
Section Review 2.1

1. **Answer:** C. Root

Rationale: The root is the word part holding the fundamental meaning to the medical term, and each medical term contains at least one root or base word.

2. **Answer:** B. Eyelid

Rationale: The root Blephar- means eyelid, indicating a blepharoplasty is performed on the eyelid.

3. **Answer:** D. Surgical removal of an ovary and tube.

Rationale: The root salpingo- means oviduct or tube. The root oophor- means ovary. The suffix -ectomy means excision or surgical removal of. The pairing of salpingo- with oophor- tells you the procedure was performed on the female reproductive organs and not the auditory system.

4. **Answer:** B. Nail

Rationale: The root onych- means nail. Paronychia is inflammation of the nail fold surrounding the nail plate.

5. **Answer:** B. Beneath the fascia.

Rationale: The root fasci- means fascia. Subfascial is beneath the fascia. Fascia is a sheath of fibrous tissue covering individual skeletal muscles or certain organs.

6. **Answer:** B. Creation of a hole in the trachea.

Rationale: The root trache- means trachea. The suffix -ostomy means surgical creation of an opening. A tracheostomy is surgical creation of an opening in the trachea and is used to help a patient breathe.

7. **Answer:** A. White blood cells.

Rationale: The root leukocyte- means white blood cell. Leukocytosis is an increase in white blood cells, which can indicate infection in the body.

8. **Answer:** B. Surgical removal of the tongue.

Rationale: The root gloss- means tongue. The suffix -ectomy means excision or surgical removal of. A glossectomy is partial or total removal of the tongue and can be performed to remove tongue cancer.

9. **Answer:** C. Common bile duct

Rationale: The root choledoch- means common bile duct. A choledochal cyst originates from the common bile duct and usually has symptoms including right upper abdominal pain and jaundice.

10. **Answer:** A. Bladder and urethra

Rationale: The root cyst- means urinary bladder. The root word urethr- means urethra. A cystourethroscopy is an examination of the urinary bladder and urethra.

Section Review 2.2

1. **Answer:** D. Epithelial tissue

Rationale: Squamous cell carcinoma and basal cell carcinoma are both cancers of cells in epithelial tissue. Epithelial tissue is found in the skin, lining of the blood vessels, respiratory, intestinal and urinary tracts, and other body systems.

2. **Answer:** C. Thoracic cavity

Rationale: The thoracic, or chest cavity is the space containing the heart, lungs, esophagus, trachea, bronchi, and thymus.

3. **Answer:** A. Mucous membrane

Rationale: Mucous membranes lines the interior walls of the organs and tubes open to the outside of the body, such as those of the digestive, respiratory, urinary, and reproductive systems. Mucous membranes are often adapted for absorption and secretion.

4. **Answer:** B. Stratum Lucidum

Rationale: The stratum lucidum is a clear layer normally found only on the palms of the hands and the soles of the feet.

5. **Answer:** C. Hypodermis

Rationale: The hypodermis (subcutaneous) serves to protect the underlying structures, prevent loss of body heat and anchor skin to the underlying musculature. Fibrous connective tissue referred to as superficial fascia is included in this layer.

Section Review 2.3

1. **Answer:** D. Greenstick fracture

Rationale: A greenstick fracture is a fracture where only one side of the shaft is broken, and the other is bent. It is common in children due to their soft bones. The greenstick fracture is named due to the analogy of breaking a young tree branch where the outer side breaks and the inner side bends.

2. **Answer:** B. Pelvic Girdle

Rationale: The axial skeleton includes the skull, hyoid and cervical spine, ribs, vertebrae, and sacrum. The appendicular skeleton includes the shoulder girdle, pelvic girdle, and extremities.

3. **Answer:** A. Metacarpals

Rationale: Long bones are named for their shape, not their size. Metacarpals are long bones found in the hand that form the skeletal structure of the palm.

4. **Answer:** C. Synovial

Rationale: Most joints in the body are synovial joints. All joints in the extremities are synovial joints. Synovial joints allow for smooth motion within the joint.

