn-sē): Deficient immune response caused by immune system dysfunction brought on by disease or immune suppressive drugs.

immunological memory (im-yŭ-NOL-ō-jē- kāl MEM-ō-rē): Ability of the adaptive immune response to mount a stronger and faster immune response upon re-exposure to a pathogen.

Immunologist (īm-ū-NŌL-ō-jīst): Specialist who studies and treats immune system disorders.

immunology (im-yŭ-NOL-ō-jē): Study of disorders of the immune system.

implantable cardioverter defibrillator (im-plan"tĀ-shŏn KĀR-dē-ō-vēr-tēr dē-FIB-rī-lāt-ŏr): An electronic implant that provides an automatic shock to convert a dangerous heart rhythm to a normal heart rhythm.

incise, incision (in-SĪZ, in-SIZH-ŏn): Surgical cut into or wound produced by a sharp instrument.

incision and drainage (in-SIZH-ŏn & DRĀN-āj): Surgical cut made to allow the free flow of fluids from a lesion, wound, or cavity.

incontinence (in-KONT-īn-ēns): Inability to control the bladder and/or bowels.

induction (in-DŪK-shŏn): The process of bringing on or starting labour. This may be done with a membrane sweep or through the use of IV oxytocin.

induration (ĪN-dū-rā-shun): A firm, raised reddened patch of skin.

infection (in-FEK-shŏn): Invasion by disease-causing organisms.

inferior (or caudal) (in-FĒR-ē-ŏr): Describes a position below or lower than another part of the body proper; near or toward the tail (in humans, the coccyx, or lowest part of the spinal column).

inferior vena cava (in-FĒR-ē-ŏr VĒ-nā KĀ-vā): One of the two largest veins in the body. It carries deoxygenated blood from the torso and legs back to the heart.

infertility (in-fēr-TIL-īt-ē): Inability to achieve pregnancy.

inflammation (in-flā-MĀ-shŏn): Basic innate immune response characterized by heat, redness, pain, and swelling.

influenza (flu) (in-floo-EN-ză): Highly contagious viral infection effecting the respiratory tract.

inguinal canal (ING-gwī-nāl kă-NAL): Opening in abdominal wall that connects the testes to the abdominal cavity.

initial segment (in-ĪSH-ăl SEG-měnt): First part of the axon as it emerges from the axon hillock, where the electrical signals known as action potentials are generated.

innate immune response (in-NĀT i-MŪN ri-SPONS): Rapid but relatively nonspecific immune response.

inspiration (in-spīr-Ā-shŭn): Inhalation or process of breathing air into the lungs.

integration (int-ě-GRĀ-shŏn): Nervous system function that combines sensory perceptions and higher cognitive functions (memories, learning, emotion, etc.) to produce a response.

interatrial septum (nt-ěr-RĀ-trē-ăl SEP-tŭm): The wall separating the right and left atria.

intercellular (in-těr-SĒL-ŭ-lăr): Between cells.

intercostal (int-ěr-KOS-tăl): Pertaining to between the ribs.

interferons (int-ěr-FĒR-on): Early induced proteins made in virally infected cells that cause nearby cells to make antiviral proteins.

interictal (in-těr-ĪK-tăl): Occurs between seizures or attacks.

interstitial (in-těr-STISH-ăl): Between cells of the tissues, often used interchangeably with 'intercellular'.

interstitial fluid (in-těr-STISH-ăl FLOO-ĭd): Fluid that has leaked out of blood capillaries into the tissue spaces.

interstitial space (in-těr-STISH-ăl spās): Spaces between individual cells in the tissues.

interventricular septum (int-ěr-ven-TRIK-yŭ-lăr SEP-tŭm): The wall of myocardium that separates the right and left ventricles.

intervertebral (in-těr-VĒRT-ě-brĕl): Pertaining to between the vertebrae.

intracellular (in-tră-SĒL-ŭ-lăr): Inside the cell membrane or within the cell.

intracerebral (in-tră-SER-ě-brăl): Pertaining to within the cerebrum.

intracranial (in-tră-KRĀ-nē-ăl): Pertaining to within the cranium.

intra dermal (in-tră-DĒR-măl): Pertaining to within the skin.

intramuscular (in-tră-MŪS-kyŭ-lăr): Pertaining to within the muscle.

intraocular (in-tră-OK-yŭ-lăr): Pertaining to within the eye.

intrapartum (in-tră-PART-ŭm): Within (during) labour and delivery.

intravenous (in-tră-VĒ-nŭs): Pertaining to within the vein.

in vitro fertilization (IVF) (in VĒ-trō fĕrt-ĭl-ĭ-ZĀ-shŏn): A process where the ova is fertilized outside the body and then implanted into the uterus.

iridectomy (ir-ĭ-DEK-tŏ-mĕ): Excision of (part of) the iris.

iridoplegia (ir-ī-dō-PLĒ-j(ē-)ă, īr): Paralysis of the iris.

iridotomy (īr-ī-DŌT-ō-mē): Incision into the iris.

iritis (ī-RĪT-īs): Inflammation of the iris.

ischemia (is-KĒ-mē-ă): Insufficient blood and oxygen to cells of an organ. These cells are starving for oxygen, but they are still alive.

ischemic (is-KĒ-mē-ă): Ischemia is a condition in which cells receive insufficient amounts of blood and oxygen.

ischemic stroke (is-KĒ-mē-ă strōk): Disruption of blood flow to the brain because blood cannot flow through blood vessels as a result of a blockage or narrowing of the vessel.

ischiofibular (is-kē-ō-FIB-yŭ-lăr): Pertaining to the ischium and fibula.

isocoria (ī-sō-KŌ-rē-ă): Condition of equal pupils.

## 27. J

jaundice (JON-dīs): Yellow-coloring of the mucous membrane and sclera.

jaundiced (JON-dīsd): Yellow-colored.



## 28. K

keloid (KĒ-loyd): Formation of a raised or hypertrophic scar.

keratin (KER-ăt-ĭn): Intracellular fibrous protein that gives hair, nails, and skin their hardness and water-resistant properties.

keratinocyte (kĕ-RĀT-ĭ-nō-sīt): Cell that manufactures and stores the protein keratin.

keratitis (ker-ă-TĪT-ĭs): Inflammation of the cornea.

keratogenic (kĕ-ă-TŌJ-ĕ-nŭk): Agent that causes growth of horny tissue.

keratomalacia (kĕr-ă-tō-mă-LĀ-shĕ-ă): Softening of the cornea.

keratometer (kĕr-ă-TŌM-ĕ-ter): Instrument used to measure (the curvature) of the eye.

keratoplasty (KER-ăt-ō-plas-tē): Surgical repair of the cornea.

keratosis (ker-ă-TŌ-sĭs): Abnormal condition of growth of horny tissue.

kinesthesia (kin-ĕs-THĒ-zh(ĕ-)ă): Body movement.

kyphosis (kĭ-FŌ-sĭs): Abnormal condition of convexity of the spine.

## 29. L

labia (LĀ-bē-ă): Lips of the mouth.

labyrinthectomy (lab-ĩ-rin-THEK-tō-mē): Excision of the inner ear (labyrinth).

labyrinthitis (lab-ĩ-rin-THĪT-īs): Inflammation of the inner ear (labyrinth).

laceration (las-ě-RĀ-shŏn): Torn, ragged-edged wound.

lacrimal (LAK-rĩ-măl): Pertaining to the tear duct.

lactation (lak-TĀ-shŏn): Secretion of milk.

lacteals (LAK-tē-ăls): The lymphatic vessels of the small intestine which absorb digested fats.

lactic (LAK-tik): Pertaining to milk.

lactogenic (lak-tō-JĒN-ĭk): Producing milk.

lactorrhea (lak-tō-RĒ-ă): Discharge of milk.

lamina propria: Connective tissue of the mucous membrane which helps support epithelial layer.

laminectomy (lăm-ĩ-NĒK-tō-mē): Excision of the lamina.

laparoscope (LAP-ă-rŏ-skŏp): Instrument used to view the abdominal cavity.

laparoscopy (lap-ă-ROS-kŏ-pē): Process of viewing internal organs in the abdomen.

laparotomy (lap-ă-ROT-ŏ-mē): Incision into the abdominal cavity.

laryngeal (lar-ĩn-JĒ-ăl): Pertaining to the larynx.

laryngitis (lar-ĩn-JĪT-īs): Inflammation of the larynx.

laryngopharynx (lăr-ĩn-gŏ-FĀR-ĭnks): The laryngopharynx borders the oropharynx, trachea, and esophagus.

laryngoplasty (lăr-ĪN-gŏ-plăs-tē): Surgical repair of the larynx.

laryngoscope (lă-RING-gŏ-skŏp): Instrument used for visual examination of the larynx.

laryngoscopy (lăr-ĩn-GŎS-kŏ-pē): Process of viewing the larynx.

laryngospasm (lăr-ĪN-gŏ-spăzm): Spasmodic contraction of the larynx.

laryngostomy (lăr-ĩn-GŎS-tō-mē): Creation of an artificial opening in to the larynx.

laryngotracheobronchitis (LTB) (lă-rĭng-gŏ-tră-kē-ŏ-brŏng-KĪ-tīs): Inflammation of the larynx, trachea, and bronchi.

laryngotracheotomy (lăr-ĩn-gŏ-tră-kē-ŎT-ŏ-mē): Incision into the larynx and trachea.

larynx (LAR-ingks): The larynx is a cartilaginous structure inferior to the laryngopharynx that connects the pharynx to the trachea and helps regulate the volume of air that enters and leaves the lungs.

laser surgery (LĀ-zěr SŪRJ-ě-rē): A surgical procedure using a powerful beam of light to cut or burn tissue.

lateral (LĀT-ēr- āl): Describes the side or direction toward the side of the body.

leioderma (lī-ō-DĒR-mē-ă): Condition of smooth skin.

lesion (lĒ-zhǒn): Visible change in tissue resulting from injury or disease.

lethargy (LĒTH-ār-jē): Periods of weakness.

leukemia (loo-KĒ-mē-ă): A cancer involving an abundance of leukocytes. It may involve only one specific type of leukocyte from either the myeloid line (myelocytic leukemia) or the lymphoid line (lymphocytic leukemia). In chronic leukemia, mature leukocytes accumulate and fail to die. In acute leukemia, there is an overproduction of young, immature leukocytes. In both conditions the cells do not function properly.

leukocoria (loo-kō-KÖR-ē-ă): Condition of white pupil.

leukocytes (loo-kō-SĪT-īs): White blood cells.

leukocytopenia (loo-kō-sī-tō-PĒ-nē-ă): Abnormal reduction of white (blood) cells.

leukoderma (loo-kō-PLĀ-kē-ă): White patches caused by depigmentation.

leukoplakia (loo-kō-DĒR-mă): White, thickened patches on mucus membrane tissue of the tongue or cheek.

leukorrhea (loo-kō-RĒ-ă): White discharge.

