ANATOMY FLASHCARDS - CHAPTER 1

The Language of Anatomy

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
1-01 **What is anatomical position?**	Standing upright, facing forward, arms at the sides, palms forward, and feet directed forward.
1-02 **What does superior mean?**	Toward the head or above another structure. The chest is superior to the abdomen.
1-03 **What does inferior mean?**	Toward the feet or below another structure. The stomach is inferior to the heart.
1-04 **What does anterior mean?**	Toward the front of the body. The sternum is anterior to the heart.
1-05 **What does posterior mean?**	Toward the back of the body. The vertebral column is posterior to the sternum.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 1, pp. 4-5.

Supplementary reference: OpenStax, Anatomy and Physiology 2e (openstax.org). Original review wording.

Study aid for anatomy review. Course chapter numbers follow your Anatomy for Coders guide.

ANATOMY FLASHCARDS - CHAPTER 1

The Language of Anatomy

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
1-06 **What does medial mean?**	Toward the body's midline. The nose is medial to the eyes.
1-07 **What does lateral mean?**	Away from the midline. The ears are lateral to the nose.
1-08 **What does proximal mean?**	Closer to a limb's attachment or a structure's origin. The elbow is proximal to the wrist.
1-09 **What does distal mean?**	Farther from a limb's attachment or a structure's origin. The fingers are distal to the wrist.
1-10 **What does superficial mean?**	Closer to the body surface. Skin is superficial to skeletal muscle.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 1, pp. 4-5.

Supplementary reference: OpenStax, Anatomy and Physiology 2e (openstax.org). Original review wording.

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ANATOMY FLASHCARDS - CHAPTER 1

The Language of Anatomy

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
1-11 **What does deep mean?**	Farther from the body surface. Bone is deep to the skin.
1-12 **What does a sagittal plane divide?**	The body into right and left portions. A midsagittal plane divides it into equal right and left halves.
1-13 **What does a coronal plane divide?**	The body into anterior and posterior portions. Coronal is also called frontal.
1-14 **What does a transverse plane divide?**	The body into superior and inferior portions. It is also called a horizontal plane.
1-15 **What is laterality?**	The side involved: right, left, or both sides. Use the patient's side, not the observer's.

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ANATOMY FLASHCARDS - CHAPTER 1

The Language of Anatomy

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QUESTION / TERM	ANSWER / EXPLANATION
1-16 **Unilateral versus bilateral?**	Unilateral means one side. Bilateral means both sides.
1-17 **What is in the thoracic cavity?**	The lungs and mediastinum, which contains the heart and other structures. The diaphragm separates it from the abdominal cavity.
1-18 **Abdominal versus pelvic cavity?**	The abdominal cavity contains organs such as the liver, stomach, and intestines. The pelvic cavity contains structures such as the urinary bladder and internal reproductive organs.
1-19 **What do RUQ, LUQ, RLQ, and LLQ mean?**	Right upper, left upper, right lower, and left lower abdominal quadrants. Right and left refer to the patient.
1-20 **Case: What does distal right radius tell you?**	Bone: radius. Segment: near the wrist. Side: right. Distal does not simply mean far from the whole body.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 1, pp. 4-5.

Supplementary reference: OpenStax, Anatomy and Physiology 2e (openstax.org). Original review wording.

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ANATOMY FLASHCARDS - CHAPTER 2

Cells, Tissues and Body Organization

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
2-01 **What is a cell?**	The smallest living structural and functional unit of the body.
2-02 **What is the plasma membrane?**	The cell's boundary. It helps regulate what enters and leaves the cell.
2-03 **What is the nucleus?**	A cell structure that contains most of the cell's DNA and helps regulate cell activities.
2-04 **What is cytoplasm?**	The material between the plasma membrane and nucleus, including cytosol and organelles.
2-05 **What do mitochondria do?**	Produce much of the ATP that cells use to support their activities.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 2, pp. 6-7.

Supplementary reference: OpenStax, Anatomy and Physiology 2e (openstax.org). Original review wording.

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ANATOMY FLASHCARDS - CHAPTER 2

Cells, Tissues and Body Organization

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
2-06 **What is a tissue?**	A group of cells and associated material organized to perform related functions.
2-07 **What are the four primary tissue types?**	Epithelial, connective, muscle, and nervous tissue.
2-08 **What does epithelial tissue do?**	Covers surfaces, lines cavities and passageways, and forms glands. It can protect, absorb, or secrete.
2-09 **What does connective tissue do?**	Supports, binds, protects, stores energy, or transports substances. Examples include bone, cartilage, fat, and blood.
2-10 **What does muscle tissue do?**	Contracts to produce movement. The three types are skeletal, cardiac, and smooth muscle.