5. **Answer:** A. Arthr/o

Rationale: The root Arthr/o stands for joint. You will notice in the list of medical terms related to the musculoskeletal system, all of the words beginning with “arthr” are conditions or procedures related to the joint.

Section Review 2.4

1. **Answer:** C. Inferior and Superior Vena Cava

Rationale: Deoxygenated blood enters the right atrium through the superior vena cava and inferior vena cava.

2. **Answer:** B. Left and right pulmonary veins

Rationale: Blood is circulated through the pulmonary vascular tree in the lungs and sent back into the left atrium through the left and right pulmonary veins.

3. **Answer:** C. Angiocarditis

Rationale: The root angi/o means vessel, the root cardi/o means heart, and the suffix -itis means inflammation. Angiocarditis is inflammation of the heart and vessels.

4. **Answer:** D. Endocardium

Rationale: The prefix endo- means inner. The root cardi/o means heart. The endocardium is the inner lining of the heart.

5. **Answer:** B. Oxygen deficiency

Rationale: Cyanosis is bluing of the skin and mucous membranes caused by oxygen deficiency.

Section Review 2.5

1. **Answer:** C. With a system of one-way valves

Rationale: The lymphatic system operates without a pump by using a series of valves to ensure the fluid travels in one direction to the heart.

2. **Answer:** B. Phagocytes

Rationale: Lymphoid organs scattered throughout the body house phagocytic cells and lymphocytes, which are essential to the body's defense system.

3. **Answer:** D. Splenectomy

Rationale: Splen- is the root for spleen. The suffix -ectomy is surgical removal of. A splenectomy is removal of the spleen, total or partial. If only part of the spleen is removed from a patient under 12 years of age, it can regenerate.

4. **Answer:** B. Subclavian veins

Rationale: Both of the lymphatic ducts empty their contents into the subclavian veins. The right lymphatic duct empties into the right subclavian vein and the thoracic duct empties into the left subclavian vein.

5. **Answer:** B. Lymphangitis

Rationale: Lymphangitis is inflammation of lymphatic vessels as a result of bacterial infection. It appears as painful red streaks under the skin.

Section Review 2.6

1. **Answer:** D. At the bifurcation of the trachea into two bronchi

Rationale: At the last cartilage of the trachea, there is a spar of cartilage projecting posteriorly from its inner face, marking the point where the trachea branches into the two main bronchi. This cartilage projection is the carina.

2. **Answer:** B. Nose

Rationale: The nose is responsible for providing an airway to breathe, moistening, warming, and filtering inspired air, serving as a resonating chamber for speech, and housing the smell receptors.

3. **Answer:** B. Incision into the chest wall

Rationale: The root thorac/o means chest. The suffix -otomy means cutting into. Thoracotomy is making an incision into the chest wall.

4. **Answer:** C. Alveoli and capillaries

Rationale: Gases are exchanged across the single cell layer of tissue comprising the alveolar sac into the pulmonary circulation. Capillaries from the pulmonary circulation are also a single cell layer thick. They form a bed around each alveoli; gas is exchanged between the alveoli and the capillaries via the principles of diffusion.

5. **Answer:** B. -pnea

Rationale: The suffix -pnea means breathing. You can derive this from the *Medical Terms Related to the Respiratory System* section. Each definition relating to breathing is for a word ending in -pnea.

Section Review 2.7

1. **Answer:** A. Duodenum

Rationale: The first portion of the small intestine is the duodenum, the second portion is the jejunum, and the distal portion is the ileum.

2. **Answer:** C. Liver

Rationale: The gallbladder stores bile produced in the liver. Bile secreted into the intestines from the gallbladder helps the body digest fats.

3. **Answer:** B. Transverse colon

Rationale: The ascending colon proceeds from the ileocecal valve upward to the hepatic flexure, becomes the transverse colon, and then turns downward to become the descending colon at the splenic flexure.