Leydig cells (LĪ-dig sels): Cells between the seminiferous tubules of the testes that produce testosterone; a type of interstitial cell.

lingual (LĪNG-gwǎl): Pertaining to the tongue.

lingual tonsils (LĪNG-gwǎl TON-sĭls): A collection of lymphatic tissue located in the lamina propria of the root of the tongue.

literally (LIT-ē-rǎl-li): Follows the rules exactly.

lithotripsy (LITH-ō-trip-sē): Surgical crushing of stone(s).

lobar pneumonia (LŌ-bǎr noo-MŌN-yă): Disease state of the lung pertaining to the lobe(s).

lobectomy (lō-BĒK-tō-mē): Excision of the lobe(s).

lochia (LŌ-kē-ă): Vaginal discharge after birth.

lordosis (lor-DŌ-sĭs): Abnormal condition of increased concavity of the spine (bent forward).

low-density lipoprotein (lō DEN-sit-ē lip-ō-PRŌ-tēn): Low-density lipoprotein, often referred to as 'bad' cholesterol (LDL).

lumbago (lŭm-BĀ-gō): Lower back pain.

lumbar (LŬM-bǎr): Pertaining to the lumbar region of the spine.

lumbar puncture (LŬM-bǎr PŬNGK-chŭr): Procedure used to withdraw CSF from the lower lumbar region of the vertebral column that avoids the risk of damaging CNS tissue because the spinal cord ends at the upper lumbar vertebrae.

lumbocostal (lŭm-bō-KOS-tǎl): Pertaining to the lumbar region of the spine and ribs.

lumbosacral (lŭm-bō-SĀ-krāl): Pertaining to the lumbar region of the spine and sacrum.

lupus (LOO-pŭs): An autoimmune disease in which the body mounts an immune response against its own tissues, causing chronic inflammation and tissue damage.

lymph (limf): Fluid contained within the lymphatic system.

lymph node (limf nōd): One of the bean-shaped organs found associated with the lymphatic vessels.

lymphadenitis (lim-fad-ĕn-ĪT-īs): Inflammation of lymph nodes.

lymphadenopathy (lim-fad-ĕ-NOP-ă-thē): Disease of lymph nodes.

lymphatic capillaries (lim-FAT-ik KAP-ĭ-ler-ē): Smallest of the lymphatic vessels and the origin of lymph flow.

lymphatic system (lim-FAT-ik SIS-tēm): Network of lymphatic vessels, lymph nodes, and ducts that carries lymph from the tissues and back to the bloodstream.

lymphatic trunks (lim-FAT-ik trŭnk): Large lymphatics that collect lymph from smaller lymphatic vessels and empties into the blood via lymphatic ducts.

lymphocytes (LIM-fō-sīt): White blood cells characterized by a large nucleus and small rim of cytoplasm.

lymphoid (LIM-foyd): Resembling lymph or lymphatic tissues.

lymphoid nodules (LIM-foyd NOJ-ool): Unencapsulated patches of lymphoid tissue found throughout the body.

lymphoma (lim-FŌ-mă): A form of cancer in which masses of malignant T and/or B lymphocytes collect in lymph nodes, the spleen, the liver, and other tissues. These leukocytes do not function properly, and the patient is vulnerable to infection.

## 30. M

macrophages (MAK-rō-fāj): A type of leukocyte (usually a monocyte) that has the ability to ingest and destroy other cells or pathogens.

macule (MAK-ūl): Flat, colored spot on the skin.

magnetic resonance imaging (MRI) (MAG-ně-tik RĚZ-ō-nāns IM-ă-jing): Radio frequency waves and a strong magnetic field provide clear and detailed pictures of internal organs and tissues.

mainstream smoke (MĀN-strēm smōk): Smoke inhaled by the smoker.

Major Histocompatibility Complex (hīs-tō-kōm-păt-ī-BĪL-ī-tē KOM-pleks): Major Histocompatibility Complex molecules, also called Human Leukocyte Antigen (HLA) are protein structures found on the outside of cells that help the immune system recognize non-self antigens.

malabsorption (mal-ăb-SORP-shōn): A disorder that occurs when people are unable to absorb nutrients from their diets.

maldigestion (măl-dī-JĚS-chūn): Poor breakdown of food.

malignant (mă-LIG-nănt): Cancerous.

mammogram (MĀM-ō-grām): Radiographic image of the breast.

mammography (ma-MOG-ră-fē): Radiographic imaging of the breast.

mammoplasty (MAM-ă-plas-tē): Surgical repair of the breast particularly after a mastectomy.

mast cell: Cell found in the skin and the lining of body cells that contains cytoplasmic granules with vasoactive mediators such as histamine.

mastalgia (mas-TAL-jă): Pain in the breast.

mastectomy (mas-TEK-tō-mē): Excision of breast(s) and or breast tissue.

mastitis (mas-TĪT-īs): Inflammation of the breast.

mastoidectomy (măs-tōy-d-ĚK-tō-mē): Excision of the mastoid bone.

mastoiditis (mas-toyd-ĪT-īs): Inflammation of the mastoid bone.

mastoidotomy (măs-toyd-ŌT-ō-mē): Incision into the mastoid bone.

mastopexy (MAS-tō-pek-sē): Surgical fixation of the breast.

maxillectomy (măks-īl-EK-tō-mē): Excision of the maxilla.

maxillitis (măks-īl-Ī-tīs): Inflammation of the maxilla.

meatal (mē-ĀT-ăl): Pertaining to the meatus.

meatotomy (mē-ă-TOT-ō-mē): Incision into the meatus.

mechanoreceptors (mek-ă-nō-rě-SEP-tōr): A sensory neuron that responds to mechanical pressure.

meconium (mē-KŌ-nē-ŭm): First stool of the newborn.

meconium staining (mē-KŌ-nē-ŭm STĀN-ĭng): When the fetus defecates while in utero; the first defecation is called meconium, it is black and sticky. If the infant inhales the meconium upon delivery or through the birth canal, the meconium can be aspirated into the lungs and stick to the lung tissue. The newborn will have problems breathing and go into distress. The newborn's umbilical cord will be stained a brownish color.

medial (MĒD-ē-ăl): Describes the middle or direction toward the middle of the body.

medulla oblongata (mě-DŪL-ă ob-long-GOT-ă): A part of the brain stem responsible for control of heart rate and breathing. The continuation of the spinal cord within the skull, forming the lowest part of the brainstem, contains the control centers for heart and lung nerve function.

Meissner corpuscle (MĪS-nĕr KOR-pŭs-ĕl): Tactile corpuscle that responds to light and touch, touch receptor.

melanocyte (MĒL-ăn-ō-sīt): Specialized cells that produce melanin which is a dark pigment responsible for colouration of skin and hair.

melanoma (mel-ă-NŌ-mă): Cancer characterized by uncontrolled growth of melanocytes.

melena (mě-LĒ-nă): Black tarry stool that contains blood from the GI tract.

memory t cells (MEM-ŏ-rĕ t sels): Long-lived immune cell reserved for future exposure to an pathogen.

menarche (mĕn-ĂR-kĕ): Beginning of menstruation.

meninges (mě-NIN-jĕz): Protective outer coverings of the CNS composed of connective tissue.

meningioma (mĕn-in-jĕ-Ō-mă): Tumor of the meninges.

meningitis (men-ĕn-JĪT-is): Inflammation of the meninges.

meningocele (mĕn-ĪN-gō-sĕl): Protrusion of the meninges.

meningomyelocele (mě-nĭng-gō-MĪ-ĕ-lō-sĕl): Protrusion of the meninges and spinal cord.

meniscectomy (mĕn-ĭ-SĔK-tō-mĕ): Excision of the meniscus.

meniscitis (men-ĭ-SĪT-is): Inflammation of the meniscus.

menometrorrhagia (mĕn-ŏ-mĕt-rō-RĀ-jĕ-ă): Excessive bleeding from the uterus at menstruation.

menopause (MEN-ŏ-poz): Cessation of menstruation.

menorrhagia (mĕn-ŏ-RĀ-jĕ-ă): Excessive bleeding at menstruation.

mental (men-TAL): Pertaining to the brain.

metastasize (mě-TĀS-tă-sĭz): Production of cells that can mobilize and establish tumors in other organs of the body.

metrorrhagia (mē-trō-RĀ-jă): Excessive bleeding from the uterus.

microcephalus (mī-krō-SĔF-ă-lŭs): Small head.

microglia (mī-KROG-lĕ-ă): Glial cell type in the CNS that serves as the resident component of the immune system.

micturate (MĪK-tŭ-răt): To pass urine.

midbrain (MID-brān): A portion of the brainstem, positioned above the pons, also called mesencephalon, assist in motor reflexes associated with visual and auditory stimuli.

midwife (MĪD-wīf): Individual who practices midwifery.

midwifery (mīd-WĪF-ēr-ē): Practice of assisting in childbirth.

mitochondria (mīt-ō-KŌN-drē-ōn): An organelle found in large numbers in most cells.

mitral valve (MĪ-trāl valv): Also known as the bicuspid valve.

modern-day language term: Terms from the English language.

molecule (MOL-ē-kūl): Chemical building block of all body structures.

monocyte (MON-ō-sīt): Precursor to macrophages and dendritic cells seen in the blood.

mononeuropathy (mon-ō-noo-ROP-ā-thē): Disease affecting a single nerve.

monoparesis (mon-ō-pā-RĒ-sīs): Slight paralysis of one (limb).

monoplegia (mōn-ō-PLĒ-jē-ā): Paralysis of one (limb).

morcellation (mor-sē-LĀ-shōn): Cutting or grinding solid tissue into smaller pieces for removal.

motor nerves: Peripheral, efferent, myelinated nerve tissue that stimulates muscle contraction.

MRI ultrasound fusion biopsy (FŪ-zhōn BĪ-op-sē): Combination of magnetic resonance imaging with transrectal ultrasound (TRUS) to obtain a tissue from a prostate lesion. The combined MRI-TRUS image is used to direct the biopsy needle into the area of the prostate that looked suspicious on MRI.

muroid (MŪ-koyd): Resembling mucus.

mucosa-associated lymphoid tissue (malt) (mū-KŌ-sā ā-sō-s(h)ē-ĀTE LIM-foyd TISH-oo): Lymphoid nodule associated with the mucosa.

mucosal (mū-KŌ-sāl): Mucous membranes line body cavities that open to the outside world, including the respiratory tract, gastrointestinal tract, urinary tract and reproductive tracts.

mucous (MŪ-kūs): Pertaining to mucus.

mucous membrane (MŪ-kūs MEM-brān): Composite of connective and epithelial tissues which lines the body cavities and hollow passageways that open to the external environment.

mucus (MŪ-kūs): Slimy liquid secreted by mucous membranes.

multigravida (mŭl-tī-GRĀV-ī-dā): Many pregnancies A woman who has been pregnant two or more times regardless of outcome.

multipara (mŭl-TĪP-ā-rā): Many births.

multiple myeloma (MŬL-tī-pl mī-ē-LŌ-mā): Tumors of the bone marrow.

multipolar (mŭl-tī-PŌL-ār): Shape of a neuron that has multiple processes—the axon and two or more dendrites.

myalgia (mī-AL-j(ē)-ā): Muscle pain.

myasthenia (mī-ās-THĒ-nē-ă): Weakness of muscles, muscle weakness.

myasthenia gravis (mī-ās-THĒ-nē-ă grāv-īs): Grave or serious muscle weakness.

myelin (MĪ-ě-lĭn): Lipid-rich insulating substance surrounding the axons of many neurons, allowing for faster transmission of electrical signals.

myelin sheath (MĪ-ě-lĭn shēth): Lipid-rich layer of insulation that surrounds an axon, formed by oligodendrocytes in the CNS and Schwann cells in the PNS; facilitates the transmission of electrical signals.

myeloma (mī-ě-LŌ-mă): Tumor in the spinal cord.

myelomalacia (mī-ě-lō-mă-LĀ-shē-ă): Softening of the spinal cord.

myelopoiesis (mī-ě-lō-poy-Ē-sīs): Formation of bone marrow.

myocardial infarction (MI) (mī-ō-kar'dē-ăl in-FARK-shŏn): heart attack, caused by lack of blood flow and oxygen to the heart.

myocarditis (mī-ō-kar-DĪT-īs): Inflammation of the muscle of the heart.

myometritis (mī-ō-mē-TRĪ-tīs): Inflammation of the uterine muscle.

myopia (mī-Ō-pē-ă): Nearsightedness; near objects are clear and seen but far objects are not.

myorrhaphy (mī-OR-ă-fē): Suturing of a muscle.

myringitis (mĭr-ĭn-JĪ-tīs): Inflammation of the tympanic membrane.

myringoplasty (mĭr-ĬN-gō-plăst-ē): Surgical repair of the tympanic membrane.

myringotomy (mĭr-ĭn-GŎT-ō-mē): Incision into the tympanic membrane.