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ANATOMY FLASHCARDS - CHAPTER 2

Cells, Tissues and Body Organization

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
2-11 **What does nervous tissue do?**	Detects and communicates information. It includes neurons and supporting cells.
2-12 **Why is blood connective tissue?**	Its cells are suspended in a fluid extracellular matrix called plasma.
2-13 **What is adipose tissue?**	Connective tissue that stores fat and provides cushioning, insulation, and energy reserves.
2-14 **What is extracellular matrix?**	Material outside cells, such as fibers and ground substance, that helps support and organize tissues.
2-15 **What is an organ?**	A structure made of two or more tissue types working together. The heart is an example.

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ANATOMY FLASHCARDS - CHAPTER 2

Cells, Tissues and Body Organization

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
2-16 **What is an organ system?**	A group of organs that work together to perform major body functions.
2-17 **What is the order of body organization?**	Cell, tissue, organ, organ system, organism. Chemical components exist below the cellular level.
2-18 **Skeletal, cardiac, and smooth muscle: where?**	Skeletal muscle moves the skeleton. Cardiac muscle forms the heart's muscular wall. Smooth muscle occurs in walls of hollow organs and vessels.
2-19 **What is histology?**	The study of tissues, especially their microscopic structure.
2-20 **What does a pathology report help identify?**	Tissue characteristics and findings such as tissue origin and lesion behavior. Apply the documentation rules for the coding setting before assigning a diagnosis.

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ANATOMY FLASHCARDS - CHAPTER 3

Integumentary System

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
3-01 **What makes up the integumentary system?**	Skin and accessory structures, including hair, nails, sweat glands, and sebaceous glands.
3-02 **What are the skin's two main layers?**	The epidermis and dermis. The hypodermis lies underneath and is not part of the skin proper.
3-03 **What is the epidermis?**	The outer epithelial layer of the skin. It does not contain blood vessels.
3-04 **What is the dermis?**	The connective-tissue layer beneath the epidermis. It contains vessels, nerves, glands, and hair follicles.
3-05 **What is the hypodermis?**	Subcutaneous tissue beneath the dermis, rich in connective and adipose tissue.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 3, pp. 8-9.

Supplementary reference: OpenStax, Anatomy and Physiology 2e (openstax.org). Original review wording.

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ANATOMY FLASHCARDS - CHAPTER 3

Integumentary System

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
3-06 **What is keratin?**	A tough structural protein that helps protect skin and contributes to the structure of hair and nails.
3-07 **What is melanin?**	Pigment made by melanocytes that contributes to skin color and helps protect against ultraviolet radiation.
3-08 **What do sebaceous glands produce?**	Sebum, an oily substance that helps lubricate the skin and hair.
3-09 **What do sweat glands do?**	Produce sweat. Evaporation of sweat helps cool the body.
3-10 **What is a macule?**	A flat, circumscribed change in skin color that is not elevated or depressed.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 3, pp. 8-9.

Supplementary reference: OpenStax, Anatomy and Physiology 2e (openstax.org). Original review wording.

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ANATOMY FLASHCARDS - CHAPTER 3

Integumentary System

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
3-11 **What is a papule?**	A small, raised, solid skin lesion.
3-12 **What is a vesicle?**	A small, fluid-filled blister.
3-13 **What is a pustule?**	A raised skin lesion containing pus.
3-14 **What is an ulcer?**	An open defect involving loss of surface tissue. Documentation should identify its location, type, and depth or stage when applicable.
3-15 **What is a laceration?**	A tear or cut in tissue. The record should identify site, size, depth, and other relevant wound details.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 3, pp. 8-9.

Supplementary reference: OpenStax, Anatomy and Physiology 2e (openstax.org). Original review wording.

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ANATOMY FLASHCARDS - CHAPTER 3

Integumentary System

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
3-16 **Biopsy versus excision?**	A biopsy obtains tissue for diagnosis and may sample part or all of a lesion. Excision removes tissue or a lesion. Coding depends on the documented procedure and intent.
3-17 **What is debridement?**	Removal of devitalized, contaminated, or otherwise unwanted tissue from a wound. Record the tissue actually removed.
3-18 **Which tissue depth matters in debridement?**	The deepest tissue actually removed, rather than tissue that is only visible or exposed.
3-19 **Why can you not assume lesion behavior?**	Appearance alone does not establish whether a lesion is benign or malignant. Use the documented diagnosis and applicable pathology information.
3-20 **What details matter in a skin procedure note?**	Site, lesion number and measurements, tissue depth, procedure performed, and pathology or behavior. Repair details may also matter.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 3, pp. 8-9.