4. **Answer:** A. Buccal

Rationale: Bucca means cheek. Buccal is relating to the cheek. Buccal swabs can be used for DNA testing.

5. **Answer:** D. Peristalsis

Rationale: Wave like contractions called peristalsis move food through the digestive tract.

Section Review 2.8

1. **Answer:** B. Urethra

Rationale: The male and female urethras are quite different anatomically in position and length; however, they perform the same function with regard to urine, and are treated similarly for many surgical procedures in the coding genre.

2. **Answer:** A. Excretion of metabolic wastes, and fluid and electrolyte balance

Rationale: The production of urine for the excretion of metabolic wastes along with fluid and electrolyte balance is the main function of the urinary system. This system also provides transportation and temporary storage of urine prior to the intermittent process of urination.

3. **Answer:** C. Cowper's glands

Rationale: Internal organs of the male genital system include the prostate gland, seminal vesicles, and Cowper's glands. Cowper's gland is also called the bulbourethral gland. It is a small gland secreting part of the seminal fluid.

4. **Answer:** B. Epispadias

Rationale: Epispadias is a congenital defect in which the urethra opens on the dorsum of the penis. Hypospadias is a congenital defect in which the urethra opens on the underside of the penis. (epi=on, over, hypo= under, below.)

5. **Answer:** D. Either side of the introitus in the female

Rationale: Bartholin's glands are found on either side of the introitus (external opening to the vagina).

Section Review 2.9

1. **Answer:** C. Central Nervous System

Rationale: The brain and spinal cord are the components of the central nervous system (CNS). The Somatic Nervous System and the Autonomic Nervous System are the two divisions of the Peripheral Nervous System.

2. **Answer:** B. Choroid

Rationale: The eyeball has three layers: the retina (innermost), choroid (middle), and sclera (outermost).

3. **Answer:** D. Vitreous humor

Rationale: A clear gel-like substance filling the posterior segment of the eye is called the vitreous and prevents the eyeball from collapsing.

4. **Answer:** B. Labyrinth

Rationale: The ear has three distinct and separate anatomical divisions: the outer ear (external ear), middle ear (tympanic cavity), and inner ear (labyrinth).

5. **Answer:** B. Otopyorrhea

Rationale: Otopyorrhea is pus draining from the ear.

Section Review 2.10

1. **Answer:** D. Thyroid gland

Rationale: The thyroid gland regulates metabolism and serum calcium levels through the secretion of thyroid hormone and calcitonin.

2. **Answer:** B. Carotid body

Rationale: The carotid body is not a true endocrine structure, but is made of both glandular and nonglandular tissue.

3. **Answer:** C. Thymus gland

Rationale: The thymus gland does much of its work in early childhood and is largest shortly after birth. By puberty, it is small and may be replaced by fat.

4. **Answer:** B. Pituitary gland

Rationale: The pituitary gland is also known as the hypophysis cerebri.

5. **Answer:** A. Adrenal glands

Rationale: The adrenal glands have two separate structural parts; the inner portion is the medulla and the outer portion is the cortex. Each structure performs a separate function.

Section Review 2.11

1. **Answer:** A. Erythrocytes

Rationale: Erythrocyte disorders include anemia (a deficiency in the amount of hemoglobin in the blood) and polycythemia (any condition in which there is a relative increase in the percent of red blood cells in whole blood).

2. **Answer:** B. Lymphocytes

Rationale: Lymphocytes are involved in protection of the body from viral infections such as measles, rubella, chicken pox, or infectious mononucleosis.

3. **Answer:** C. Monocytes

Rationale: Monocytes fight severe infections and are considered the body's second line of defense against infection.

4. **Answer:** D. Eosinophils

Rationale: The body uses eosinophils to protect against allergic reactions and parasites; elevated levels may indicate an allergic response.

5. **Answer:** C. Mononucleosis

Rationale: Mononucleosis is a disease of excessive mononuclear leukocytes in the blood due to an infection with the Epstein-Barr virus.