### 31. N

naïve lymphocyte (nī-ĒV LIM-fō-sīts): Mature B or T cell that has not yet encountered antigen for the first time.

nasal cavity (NĀ-zāl KAV-īt-ē): The inside of your nose.

nasogastric (nā-zō-GĀS-trīk): Pertaining to the nose and stomach.

nasolacrimal (nā-zō-LAK-rī-māl): Pertaining to the nose and the tear duct.

nasopharyngeal (nā-zō-FAR-in-JĒ-āl): Pertaining to the nose and pharynx.

nasopharyngitis (nā-zō-fār-īn-JĪ-tīs): Inflammation of the nose and pharynx.

nasopharynx (nā-zō-FAR-ingks): The nasopharynx serves as an airway and is continuous with the nasal cavity.

natal (NĀT-āl): Pertaining to born.

natural killer cell (nk): Cytotoxic lymphocyte of innate immune response.

nausea (NAW-sē-ă, naw-zē-ă): Urge to vomit.

nebulizer (NEB-yŭ-lī-zēr): Device that creates a mist for giving respiratory treatment or medication.

necrosis (ně-KRŌ-sīs): Condition of death.

neonatal (nē-ō-NĀT-āl): Pertaining to the newborn. For example neonatal record, neonatal unit.

neonate (NĒ-ō-nāt): New born (infant from birth to four weeks of age).

neonatologist (nē-ō-nā-TŌL-ō-jīst): Physician who studies and treats disorders of the new born.

neonatology (nē-ō-nā-TŌL-ō-jē): Study of the newborn.

nephrectomy (ně-FREK-tō-mē): Excision of the kidney.

nephritis (ně-FRĪT-īs): Inflammation of the kidney.

nephrography (ně-FRŌG-ră-fē): Radiographic imaging of the kidney.

nephrolithiasis (nēf-rō-li-THĪ-ă-sīs): Condition of stone(s) in the kidney.

nephrolithotripsy (něf-rō-LITH-ō-trip-sē): Surgical crushing of stone(s) in the kidney.

nephrolitotomy (něf-rō-lith-ŌT-ō-mē): Incision into the kidney to remove stone(s).

nephrologist (ně-FRŌ-lō-jīst): Specialist who studies and treats disease and disorders of the kidney.

nephrology (ně-FRŌL-ă-jē): Study of the kidney.

nephrolysis (ně-fröl-ī-sīs): Separating the kidney (from body structures).

nephroma (ně-FRŌ-mă): Tumor of kidney.

nephromegaly (něf-rō-MĒG-ă-lē): Enlarged kidney.

nephropexy (NĚF-rō-pěks-ě): Surgical fixation of the kidney.

nephroscopy (NĚF-ră-skō-pē): Process of viewing the kidney.

nephrosonography (ně-FRŌ-sō-NOG-ră-fē): Process of recording the kidney using sound.

nephrostomy (ně-FRŌS-tō-mē): Creation of an artificial opening into the kidney.

nerve (něrv): Cord-like bundle of axons located in the peripheral nervous system that transmits sensory input and response output to and from the central nervous system.

neurectomy (nū-RĚK-tō-mē): Excision of nerves.

neuritis (noo-RĪ-tis): Inflammation of the nerves.

neuroarthropathy (noo-rō-ar-THROP-ă-thē, nū): Disease of the nerves and joints.

neuroglia (noo-ROG-lē-ă): Supportive tissue of the nervous system, including the network of branched cells in the central nervous system (astrocytes, microglia, and oligodendrocytes) and the supporting cells of the peripheral nervous system (Schwann cells and satellite cells), also called glia.

neuroid (noo-rōyd): Resembling a nerve.

neurologist (nū-RŌL-ō-jist): Specialist who studies and treats the nervous system.

neurology (noo-ROL-ō-jē): Study of nerves.

neurolysis (noo-ro-LĪ-sis): Dissolution of nerve (for pain management).

neuroma (noor-Ō-mă): Tumor made up of nerve (cells).

neuron (NOOR-on): Neural tissue cell that is primarily responsible for generating and propagating electrical signals into, within, and out of the nervous system.

neuroplasty (NŪ-rō-plăs-tē): Surgical repair of a nerve.

neuropathy (noo-ROP-ă-thē): Disease of (peripheral) nerves.

neurorrhaphy (nū-ROR-ă-fē): Suturing of a nerve.

neurosensory (nū-rō-SĚN-sō-rē): Relating to afferent nerves.

neurotomy (nū-RŌT-ō-mē): Incision into a nerve.

neurotransmitter (noor-ō-trans-MIT-ěr): Chemical that is released from a nerve cell, transmits an impulse from a nerve cell to another nerve, muscle, organ, or other tissue.

neutrophil (nū-trō-FĪL-ik): Phagocytic white blood cell recruited from the bloodstream to the site of infection via the bloodstream.

nevus (NĚ-vūs): A pigmented skin blemish.

nociceptors (nō-sē-SEP-tōrs): Sensory neurons that respond to pain.

nocturia (nők-TŪ-rē-ă): Night urination.

node of Ranvier (nōd of ron-vē-Ā): Gap between two myelinated regions of an axon, allowing for strengthening of the electrical signal as it propagates down the axon.

nodule (NOJ-ool): A small node-like structure.

non-stress test (nūn stres test): Test conducted on the pregnant woman to assess the fetal heart rate (FHR).

norepinephrine (nor-ep-ī-NEF-rīn): A natural chemical in the body that acts as both a stress hormone and neurotransmitter (a substance that sends signals between nerve cells). It's released into the blood as a stress hormone when the brain perceives stress.

nosocomial infection (nos-ō-KŌ-mē-āl in-FEK-shōn): Infection acquired in hospital.

nucleus (NOO-klē-ūs): In the nervous system, a localized collection of neuron cell bodies that are functionally related; a “center” of neural function.

nulligravida (nūl-ī-GRĀV-ī-dă): A woman who has never been pregnant.

nullipara (nūl-ĪP-ă-ră): No pregnancies a woman who has never been pregnant.

## 32. O

obesity (ō-BĒ-sīt-ē): Abnormal increase in the proportion of fat cells resulting in excess body weight for height.

obstetrician (ob-stĕ-TRISH-ăn): The person who specializes in the study of obstetrics and gynecology and are referred to as OB/GYN Obstetrics and Gynecology.

Obstetrics (ōb-STE-triks): Medical specialty dealing with pregnancy, childbirth, and puerperium.

occipital lobe (ok-SIP-īt-ăl lōb): Region of the cerebral cortex directly beneath the occipital bone of the cranium.

occlude (ō-KLOOD): Block or close tightly.

oculomycosis (ōk-ū-lō-mī-KŌ-sīs): Abnormal condition of the eye caused by a fungus.

olfaction (ōl-FĀK-shŭn): Special sense responsible for smell, which has a unique, direct connection to the cerebrum.

oligodendrocyte (ol-ī-gō-DEN-drō-sīt): Glial cell type in the CNS that provides the myelin insulation for axons in tracts.

oligohydramnios (ōl-īg-ō-hī-DRĀM-nē-ōs): A condition where there is minimal amniotic fluid within the placental sac. Too little fluid can restrict the fetus from movement and growth.

oligomenorrhea (ōl-ī-gō-mĕn-ō-RĒ-ă): Infrequent or irregular periods.

oligoovulation (ol-i-gō-ov-yŭ-LĀ-shŏn): Infrequent ovulation.

oligospermia (ōl-ī-gō-SPĒR-mĕ-ă): Condition of scanty sperm.

oliguria (ōl-īg-Ū-rĕ-ă): Scanty urine (output).

omentum (ō-MENT-ŭm): Fatty tissue that stretches over the abdomen, plays a role in immune response and the growth of certain cancers.

omphalitis (ōm-fāl-Ī-tīs): Inflammation of the umbilicus.

omphalocele (ōm-FĀL-ō-sĕl): Herniation of the umbilicus.

onychocryptosis (ōn-ī-kō-krip-TŌ-sis): Abnormal condition of a hidden nail.

onychomalacia (ōn-ī-kō-mă-LĀ-shă): Softening of the nails.

onychomycosis (on-i-kō-mī-KŌ-sīs): Abnormal condition of a fungus in the nails.

onychophagia (ōn-ī-KŌF-ă-jĕ): Eating the nails (nail biting).

oocyte (Ō-ō-sīt): Female gamete.

oophorectomy (ō-ō-fō-REK-tō-mĕ): Surgical removal of the fallopian/uterine tubes.

oophoritis (ō-ōf-ō-RĪ-tīs): Inflammation of the ovary.

ophthalmalgia (ōf-thăl-MĀL-jĕ-ă): Pain in the eye.

ophthalmia neonatorum (of-THAL-mĕ-ă nē-ō-NĀ-tōr-ăm): Conjunctivitis in newborns (severe).

ophthalmic (of-THAL-mik): Pertaining to the eye.

ophthalmologist (öf-thäl-MÖL-ō-jīst): Specialist of the eye.

ophthalmology (Ophth) (öf-thäl-MÖL-ō-jē): Study of the eye.

ophthalmopathy (öf-thäl-MÖP-ä-thē): Disease of the eye.

ophthalmoplegia (of-thal-mō-PLĒ-j(ē-)ä): Paralysis of the eye.

ophthalmoscope (of-THAL-mō-skōp): Instrument used to view the eye.

ophthalmoscopy (of-thal-MOS-kō-pē): Process of viewing the eye.

opsonization (öp-să-nī-ZĀ-shŭn): An antibody or an antimicrobial protein binds to a pathogen, thereby marking it as a target for phagocytes.

optic (OP-tik): Pertaining to vision.

Optician (öp-TĪSH-ăn): Specialist who fills prescriptions for lenses but cannot prescribe.

Optometrist (öp-TÖM-ě-trīst): Specialist who diagnoses, treats and manages diseases and disorders of the eye (Doctor of Optometry).

optometry (op-TOM-ě-trē): Measuring vision.

oral (ÖR-äl): Pertaining to the mouth.

orchialgia (or-kē-ĀL-jē-ä): Pain in the testis.

orchiditis (or-kī-DĪ-tīs): Inflammation of the testis.

orchiectomy (or-kē-EK-tō-mē): Excision of the testis.

orchiepididymitis (or-kē-ēp-ī-dīd-ī-MĪ-tīs): Inflammation of the testis and epididymis.

orchiopexy (or-kē-ō-PĒK-sē): Surgical fixation of the testicle.

orchioplasty (OR-kē-ō-plās-tē): Surgical repair of the testis.

orchiotomy (or-kē-ÖT-ō-mē): Incision into the testis.

orchitis (or-KĪ-tīs): Inflammation of the testis.

organ (OR-găn): Anatomically distinct structure of the body composed of two or more tissue types.

organ system (OR-găn SIS-tēm): Group of organs that work together to perform major functions or meet the physiological needs of the body.

organelle (OR-gă-nel): Tiny functioning units inside of a cell.

organism (OR-găn-izm): Living being that has a cellular structure and can independently perform all physiological functions necessary for life.

orgasm (OR-gazm): A climax of sexual stimulation.

oropharynx (or-ō-FAR-ingks): The oropharynx is a passageway for both air and food and borders the nasopharynx and the oral cavity.

orthopnea (or-THÖP-nē-ă): Breathing is easier in a straight position.

osmosis (oz-MŌ-sis): A process by which molecules of a solvent tend to pass through a membrane from a less concentrated solution into a more concentrated one.

ostectomy (ös-TĒK-tō-mē): Excision of bone.

osteoarthritis (ă-stē-ō-ăr-thrī-təs): Inflammation of bone and joint.

osteoblast (OS-tē-ō-blast): Developing bone cell.

osteochondritis (os-tē-ō-kon-DRĪT-is): Inflammation of bone and cartilage.

osteoclasia (ös-tē-ō-KLĀ-sis): Surgical breaking of a bone.

osteocyte (OS-tē-ō-sīt): Bone cell.

osteomalacia (os-tē-ō-mă-LĀ-sh-ē-ă): Softening of the bones.

osteomyelitis (os-tē-ō-mī-ě-LĪT-is): Inflammation of bone and bone marrow.

osteonecrosis (os-tē-ō-ně-KRŌ-sis): Abnormal condition of bone death (lack of blood supply).

osteopenia (os-tē-ō-PĒ-nē-ă): Abnormal reduction of bone mass.

osteopetrosis (ös-tē-ō-pě-TRŌ-sis): Abnormal condition of stone-like bones.

osteosarcoma (ös-tē-ō-săr-KŌ-mă): Malignant tumor of bone.

otalgia (ō-TĀL-jē-ă): Pain in the ear.

otologist (ō-TŌL-ō-jīst): Specialist who studies and treats disorders and diseases of the ear.

otology (ō-TŌL-ō-jē): Study of the ear.

otomastoiditis (ō-tō-mas-toyd-ĪT-is): Inflammation of the ear and mastoid bone.

otomycosis (ō-tō-mī-KŌ-sis): Abnormal condition of fungus in the ear.

otopyorrhea (ō-tō-pī-ō-RĒ-ă): Discharge of pus from the ear.

otorhinolaryngologist (ō-tō-RĪ-nō-lăr-ĭn-GŎL-ō-jīst): Specialist or physician who studies and treats disease and disorder of the ears, nose and throat.

otorrhea (ō-tō-RĒ-ă): Discharge from the ear.

otosclerosis (ō-tō-sklē-RŌ-sis): Hardening of the ear.

otoscope (Ō-tō-skōp): Instrument used to view the ear.

otoscopy (ō-TŌS-kō-pē): Process of viewing the ear.

ovarian cancer (ō-VAR-ē-ăn KAN-sēr): Malignant tumor of the ovary.

ovaries (Ō-vă-rēs): Two almond shaped organs (female gonads) located at the entrance to the fallopian tubes; responsible for storing of egg cells (ova) and production of estrogen and progesterone hormones.

ovulation (ov-yŭ-LĀ-shŏn): Release of ovum from a mature graafian follicle.

ovum (plural: ova) (Ō-vŭm): Female egg cells.

oximeter (ok-SIM-ět-ěr): Instrument used to measure oxygen.

oxytocia (ok-si-TŌ-sia): A rapid birth.

## 33. P

pacemaker (PĀS-māk-ēr): An electronic implant that initiates a heart beat.

pachyderma (pak-ē-DĒR-mă): Thickening of the skin.

Pacinian corpuscle (pă-SIN-ē-ăn KOR-pūs-ěl): Lamellated corpuscle that responds to vibration.

palatine tonsils (PAL-ă-tīn TON-sīls): A pair of soft tissue masses located at the rear of the throat (pharynx).

palatitis (pal-ă-TĪT-īs): Inflammation of the palate.

palatoplasty (PĀL-ăt-ō-plās-tē): Surgical repair of the palate.

pallor (PĀL-or): Paleness.

palpate (PAL-pāt): Physical examination technique: The examiner feels for texture, size, consistency and location of body parts with hands.

palpitations (pāl-pī-Tă-shŭn): A feeling in the chest that may be caused by an irregular heart rhythm.

pancreatic (pan-krē-AT-ik): Pertaining to the pancreas.

pancreatitis (pan-krē-a-TĪT-īs): Inflammation of the pancreas.

pancytopenia (pan-sīt-ō-PĒ-nē-ă): Abnormal reduction of (all) blood cells.

panhypopituitarism (pan-hī-pō-pī-TOO-īt-ă-rizm, -TŪ): State of total deficient pituitary gland activity.

panplegia (păn-PLĒ-jē-ă): Total paralysis.

papanicolaou smear (păp-ă-NĒ-kă-low smēr): PAP test A smear method for examining cells, that is used to detect cancers of the cervix.

para (PĀR-ă): A woman who has given birth to an offspring after 20 weeks, live or stillborn.

paracrine (par-ă-krin): Chemical signal that elicits a response in neighboring cells; also called paracrine factor.

paraplegia (par-ă-PLĒ-j(ē-)ă): Paralysis that affects both legs and lower part of the body.

parathyroidectomy (păr-ă-thī-royd-ĒK-tō-mē): Excision of the parathyroid glands.

parathyroidoma (păr-ă-thī-royd-ō-MĀ): Tumor of the parathyroid glands.

paresis (pă-RĒ-sīs): Partial paralysis wherein there is still some control of the muscles.

paresthesia (par-es-THĒ-zh(ē-)ă): Abnormal sensation in the extremities.

parietal lobe (pă-RĪ-ēt-ăl lōb): Region of the cerebral cortex directly beneath the parietal bone of the cranium.

paronychia (păr-ō-NĪK-ē-ă): Diseased state around the nail.

parturition (păr-tū-RĪSH-ŭn): Act of giving birth.



passive immunity (PĀS-iv im-Ū-nīt-ē): Transfer of immunity to a pathogen to an individual that lacks immunity to this pathogen usually by the injection of antibodies.

patellectomy (pāt-ē-LĒK-tō-mē): Excision of the knee cap.

pathogens (path-Ō-jēns): Disease-causing agents.

pelvic (PEL-vik): Pertaining to pelvis, pelvic bone.

pelvic inflammatory disease (PID): Inflammation of some or all of the female pelvic organs.

pelvic sonography (PEL-vik sō-NOG-ră-fē): Process of recording sound pertaining to the pelvis.

pelvisacral (PEL-vīs-SĀ-krāl): Pertaining to the pelvis and sacrum.

pelviscopic (pēl-VĪS-kū-pīk): Pertaining to visual examination of the pelvic cavity.

pelviscopy (pēl-VĪS-kū-pē): Visual examination of the pelvic cavity.

penis (PĒ-nēz): Male organ of copulation.

percutaneous (pěr-kū-TĀ-nē-ūs): Pertaining to through the skin.

perfusion (pěr-FŪ-zhǒn): The delivery of blood to an area/tissue/organ.

pericardial fluid (per-ī-KAR-dē-āk FLOO-īd): Pericardial fluid is a serous fluid which allow the 2 layers of serous pericardium to slide smoothly against each other as the heart beats.

pericardiocentesis (per-i-kard-ē-ō-sen-TĒ-sīs): Surgical puncture to aspirate fluid from the (sac) surrounding the heart.

pericarditis (per-ī-kar-DĪT-īs): Inflammation of the (sac) surrounding the heart.

pericardium (per-ī-KARD-ē-ūm): Serous membrane surrounding the heart in the pericardial cavity and reduces friction between the heart and the wall of the pericardium.

perimetritis (per-ī-mē-TRĪT-īs): Inflammation surrounding the uterus.

perimetrium (per-i-MĒ-trē-ūm): The most superficial and serous layer of the uterus.

perineorrhaphy (pěr-ī-nē-OR-ă-fē): Suturing of (a tear in) the perineum.

peripheral arterial disease (pě-RIF-(ě-)rāl ar-TĒR-ē-āl diz-ĒZ'): The obstruction of vessels in peripheral regions of the body.

peripheral nervous system (PNS) (pě-RIF-(ě-)rāl NĒR-vūs SIS-tēm): Anatomical division of the nervous system that is largely outside the cranial and vertebral cavities, namely all parts except the brain and spinal cord.

peritoneal (per-it-ō-NĒ-āl): Pertaining to the peritoneum.

peritoneum (per-it-ō-NĒ-ūm): Serous membrane surrounding several organs in the abdominopelvic cavity. This reduces friction between the abdominal and pelvic organs and the body wall.

peritonitis (per-it-ō-NĪT-īs): Inflammation of the peritoneum.

permeability (pěr-mē-ă-BIL-īt-ē): Membrane that causes it to allow liquids or gases to pass through it.

pH (P H): pH is a measure of how acidic or alkaline a substance is, as determined by the number of free hydrogen ions in the substance.

phacomalacia (fāk-ō-mā-LĀ-shē-ă): Softening of the lens.

phagocytes (făg-ō-SĪTS): Cells that engulf and absorb bacteria and cell particles.

phagocytized (FĀG-ō-sīt-īz): This is the process by which certain cells are able to 'eat' other cells or substances by engulfing them.

phagocytosis (făg-ō-sī-TŌ-sīs): Movement of material from the outside to the inside of the cells via vesicles made from invaginations of the plasma membrane.

phalangectomy (fāl-ăn-JĚK-tō-mē): Excision of the phalanges.

pharyngeal (far-în-JĚ-ăl): Pertaining to the pharynx.

pharyngeal tonsils (far-în-JĚ-ăl TON-sīl): A pharyngeal tonsil, also called an adenoid, is an aggregate of lymphoid reticular tissue similar to a lymph node that lies at the superior portion of the nasopharynx.

pharyngitis (far-în-JĪT-is): Inflammation of the pharynx.

pharyngotonsillitis (fă-ring-gō-ton-sī-LĪT-is): Inflammation of the pharynx and tonsils.

pharynx (FAR-ingks): The pharynx is a tube formed by skeletal muscle and lined by mucous membrane that is continuous with that of the nasal cavities.

phimosis (fī-MŌ-sīs): A tightness of the prepuce (foreskin of the penis) that prevents its retraction over the glans penis. It may be congenital or the result of balanitis. Circumcision is the usual treatment.

phlebotomy (fleb-EK-tō-mē): Excision of a vein.

phlebitis (flē-BĪT-is): Inflammation of a vein.

phlebotomist (flē-BŌT-ō-mīst): A specially trained person who draws blood or injects IV fluids.

phlebotomy (flē-BOT-ō-mē): Incision into a vein.

photophobia (fō-tō-FŌ-bē-ă): Sensitivity to light.

phrenospasm (FRĚN-ō-spāzm): Spasm of the diaphragm.

pia mater (PĪ-ă MĀT-ēr): Thin, innermost membrane of the meninges that directly covers the surface of the CNS.

placenta (plă-SENT-ă): The organ of gas and nutrient exchange between the baby and the mother.

placenta abruptio or abruptio placenta (plă-SENT-ă ă-BRŮP-shē-ō): Occurs when the placenta prematurely becomes detached from the uterine wall. This is a medical emergency and requires an immediate c-section to save both the woman and infants lives. the infant will not be getting oxygen from the mother and the mother may hemorrhage.

placenta previa (plă-SENT-ă PRĚ-vē-ă): Occurs when the placenta partially or completely covers the cervical os (opening).

plaque (plak): A fatty material including cholesterol, connective tissue, white blood cells, and some smooth muscle cells.

plasma cells (PLAZ-mă sels): A type of B lymphocyte that produces antibodies which bind to specific foreign or abnormal antigens, in order to destroy them.

plasmapheresis (plăz-mă-fēr-Ē-sīs): Removal of plasma.

pleura (PLOOR-ă): Serous membrane which surrounds the lungs in the leural cavity and reduces friction between the lungs and the body wall.

pleural effusion (PLOOR-ăl ě-FŪ-zhŭn): Fluid in the pleural space (caused by disease or trauma).

pleuritic (ploō-RĪT-ĭk): Pertaining to the pleura.

pleuritis (ploō-RĪ-tīs): Inflammation of the pleura.

pneumatocele (nū-MĀT-ō-sēl): Hernia of the lung.

pneumoconiosis (noo-mō-kō-nē-Ō-sīs): Abnormal condition of dust in the lungs.

pneumonectomy (noo-mō-NEK-tō-mē): Excision of the lung.

pneumonia (noo-MŌN-yă): Diseased state of lung.

pneumonitis (noo-mō-NĪT-is): Inflammation of the lung.

pneumothorax (noo-mō-THŌR-aks): An excessive amount of air is present in the thoracic cavity, outside of the lungs, putting pressure on the lungs and interfering with venous return, pulmonary function, and delivery of oxygen to the tissues.

poliomyelitis (pō-lē-ō-mī-ēl-ĪT-is): Inflammation of gray matter of the spinal cord.

polyarteritis (pol-ē-art-ē-RĪT-is): Inflammation of many (sites in the) arteries.

polycystic ovary syndrome (PCOS) (pōl-ē-SĪS-tĭk Ō-vă-rē SĪN-drôm): Condition typically characterized by hormonal imbalances, ovulatory dysfunction, and multiple ovarian cysts.

polycythemia (POL-ē-sī-THĒ-mē-ă): A disorder in which too many red blood cells are produced.

polycythemia vera (pol-ē-sī-THĒ-mē-ă vēr-ă): A type of bone marrow disease that causes an excessive production of immature erythrocytes.

polydipsia (pol-ē-DIP-sē-ă): Condition of excessive thirst.

polyhydramnios (pōl-ē-hī-DRĀM-nē-ös): A condition where there is excessive amniotic fluid in the placenta. The delivery will be a c-section to prevent bleeding during delivery of the fetus.

polymenorrhea (pōl-ē-mēn-ō-RE-ă): Excessive bleeding during one's period.

polymyositis (pol-ē-mī-ō-SĪ-tīs): Inflammation of many muscles.

polyneuritis (pol-ē-noo-RĪT-is): Inflammation of many nerves.

polyneuropathy (pol-ē-noo-ROP-ă-thē): Disease of many nerves.

polyp (POL-ĭp): Small tumor like growth that extend from the surface of a mucous membrane.

polypectomy (pōl-ĭ-PĒK-tō-mē): Excision of polyps.

polyposis (pōl-ē-PŌ-sis): Abnormal condition of (multiple) polyps.

polysomnography (PSG) (pol-ē-som-NOG-ră-fē): Process of recording many (test) during sleep.

polyuria (pol-ē-ŪR-ē-ă): Excessive urine.

pons (ponz): Latin word meaning bridge, essential part of the brain located above the medulla, action in regulation and controls of vital functions primarily sleep, respiration, swallowing, bladder control, hearing, balance (equilibrium), taste, ocular movement, facial expression and sensation.

posterior (or dorsal) (pös-TĒ-rē-or): Describes the back or direction toward the back of the body.

posteriorly (pös-TĒ-rē-or-lē): Pertaining to behind.

postictal (post-İK-tăl): Occurs after a seizure or attack.

postnatal (post-NĀT-ăl): Pertaining to after birth (reference to the newborn).

postpartum (pöst-PART-üm): After childbirth referring to the mother.

preeclampsia (prē-ē-KLAMP-sē-ă): The abnormal condition in pregnancy where the patient experiences hypertension, edema and proteinuria.

prefix: Word part at the beginning of a medical term that changes the meaning of the word root.

premature infant (prē-mă-CHŪR IN-fănt): Infant born before completing 37 weeks of gestation (also called preterm infant).

premenstrual syndrome (prē-MĒN-stroo-ăl SĪN-drôm): Syndrome involving physical and emotional symptoms occurring up to 10 days before menstruation. Symptoms include nervous tension, irritability, mastalgia, edema, and headache.

prenatal (prē-NĀT-ăl): Pertaining to before birth.

prepuce (PRĒ-pūs): Flap of skin that forms a collar around, and thus protects and lubricates, the glans penis.

presbycusis (prez-bī-KŪ-sis): Hearing impairment occurring with age

priapism (PRĪ-ă-pizm): Persistent, abnormal erection of the penis accompanied by pain and tenderness.

primary adaptive response (PRĪ-mă-rē ad-ap-TĪV ri-SPONS): Immune system's response to the first exposure to a pathogen.

primary lymphoid organ (PRĪ-mă-rē LIM-foyd OR-găn): Site where lymphocytes mature and proliferate, red bone marrow and thymus gland.

primigravida (prī-mī-GRAV-īd-ă): First pregnancy.

primipara (prī-MĪP-ă-ră): First birth.

process (PROS-es): In cells, an extension of a cell body; in the case of neurons, this includes the axon and dendrites.

proctologist (prok-TOL-ō-jist): Specialist who studies and treats diseases of the rectum.

proctology (prök-TÖL-ō-jē): Study of disease and disorders of the rectum.

proctoptosis (prök-töp-TÖ-sis): Prolapse of the rectum.

proctoscope (PRÖK-tă-sköp): Instrument used to view the rectum.

proctoscopy (prök-TÖS-kō-pē): Process of viewing the rectum.

prolapse (PRŌ-laps): Displacement of an organ or anatomic structure from its normal position.

proliferate (prö-LIF-ě-rāt): Reproduce rapidly.

proliferation (prö-lif-ě-RĀ-shōn): Rapid increase in numbers.

proprioception (prō-prē-ō-SĚP-shŭn): Awareness of the position of the body in space

prostaglandins (prös-tă-GLĀN-dĭn): Any of a group of compounds with varying hormone-like effects.

prostate cancer (PROS-tāt KAN-sēr): Cancer of the prostate gland.

prostate gland (PROS-tāt gland): Doughnut-shaped gland at the base of the bladder surrounding the urethra and contributing fluid to semen during ejaculation.

prostatitis (pros-tă-TĪT-ĭs): Inflammation of the prostate gland.

prostatocystitis (pros-tă-tō-sĭs-TĪ-tĭs): Inflammation of the prostate gland and urinary bladder.

prostatolith (prös-TĀT-ō-lĭth): Stone(s) in the prostate gland.

prostatolithotomy (prös-tăt-ō-lĭ-THŌT-ō-mē): Incision into the prostate gland to remove stones.

prostatorrhea (pros-tă-tō-RĒ-ă): Discharge from the prostate gland.

prostatovesiculitis (pros-tă-tō-vē-sĭk-ŭ-LĪ-tĭs): Inflammation of the prostate gland and seminal vesicles.

proximal (PROK-sĭ-māl): Describes a position in a limb that is nearer to the point of attachment or the trunk of the body.

pruritus (proo-RĪT-ŭs): Itching.

pseudocyesis (soo-dō-sĭ-Ē-sĭs): False pregnancy.

pseudophakia (SOOD-ō-FĀ-kē-a): Condition of fake lens.

pseudostratified (soo-dō-STRĀT-ĭ-fĭd): Consisting of closely packed cells which appear to be arranged in layers.

psoriasis (sō-RĪ-ă-sĭs): Chronic autoimmune disorder that results in patches of thick red skin with the appearance of silvery scales.

psychiatrist (sĭ-KĪ-ă-trĭst): Physician who studies and treats disorders of the mind.

psychiatry (sĭ-KĪ-ă-trē): Specialist of the mind.

psychogenic (sĭ-kō-JEN-ik): Originating in the mind.

psychologist (sĭ-KŌL-ō-jĭst): Specialist of the mind.

psychology (sĭ-KOL-ō-jē): Study of the mind.

psychopathy (sĭ-KŌP-ă-thē): Disease of the mind.

psychosis (sĭ-KŌ-sĭs): Abnormal condition of the mind.

psychosomatic (sī-kō-sō-MĀT-ĭk): Pertaining to the mind and body.

puberty (PŪ-bĕrt-ē): The period during which adolescents develop secondary sex characteristics and become capable of reproduction.

pubic (PŪ-bĭk): Pertaining to pubis.

pubofemoral (pū-bō-FĒM-or-ăl): Pertaining to pubic bone and femur.

puerpera (pū-ĒR-pĕ-ră): Childbirth.

puerperal (pū-ĒR-pĕ-răl): Pertaining to immediately after childbirth.

puerperium (pū-ēr-PĒ-rē-ŭm): Period from delivery until the reproductive organs return to normal (approximately six weeks).

pulmonary (PŪL-mō-nĕ-rē ): Pertaining to the lung(s).

pulmonary artery (PŪL-mō-nĕ-rē ART-ĕ-rē): The pulmonary artery is the artery that arises from the pulmonary trunk.

pulmonary edema (PŪL-mō-nĕ-rē ĕ-DĒ-mă): Fluid accumulation in alveoli and bronchioles (related to heart failure).

pulmonary embolism (PE) (PŪL-mō-nĕ-rē EM-bŏ-liĭzm): A piece of a blood clot or other substance has broken free from its original location and traveled through the bloodstream to lodge in a smaller vessel in the lungs. This causes an obstruction in that vessel and hypoxia to the tissues supplied by that vessel.

pulmonary trunk (PŪL-mō-nĕ-rē trŭnk): Very large artery referred to as a trunk, a term indicating that the vessel gives rise to several smaller arteries.

pupillary (PŪ-pĭ-lĕr-ē): Pertaining to pupil.

pupillometer (pū-pĭl-ŌM-ĕ-tĕr): Instrument used to measure the pupil.

pupilloscope (pū-pĭl-ŌS-kŏp): Instrument used to view the pupil.

pustule (PŪS-tŭl): Small elevation of the skin containing fluid.

pyelitis (pī-ĕ-LĪT-ĭs): Inflammation of the renal pelvis.

pyelolithotomy (pī-ĕ-lŏ-lĭth-ŌT-ŏ-mĕ): Incision into the renal pelvis.

pyelonephritis (pī-ĕ-lŏ-nĕ-FRĪT-ĭs): Inflammation of the renal pelvis and the kidney.

pyeloplasty (PĪ-ĕ-lŏ-plăs-tĕ): Surgical repair of the renal pelvis.

pyloric sphincter (pī-LOR-ĭk SFINGK-tĕr): A band of smooth muscle at the junction between the pylorus of the stomach and the duodenum of the small intestine.

pyloric stenosis (pī-LOR-ĭk stĕ-NŌ-sĭs): Narrowing of the pylorus or pyloric sphincter.

pyloromyotomy (pī-lor-ŏ-mĭ-OT-ŏ-mĕ): Incision into the pyloric muscle (used to correct pyloric stenosis).

pyloroplasty (pī-LŌR-ŏ-plas-tĕ): Surgical repair of the pylorus.

pyosalpinx (pī-ŏ-SĀL-pĭnks): Pus in the uterine/fallopian tube.

pyothorax (pī-ŏ-THŌ-răks): Pus in the chest cavity.

## 34. Q

quadrate (KWÖD-rât): A square or rectangular shape.

quadriplegia (kwöd-rĭ-PLĒ-jē-ă): Paralysis of four (limbs). Affects both arms, both legs and sometimes from the neck down.

quickening (KWĪK-ĕn-ĭng): First feeling of movement of the fetus in utero by the pregnant woman.

## 35. R

rachiotomy (rā-kī-ŌT-ō-mē): Incision into the vertebral column.

rachischisis (rā-KĪS-kī-sīs): Fissure of vertebral column.

radial (RĀD-ē-āl): Pertaining to radius.

radicotomy (rād-ī-KŌT-ō-mē): Incision into a nerve root.

radiculitis (rā-dīk-ū-LĪ-tīs): Inflammation of the nerve roots.

radiculopathy (rā-dīk-ū-LŌP-ā-thē): Disease of the nerve roots.

radiography (rā-dē-OG-rā-fē): Process of recording x-rays.

radiologist (rā-dē-ŌL-ō-jīst): Physician who specializes in the diagnosis and treatment of disease using medical imaging.

radiology (rā-dē-ŌL-ō-jē): Study of the use of radiant energy in diagnosing disease.

rebel: Word part that does not fit within the language rules.

rectal (RĚK-tāl): Pertaining to the rectum.

rectocele (REK-tō-sēl): Protrusion of the rectum.

reflux (RĚ-flūks): Abnormal backward flow.

renogram (RĚ-nō-gram): Radiographic record of the kidney.

respiratory zone (rēs-PĪR-ā-tō-rē zōn): The respiratory zone includes structures that are directly involved in gas exchange.

respirologist (res-pī-ROL-ō-jīst): Specialist who studies and treats disease and disorders related to breathing.

respirology (rēs-pīr-ŌL-ō-jē): The study of breathing disorders and disease.

response (ri-SPONS): Nervous system function that causes a target tissue (muscle or gland) to produce an event as a consequence to stimuli.

reticulated (rē-TIK-yŭ-lāt-ēd): Net like.

retinal (RĚT-ī-nāl): Pertaining to the retina.

retinoblastoma (ret-īn-ō-blas-TŌ-mă): Tumor arising from a developing retinal cell.

retinopathy (ret-īn-OP-ā-thē): Disease of the retina.

retinoscopy (ret-īn-OS-kō-pē): Process of viewing the retina.

retrograde urogram (RE-trō-grād Ū-rō-grām): Radiographic image of the urinary tract.

rhabdomyolysis (rab-dō-mī-OL-ī-sīs): Dissolution of a striated muscle.



rheumatoid arthritis (ROO-mă-toyd ar-THRĪT-īs): An autoimmune disorder in which the body mounts an immune response against its own joint tissues, causing inflammation and damage to the joints.

rhinitis (rī-NĪ-tīs): Inflammation of the nasal cavity which can lead to rhinorrhea.

rhinomycosis (rī-nō-mī-KŌ-sīs): Abnormal condition of fungus in the nose.

rhinoplasty (RĪ-nō-plās-tē): Surgical repair of the nose.

rhinorrhagia (rī-nō-RĀ-jē-ă): Rapid flow of blood from the nose.

rhinorrhea (rī-nō-RĒ-ă): Excessive flow or discharge from the nasal cavity (runny nose).

rhizomeningomyelitis (rī-zō-mē-nĭn-gō-mī-ě-LĪ-tīs): Inflammation of the nerve root, meninges and spinal cord.

rhizotomy (rī-ZŌT-ō-mē): Incision into a nerve root.

rhytidectomy (rit-ĭ-DEK-tō-mē): Excision of the wrinkles.

rhytidoplasty (RĪT-ĭ-dō-plās-tē): Surgical repair of wrinkles.

rickets (RIK-ěts): A painful condition in children where bones are misshapen due to a lack of calcium, causing bow leggedness.

right lymphatic duct (rīt lim-FAT-ik dükt): Drains lymph fluid from the upper right side of body into the right subclavian vein.

robotic surgery (rō-BŎ- tĭk SŪRJ-ě-rē): Use of small surgical instruments attached to a computer and operated by the surgeon from a console several feet from the operating table.

roots of the great vessels: The part of each great vessel (aorta, pulmonary trunk, inferior vena cava, superior vena cava) that connects to the base of the heart.

## 36. S

sacral (SAK-răl, SĂ-krăl): Pertaining to the sacrum.

sagittal plane (SĂJ-î-tăl plăn): Plane that divides the body or an organ vertically into left and right sides.

salpingectomy (sal-pîn-JEK-tō-mē): Excision of the uterine/fallopian tube.

salpingitis (săl-pîn-JĪ-tīs): Inflammation of a fallopian/uterine tube.

salpingo-oophorectomy (săl-pîng-gō-ō-ōf-ō-RĚK-tō-mē): Excision of the uterine tube and ovary.

salpingostomy (săl-pîng-ŎS-tō-mē): Creation of an artificial opening in the uterine tube.

sarcopenia (săr-kō-PĒN-ē-ă): Abnormal reduction of connective tissue.

satellite cell (SĂT-l-ît sel): Glial cell type in the PNS that provides support for neurons in the ganglia.

scar (skăr): Collagen-rich skin formed after the process of wound healing that differs from normal skin. Also known as a cicatrix.

Schwann cell (shvon sel): Glial cell type in the PNS that provides the myelin insulation for axons in nerves.

sclerokeratitis (sklēr-ō-kēr-ă-TĪ-tīs): Inflammation of the sclera and cornea.

scleromalacia (sklĕ-rō-mā-LĀ-sē-ă): Softening of the sclera.

sclerotomy (sklĕ-ROT-ō-mē): Incision into the sclera.

scoliosis (skō-lē-Ŏ-sīs): Abnormal condition of (lateral) curved spine.

scrotum (SKRŌ-tŭm): External pouch of skin and muscle that houses the testes.

sebaceous gland (sē-BĀ-shŭs gland): Type of oil gland that is found all over the body and helps to lubricate and waterproof the skin and hair.

seborrhea (sĕb-or-Ē-ă): Discharge (excessive) of sebum.

secondary adaptive response (SĚK-ŏn-dăr-ē ad-ap-TĪV ri-SPONS): Immune response observed upon re-exposure to a pathogen, which is stronger and faster than a primary response.

secondary lymphoid organs (SĚK-ŏn-dăr-ē LIM-foyd OR-găn): Sites where lymphocytes mount adaptive immune responses, examples include lymph nodes and spleen.

semen (SĒ-mĕn): Ejaculatory fluid composed of sperm and secretions from the seminal vesicles, prostate, and bulbourethral glands.

seminal vesicle (SĚM-î-năl VES-î-kĕl): Gland that produces seminal fluid, which contributes to semen.

seminiferous tubules (sĕm-în-ĪF-ĕr-ŭs TŪ-bŭls): Tube structures within the testes where spermatogenesis occurs.

sensation (sen-SĀ-shŏn): Nervous system function that receives information from the environment and translates it into the electrical signals of nervous tissue.

sepsis (SEP-sīs): Toxic condition due to spread of bacteria or their toxins from an infection.

septal cartilage (SEP-tŭm KART-ĭ-lăj): The flexible portion you can touch with your fingers.

septoplasty (sĕp-tō-PLĂS-tē): Surgical repair of the septum.

septotomy (sĕp-TŌT-ō-mē): Incision into the (nasal) septum.

seroconversion: The reciprocal relationship between virus levels in the blood and antibody levels. As the antibody levels rise, the virus levels decline, and this is a sign that the immune response is being at least partially effective (partially, because in many diseases, seroconversion does not necessarily mean a patient is getting well).

serous (SĒR-ŭs): You may recall that serous membranes throughout the body are folded back on themselves, which results in a double-layered membrane separated by serous fluid. The serous membrane surrounding the lungs is called pleura. The serous membrane surrounding the abdominopelvic organs is called peritoneum.

serous membrane (serosa) (SĒR-ŭs MEM-brăn): Epithelial membrane composed of mesodermally derived epithelium (mesothelium) that is supported by connective tissue.

serous space (SĒR-ŭs spās): Thin, fluid-filled space between the parietal and visceral layers of the serous membrane.

Sertoli cells (SERT-ŏ-lē sels): Cells that support germ cells through the process of spermatogenesis; a type of sustentacular cell.

severe combined immunodeficiency disease (scid): Genetic mutation that affects both t cell and b cell arms of the immune response.

sexually transmitted disease (STD) (SEKS-ŭ-ă-lē trăn-s-MĪT-ed diz-ĒZ): Infection spread through sexual contact.

sialolith (sĭ-AL-ŏ-lith): Stone in the salivary gland.

sickle cell disease: A genetic disorder involving the production of an abnormal type of hemoglobin which delivers less oxygen to tissues and causes erythrocytes to assume a sickle (or crescent) shape.

sidestream smoke (SĪD-strēm smŏk): Smoke that is given off by the burning cigarette.

sigmoidoscopy (sig-moy-DOS-kŏ-pē): Process of viewing the sigmoid colon.

silent MI: A myocardial infarction without symptoms. The patient may not know that they are having an MI

sinus rhythm (SĪ-nŭs Rĭth-ĭm): This is the rhythm set by the heart's pacemaker, the sinoatrial node and is usually approximately 60-90 beats per minute in a resting adult

sinusitis (sĭ-nŭs-Ī-tĭs): Inflammation of a sinus.

skeletal muscle (SKEL-ĕt-ŏn MŪS-ĕl): Skeletal muscles are responsible for voluntary muscle movement.

sleep apnea (slĕp ap-NĒ-ă): Chronic condition characterized by the cessation of breathing during sleep.

smooth muscle (MŪS-ĕl): Smooth muscle is mainly associated with the walls of internal organs. Smooth muscles are responsible for involuntary muscle movement.

soft palate (soft PAL-ăt): The soft palate is located at the posterior portion of the nasal cavity and consists of muscle tissue.

solute (SOL-ūt): The minor component in a solution.

soma (SŌ-mă): In neurons, that portion of the cell that contains the nucleus; the cell body, as opposed to the cell processes (axons and dendrites).

somatic nervous system (SNS) (sō-MAT-ik NĚR-vūs SIS-tēm): Functional division of the nervous system that is concerned with conscious perception, voluntary movement, and skeletal muscle reflexes.

sonogram (SON-ŏ-gram): The record of sound.

sonography (sō-NOG-ră-fē): Process of recording sound.

sonohysterography (SHG) (sō-nō-his-tē-ROG-ră-fē): Process of recording the uterus by use of sound.

speculum (SPEK-yŭ-lŭm): Instrument for opening a body cavity to allow visual inspection.

sperm (pl; spermatozoa) (spĕrm (pl; spĕr-măt-ŏ-ZŌ-ă): Male gamete.

spermatic cord (spĕr-MĀT-ĭk kord): Bundle of nerves and blood vessels that supplies the testes; contains ductus deferens.

spermatid (SPĚR-mă-tĭd): Immature sperm cells produced by meiosis II of secondary spermatocytes.

spermatocele (spĕr-MĀT-ŏ-sēl): Distention of the epididymis containing an abnormal cyst-like collection of fluid and sperm cells.

spermatocyte (spĕr-MĀT-ŏ-sīt): Cell that results from the division of spermatogonium and undergoes meiosis I and meiosis II to form spermatids.

spermatogenesis (spĕr-măt-ŏ-JĚN-ĕ-sĭs): Formation of new sperm, occurs in the seminiferous tubules of the testes.

spermatogonia (spĕr-măt-ŏ-GŌ-nĕa): Diploid precursor cells that become sperm (singular = spermatogonium).

spermatolysis (spĕr-măt-ŌL-ĭ-sĭs): Dissolution (destruction) of sperm.

spermiogenesis (spĕr-mĕ-ŏ-JĚN-ĕ-sĭs): Transformation of spermatids to spermatozoa during spermatogenesis.

sphincter (SFĬNK-tĕr): A circular muscle constricting an orifice.

spinal cord (SPĪ-nāl kord): Organ of the central nervous system found within the vertebral cavity and connected with the periphery through spinal nerves; mediates reflex behaviors.

spleen (splĕn): Secondary lymphoid organ that filters pathogens from the blood (white pulp) and removes degenerating or damaged blood cells (red pulp).

splenectomy (splĕ-NEK-tŏ-mĕ): Excision of the spleen,

splenomegaly (splĕ-nŏ-mĕ-GĀ-lĕ): Enlarged spleen.

splenopexy (SPLĕ-nŏ-pĕk-sē): Surgical fixation of the spleen.

sphygmomanometer (sfĭg-mŏ-măn-ŌM-ĕt-ĕr): Instrument used to measure blood pressure.

spirometer (spĭ-Rŏm-ĕt-ĕr): Instrument used to measure breathing (lung volume).

spirometry (spĭ-RŌM-ĕ-trĕ): Measuring breathing (air flow).

spondylarthritis (spon-dil-ar-THRĪT-ĭs): Inflammation of the vertebra and joint.

spondylosis (spōn-dī-LŌ-sīs): Abnormal condition of the vertebrae.

sprain (sprān): Injury to a joint whereby a ligament is stretched or torn.

sputum (SPŪT-ŭm): Mucous secretion from lungs, bronchi, and trachea that is expelled through the mouth.

squamous cell carcinoma (SKWĀ-mŭs sel kar-sīn-Ō-mă): Cancer that affects the deratinocytes of the stratum spinosum and presents as lesions commonly found on the scalp, ears, and hands.

stapedectomy (stā-pě-DEK-tō-mē): Excision of the stapes.

staphylococcus (staf-ī-lō-KOK-ŭs): Berry-shaped bacterium in grapelike clusters.

Staphylococcus aureus (staf-ī-lō-KOK-ŭs): Staphylococcus aureus is a bacterium that is commonly found in minor skin infections, as well as in the nose of some healthy people.

steatohepatitis (stē-ăt-ō-hep-ă-TĪT-īs): Inflammation of the liver associated with fat.

steatorrhea (stē-ă-tō-RĒ-ă): Discharge of fat.

steatosis (stē-ă-TŌ-sīs): Abnormal condition of fat.

sterility (stē-RIL-īt-ē): A condition of being unable to conceive or reproduce the species.

sterilization (ster-ī-lī-ZĀ-shōn): Procedure that prevents pregnancy, either a female's ability to conceive or a male's ability to induce conception.

sternoclavicular (stēr-nō-klă-VĪK-ŭ-lăr): Pertaining to the sternum and clavicle.

sternoid (STĒR-noyd): Resembling the sternum.

stethoscope (STETH-ō-skōp): Instrument used to hear internal body sounds.

stillborn (STIL-bōrn): An infant that is born dead.

stimulus (STĪM-ŭ-lŭs): An event in the external or internal environment that registers as activity in a sensory neuron.

stoma (STŌ-mă): Surgical opening between an organ and the surface of the body.

stomatitis (stō-mă-TĪT-īs): Inflammation of the mouth.

stomatogastric (stō-mă-tō-GĀS-trĭk): Pertaining to the mouth and stomach.

strain (strān): Injury to a muscle whereby a tendon is stretched or torn.

stratified squamous epithelium (STRĀT-ī-fĭd SKWĀ-mŭs ep-i-THĒ-lē-ŭm): Cells arranged in layers upon a basal membrane.

stratum basale (STRĀ-tŭm BĀS-al): Deepest layer of the epidermal.

streptococcus (strep-tō-KOK-ŭs): Berry-shaped bacterium in twisted chains.

stricture (STRIK-chŭr): Abnormal narrowing.

stroke (strōk): Loss of neurological function caused by an interruption of blood flow to a region of the central nervous system.

sty (stī): Infection of an oil gland of the eyelid (hordeolum).

stye (stī): Acute infection of eyelash hair follicle.

subarachnoid space (süb-ă-RAK-noyd spās): Space between the arachnoid mater and pia mater that contains CSF and the fibrous connections of the arachnoid trabeculae.

subcostal (süb-KOS-tāl): Pertaining to below the ribs.

subcutaneous (süb-kū-TĀ-nē-ūs): Pertaining to under the skin.

subdural (süb-DŪ-rāl): Pertaining to below the dura mater.

subdural hematoma (süb-DŪ-rāl hēm-ă-TŌ-mă): Tumor filled with blood pertaining to below the dura mater.

sublingual (süb-LING-gwāl): Pertaining to under the tongue.

submandibular (süb-măn-DĪB-ŭ-lăr): Pertaining to under the mandible.

submaxillary (süb-MĀK-sī-lěr-ē): Pertaining to under the maxilla.

subscapular (süb-SKĀP-ŭ-lăr): Pertaining to below the scapula.

substernal (süb-STĒR-năl): Pertaining to below the sternum.

subungual (süb-ŪNG-gwāl): Pertaining to under the nail.

suffix: A word part added to the end of a word that changes the meaning of the word root.

sulcus/sulci (SŪL-kūs/ SŪL-kī): Groove formed by convolutions in the surface of the cerebral cortex; see fissure.

superficial (SOO-pěr-FISH-ăl): Describes a position closer to the surface of the body.

superficial lymphatics (soo-pěr-FĪSH-ăl lim-FAT-iks): Lymphatic vessels of the subcutaneous tissues of the skin.

superior (or cranial) (soo-PĒ-rē-or): Describes a position above or higher than another part of the body proper.

superior vena cava (soo-PĒ-rē-or VĒ-nă KĀ-vă): One of the two largest veins in the body. It carries deoxygenated blood from the head and upper extremities back to the heart.

suprapatellar (soo-pră-pă-TĒL-ăr): Pertaining to above the knee cap.

suture (SOO-chŭr): To stitch the edges of a wound.

sympathetic (sīm-pă-THĒT-ik): Flight or fight response.

sympathetic nervous system (sīm-pă-THĒT-ik NĒR-vŭs SIS-tēm): Part of the nervous system that serves to accelerate heart rate, constrict blood vessels and raise blood pressure in response to stress. Responsible for fight or flight responses.

synapse (SĪN-ăps): Narrow junction across which a chemical signal passes from neuron to the next, initiating a new electrical signal in the target cell.

synaptic end bulb (sī-NĀP-tik ende būlb): Swelling at the end of an axon where neurotransmitter molecules are released onto a target cell across a synapse.

synarthrosis (sīn-ăr-THRŌ-sīs): Joints with no movements.

syncope (SING-kō-pē): Fainting.

syndrome (SĪN-drōm): Run together (signs and symptoms occur together characterizing of a specific disorder).

synovectomy (sĭn-ō-VĒK-tō-mē): Excision of the synovial membrane.

synovial membrane (sĭn-Ō-vē-āl MEM-brān): Connective tissue membrane that lines the cavity of a freely movable joint.

synoviosarcoma (sĭn-ō-vē-Ō-mă-sar-KŌ-mă): Malignant tumor of the synovial membrane.

synthesis (Sĭn-thēs-ĭs): The production of chemical compounds by reaction from simpler materials.

syphilis (SIF-ĭ-lĭs): A chronic bacterial disease spread primarily through sexual intercourse, but also congenitally by infection of a developing fetus. Rapidly spreads through the body and if left untreated becomes systemic.

systemic lupus erythematosus (sĭs-tēm'ĭk loo'pŭs): Autoimmune disease in which the immune system recognizes its own cell antigens as being "non-self" and mounts an immune response against them. As a result, many body tissues and vital organs become chronically inflamed and damaged.

systole (SIS-tō-lē): Phase in cardiac cycle when ventricles contract and eject blood.

systolic pressure (SIS-tō-lik): The systolic pressure is the higher value (typically around 120 mm Hg) and reflects the arterial pressure resulting from the ejection of blood during ventricular contraction, or systole.

## 37. T

T cell (T sel): Lymphocyte that acts by secreting molecules that regulate the immune system or by causing the destruction of foreign cells, viruses, and cancer cells.

tachycardia (tak-ē-KARD-ē-ă): Condition of a fast heart (rate).

tachypnea (tak-i(p)-NĒ-ă): Rapid breathing.

tarsectomy (tar-SEK-tō-mē): Excision of the tarsal.

temporal lobe (TEM-p(ō)-rāl lōb): Region of the cerebral cortex directly beneath the temporal bone of the cranium.

tendinitis (ten-dī-NĪT-īs): Inflammation of the tendon.

tenomyoplasty (tēn-ō-MĪ-ō-plās-tē): Surgical repair of the tendon and muscle.

tenorrhaphy (tēn-OR-ă-fē): Suturing of a tendon.

tenosynovitis (ten-ō-sin-ō-VĪT-īs): Inflammation of the tendon and synovial membrane.

teratogen (tē-RAT-ō-jēn): Agent producing malformations (in a developing embryo) such as chemicals, viruses and environmental factors.

teratogenic (tē-rat-ō-JĒN-ĭk): Producing malformations.

teratology (tēr-ă-TŌL-ō-jē): The study of malformations.

term built from word parts: Term that can be translated literally to find their meaning.

term NOT built from word parts: Term that cannot be translated literally.

testes (TĒS-tēs): Male gonads (singular = testis).

testicular cancer (tēs-TĪK-ū-lă KAN-sēr): Cancer of the testicle.

testicular torsion (tēs-TĪK-ū-lă TOR-shōn): Twisting of the spermatic cord causing decreased blood flow to the testis. Considered a surgical emergency and accompanied by sudden onset of severe scrotal pain.

thalamus (THĀL-ă-mūs): Major region of the diencephalon that is responsible for relaying information between the cerebrum and the hindbrain, spinal cord, and periphery.

thalassemia (thal-ă-SĒ-mē-ă): An inherited condition typically occurring in individuals from the Middle East, the Mediterranean, African, and Southeast Asia, in which maturation of the RBCs does not proceed normally. The most severe form is called Cooley's anemia.

thermoreceptors (thēr-mō-rē-SĒP-tor): Specialized neurons that respond to changes in temperature.

thoracalgia (thō-rāk-ĀL-jē-ă): Pain in the chest.

thoracentesis (thō-ră-sen-TĒ-sīs): Surgical puncture to aspirate fluid from chest cavity.

thoracic (thō-RĀS-ĭk): Pertaining to the chest.



thoracic duct (thō-RĀS-ĭk dŭkt): Large duct that drains lymph from the lower limbs, left thorax, left upper limb, and the left side of the head.

thoracocentesis (thō-ră -kō-sen-TĒ-sĭs): Surgical puncture to aspirate fluid (from the chest cavity).

thoracoscope (thō-RĀ-kō-skōp): Instrument used to visualize the chest cavity.

thoracoscopy (thō-ră-KŌS-kō-pē): Visual examination of the chest cavity.

thoracotomy (thō-rāk-ŌT-ō-mē): Incision into the chest cavity.

tract (trakt): Bundle of axons in the central nervous system having the same function and point of origin.

thrombocytes (THRŌM-bō-sĭts): These are cell fragments that aid in blood clotting.

thrombocytopenia (throm-bō-sĭt-ō-PĒ-nē-ă): Abnormal reduction of (blood) clotting cells.

thrombocytosis (THRŌM-bō-sĭ-tō-sĭs): A condition in which there are too many platelets.

thrombolysis (throm-BOL-ĭ-sĭs): Dissolution of a (blood) clot.

thrombophlebitis (throm-bō-flē-BĪT-ĭs): Inflammation of a vein associated with a (blood) clot.

thrombosis (throm-BŌ-sĭs): Formation of unwanted blood clots.

thrombus (THROM-bŭs): (blood) clot (attached to the interior wall of artery or vein).

thymectomy (thĭ-MĔK-tō-mē): Excision of the thymus gland.

thymocytes (THĪ-mō-sĭt): Lymphocytes that develop into T-cells in the thymus gland.

thymoma (thĭ-MŌ-mă): Tumor of the thymus gland.

thymus (THĪ-mŭs): Primary lymphoid organ, where t lymphocytes proliferate and mature.

thyroidectomy (thĭ-royd-EK-tō-mē): Excision of the thyroid gland.

thyroiditis (thĭ-royd-ĪT-ĭs): Inflammation of the thyroid gland.

thyroidotomy (thĭ-royd-ŌT-ō-mē): Incision into the thyroid gland.

thyroparathyroidectomy (thĭ-rō-par-ă-thĭ-royd-EK-tō-mē): excision of the thyroid gland and parathyroid glands.

tibial (TĪB-ē-ăl): Pertaining to the tibia.

tinea (TIN-ē-ă): A group of fungal skin diseases, characterized by itching, scaling, and sometimes painful lesions.

tissue (TISH-oo): Group of many similar cells that work together to perform a similar function.

tissue membrane (TISH-oo MEM-brăn): Thin layer or sheet of cells that covers the outside of the body, the organs, internal passageways that lead to the exterior of the body, and the lining of the movable joint cavities.

tissue rejection (TISH-oo rĕ-JEK-shŏn): The recipient's immune system recognizes the transplanted tissue, the graft, as non-self and mounts an immune response against it, ultimately destroying it.

tissue typing (TISH-oo TĪP-ĭng): The determination of MHC molecules in the tissue to be transplanted to better match the donor to the recipient.

tomography (tō-MOG-ră-fē): Process of recording slices.

tonometer (tō-NOM-ēt-ēr): Instrument used to measure pressure (within the eye).

tonometry (tō-NOM-ē-trē): Process of measuring pressure (within the eye).

tonsillectomy (tōn-sil-ĒK-tō-mē): Excision of the tonsils.

tonsillitis (tōn-sil-Ī-tis): Inflammation of the tonsils.

tonsils (TON-sils): Lymphoid nodules associated with the nasopharynx.

toxic shock syndrome: Severe illness characterized by high fever, rash, vomiting, diarrhea, and myalgia followed by hypotension and, in severe cases, shock and death. Typically occurs in women using tampons and caused by *Staphylococcus aureus* and *Streptococcus pyogenes*.

trachea (TRĀ-kē-ă): The trachea (windpipe) extends from the larynx toward the lungs.

tracheitis (trā-kē-Ī-tis): Inflammation of the trachea.

trachelectomy (trak-ē-LEK-tō-mē): Excision of the cervix.

trachelorrhaphy (trā-kēl-OR-ă-fē): Suturing of the cervix.

tracheoplasty (TRĀ-kē-ō-plās-tē): Surgical repair of the trachea.

tracheostenosis (trā-kē-ō-stēn-Ō-sis): Narrowing of the trachea.

tracheostomy (trā-kē-ŌS-tō-mē): Creation of an artificial opening into the trachea.

transdermal (trānz-DĒRM-ăl): Pertaining to through the skin.

transient ischemic attack (TIA) (TRAN-zē-ēt is-KĒ-mē-ă ă-TAK): Temporary disruption of blood flow to the brain in which symptoms occur rapidly but last only a short time.

transurethral (trans-ū-RĒ-thrăl): Pertaining to through the urethra.

transurethral incision of the prostate gland (TUIP): Surgical procedure that widens the urethra by making a few small incisions in the bladder neck and the prostate gland.

transurethral microwave thermotherapy (TUMT): Treatment that eliminates excess tissue present in benign prostatic hyperplasia by using heat generated by microwave.

transurethral resection of the prostate gland (TURP): Surgical removal of pieces of the prostate gland tissue by using an instrument inserted through the urethra.

transverse plane (trāns-VĒRS plān): Plane that divides the body or organ horizontally into upper and lower portions.

trichomoniasis (trik-ō-mō-NĪ-ă-sis): Sexually transmitted disease caused by the one-cell organism *Trichomonas*. Chiefly affects the urinary tract, vagina, or digestive system.

tubal ligation (TOO-băl li-GĀ-shōn): Surgical closure of the fallopian tubes for sterilization.

tympanic membrane (tīm-PĀN-ik MEM-brān): Ear drum.

tympanometer (tīm-pā-NŌM-ē-tēr): Instrument used to measure the middle ear.

tympanometry (tīm-pǎ-NŎM-ě-trē): Measurement of the tympanic membrane.

tympanoplasty (tīm-pǎn-ō-PLĀS-tē): Surgical repair of the tympanic membrane.

## 38. U

ulnoradial (ŭl-nŏ-RĀD-ē-ăl): Pertaining to the ulna and nerve root.

ungual (ŬNG-gwăl): Pertaining to the nail.

unilateral (ŭ-nĩ-LĀT-ēr-ăl): Pertaining to one side.

unipolar (ŭ-nĩ-PŌ-lăr): Shape of a neuron which has only one process that includes both the axon and dendrite.

upper respiratory infection ((ŬP-er RES-pĩr-ă-tŏ-rē ĩn-FEK-shun): Infection of the nasal cavity, pharynx and larynx cause by a virus.

ureterectomy (ŭ-rē-těr-ĚK-tŏ-mē): Excision of the ureter.

ureteritis (ŭ-rē-těr-Ī-tīs): Inflammation of the ureter.

ureterocele (ŭ-RĚ-těr-ŏ-sēl): Protrusion of a ureter.

ureterolithiasis (ŭ-rē-těr-ŏ-lĩth-Ī-ăs-īs): Condition of stone(s) in the ureter.

ureteroscopy (ŭ-RĚT-ě-rŏ-skŏp): Visual examination of the ureter(s).

ureterostomy (ŭ-rē-těr-ŎS-tŏ-mē): Creation of an artificial opening into the ureter.

ureterstenosis (ŭ-rē-těr-stě-NŎ-sīs): Narrowing of the ureter.

urethritis (ŭr-ē-THRĪT-īs): Inflammation of the urethra.

urethrocystitis (ŭ-rē-thrŏ-sīs-TĪ-tīs): Inflammation of the urethra and the bladder.

urinal (Ŭ-rĩn-ăl): Receptacle for urine.

urinary (Ŭ-rĩ-nār-ē): Pertaining to urine.

urogram (Ŭ-rŏ-grăm): Radiographic image of the urinary tract.

urologist (ŭ-RŎL-ŏ-jĩst): Physician who studies and treats diseases of the urinary tract.

uterine fibroid (ŬT-ě-rĩn FIB-royd): Benign tumor of the uterine muscle.

uterine prolapse (ŬT-ě-rĩn PRŎ-laps): Downward displacement of the uterus into the vagina.

uterus (ŬT-ě-rŭs): A muscular organ that nourishes and supports the growing embryo; its functions are menstruation, pregnancy, and labor.

uvula (Ŭ-vyŭ-lă): The uvula is a small bulbous, teardrop-shaped structure located at the apex of the soft palate.

uvulectomy (ŭ-vyŭ-LEK-tŏ-mē): Excision of the uvula.

uvulitis (ŭ-vyŭ-LĪT-īs): Inflammation of the uvula.

uvulopalatopharyngoplasty (UPPP) ((ŭ-vyŭ-lŏ-pal-ăt-ŏ-fă-RING-gŏ-plăs-tē): Surgical repair of the uvula, palate, and pharynx.



## 39. V

vaccine (vak-SĔN): A killed or weakened pathogen or its components that, when administered to a healthy individual, leads to the development of immunological memory (a weakened primary immune response) without causing much in the way of symptoms.

vagina (vă-JĪ-nă): A muscular canal approximately 10 cm long that is the entrance to the reproductive tract; it also serves as the exit from the uterus during menses and childbirth.

vaginal (VAJ-in-ăl): Pertaining to the vagina.

vaginal birth following a c-section: Having a vaginal delivery after a previous c-section delivery.

vaginal fistula (VAJ-in-ăl FIS-chŭ-lă): Abnormal opening between the vagina and another organ, such as the urinary bladder, colon, or rectum.

vaginitis (vaj-ĭ-NĪT-is): Inflammation of the vagina.

vaginosiis (vaj-ĭ-NŌ-sīs): Abnormal condition of the vagina.

valvulitiis (val-vyŭ-LĪT-is): Inflammation of a valve.

valvuloplasty (VAL-vyŭ-lō-plas-tē): Surgical repair of a valve.

varicocele (VAR-iō-sēl"): Enlarged veins of the spermatic cord.

vascularized (VAS-kyŭ-lă-rīzd): Has numerous blood vessels.

vasectomy (vă-SEK-tō-mē): Excision of a duct.

vasoconstrict (vā-zō-kōn-STRIK): The smooth muscle layer in the blood vessel wall contracts, causing the vessel diameter to narrow. This increases blood pressure in the vessel.

vasodilate (vā-zō-dī-LĀT): The smooth muscle layer in the wall of the blood vessel relaxes, allowing the vessel to widen. This decreases blood pressure in the vessel.

vasodilation (vā-zō-dil-ă-TĀ-shōn): The smooth muscle layer in the wall of the blood vessel relaxes, allowing the vessel to widen. This decreases blood pressure in the vessel.

vasovasostomy (vā-zō-vā-ZOS-tō-mē): Creation of an artificial opening between ducts (restores fertility to males who have had a vasectomy).

vein (vān): Blood vessels that carry blood back to the heart.

venogram (VĒ-nō-gram): Radiographic image of a vein.

ventilator (VENT-ĭ-lāt-ōr): Mechanical device that assist with breathing.

ventricle (VEN-tri-kēl): Central cavity within the brain where CSF is produced and circulates.

venules (VEN-ŭls): Extremely small veins.

verruca (vě-ROO-kă): Also known as a wart. An epidermal growth caused by a virus.

vertebrocostal (věř-tě-brō-KŎS-tāl): Pertaining to vertebrae and ribs.

vertebroplasty (VER-tē-brō-plas-tē): Surgical repair of the vertebral column.

vesicotomy (vēs-ī-KŎT-ō-mē): Incision into the bladder.

vesicovaginal (vēs-ī-kō-VĀJ-ī-nāl): Pertaining to the bladder and the vagina.

vesiculectomy (vě-sik-yŭ-LEK-tŏ-mē): Excision of the seminal vesicle.

vessel compliance (VES-ěl kŏm-PLĪ-āns): The ability of any compartment to expand to accommodate increased content. The greater the compliance of an artery, the more effectively it is able to expand to accommodate surges in blood flow without increased resistance or blood pressure.

vestibular (ves-TIB-yŭ-lār): Pertaining to the vestibule.

vestibulocochlear (ves-tī-bŭl-ō-KŎ-klē-ar): Pertaining to the vestibule and cochlea.

virus (VĪ-rŭs): Minute microorganism that may cause infection by invading body tissue.

visceral (VĪS-ēr-āl): Pertaining to internal organs.

visceral layer (VĪS-ēr-āl LĀ-ēr): Layer of serous membrane which covers the organs (viscera).

viscosity (vis-KOS-īt-ē): The thickness of fluids that affects their ability to flow.

visual acuity (VIZH-u-āl ā-KŪ-īt-ē): Sharpness of vision.

void (VOYD): Empty or evacuate waste material, urinate.

voiding (VOYD-ing): Excrete (waste matter).

vulva (VŮL-vă): External genitals of the female including the mons pubis, labia majora, labia minora, clitoris, urinary meatus, and vaginal opening.

vulvectomy (vŭl-VĚK-tŏ-mē): Excision of the vulva.

vulvovaginal (vŭl-vō-VĀJ-ī-nāl): Pertaining to the vulva and vagina.

vulvovaginitis (vŭl-vō-văj-ī-NĪ-tīs): Inflammation of the vulva and vagina.

## 40. W

Wernicke's area (VER-nĭk-ě AR-ě-ă): Region at the posterior end of the lateral sulcus in which speech comprehension is localized.

wheal and flare response: A soft, pale swelling at the site surrounded by a red zone. (A wheal is also known as a "hive")

white matter (hwīt MAT-ěr): Regions of the nervous system containing mostly myelinated axons, making the tissue appear white because of the high lipid content of myelin.

word root: The foundational meaning of a word.



## 41. X

xeroderma (zer-ŏ-DĚR-mă): Dry skin.

xerophthalmia (zer-of-THAL-mē-ă): Condition of dry eye.

xerosis (zĕ-RŌ-sīs): Abnormal condition of dryness.

## 42. Z

zygote (Zī-gōt): Process of fertilization is complete and results in a single-celled diploid zygote with all the genetic instructions it needs to develop into a human.

zygote intrafallopian transfer (ZIFT): Mixing of the ova and sperm in a laboratory. Fertilization is confirmed to grow into zygotes and then are inserted into the Fallopian tubes.