Supplementary reference: OpenStax, Anatomy and Physiology 2e (openstax.org). Original review wording.

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ANATOMY FLASHCARDS - CHAPTER 4

Musculoskeletal System

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
4-01 **What structures make up this system?**	Bones, joints, skeletal muscles, cartilage, tendons, and ligaments.
4-02 **What is the axial skeleton?**	The skull, vertebral column, and thoracic cage, including ribs and sternum.
4-03 **What is the appendicular skeleton?**	The upper and lower limbs and the shoulder and pelvic girdles that attach them to the axial skeleton.
4-04 **What does a tendon connect?**	Usually muscle to bone. Tendons transmit muscle force to help move a joint.
4-05 **What does a ligament connect?**	Usually bone to bone. Ligaments help stabilize joints.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 4, pp. 10-11.

Supplementary reference: OpenStax, Anatomy and Physiology 2e (openstax.org). Original review wording.

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ANATOMY FLASHCARDS - CHAPTER 4

Musculoskeletal System

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
4-06 **What is cartilage?**	Supportive connective tissue that provides flexible support. Articular cartilage covers bone ends at many joints.
4-07 **What is a joint?**	A location where two or more bones meet. Joints differ in structure and the amount of movement they allow.
4-08 **What is a bursa?**	A small fluid-filled sac that reduces friction between moving tissues near a joint.
4-09 **What is the synovial membrane?**	The lining of a synovial joint capsule that produces fluid to lubricate and nourish the joint.
4-10 **Flexion versus extension?**	Flexion generally decreases the angle at a joint. Extension generally increases it.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 4, pp. 10-11.

Supplementary reference: OpenStax, Anatomy and Physiology 2e (openstax.org). Original review wording.

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ANATOMY FLASHCARDS - CHAPTER 4

Musculoskeletal System

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
4-11 **Abduction versus adduction?**	Abduction moves away from the midline. Adduction moves toward it.
4-12 **What are the diaphysis and epiphysis?**	The diaphysis is a long bone's shaft. The epiphysis is an end of a long bone.
4-13 **What is the periosteum?**	A connective-tissue membrane covering the outer surface of bone, except at articular surfaces.
4-14 **Radius versus ulna?**	In anatomical position, the radius lies on the thumb side of the forearm. The ulna lies on the little-finger side.
4-15 **Tibia versus fibula?**	The tibia is the larger, medial lower-leg bone. The fibula is the thinner, lateral bone.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 4, pp. 10-11.

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ANATOMY FLASHCARDS - CHAPTER 4

Musculoskeletal System

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
4-16 **Sprain versus strain?**	A sprain injures a ligament. A strain injures muscle or tendon.
4-17 **Open versus closed fracture?**	An open fracture communicates with the outside through a wound. In a closed fracture, no such communication exists.
4-18 **Displaced versus nondisplaced fracture?**	Displaced fracture fragments are out of normal alignment. Nondisplaced fragments retain alignment.
4-19 **What belongs in a fracture checklist?**	Bone, segment or site, side, displacement, open/closed status, treatment phase, and healing details when applicable.
4-20 **Case: Is ankle fracture enough detail?**	Usually more detail is needed: which bone, exact site, laterality, and other fracture characteristics. Review the record and clarify missing details as appropriate.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 4, pp. 10-11.

Supplementary reference: OpenStax, Anatomy and Physiology 2e (openstax.org). Original review wording.

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ANATOMY FLASHCARDS - CHAPTER 5

Cardiovascular and Blood Systems

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
5-01 **What are the four heart chambers?**	Right atrium, right ventricle, left atrium, and left ventricle.
5-02 **What does the right atrium receive?**	Blood returning from the body through the venae cavae, plus blood returning from the heart muscle through the coronary sinus.
5-03 **What does the right ventricle pump?**	Blood into the pulmonary trunk and pulmonary arteries, which carry it toward the lungs.
5-04 **What does the left atrium receive?**	Oxygenated blood returning from the lungs through the pulmonary veins.
5-05 **What does the left ventricle pump?**	Blood into the aorta for systemic circulation. It has the thickest ventricular wall.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 5, pp. 12-13.

Supplementary reference: OpenStax, Anatomy and Physiology 2e (openstax.org). Original review wording.

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ANATOMY FLASHCARDS - CHAPTER 5

Cardiovascular and Blood Systems

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
5-06 **Which valve is between the right atrium and ventricle?**	The tricuspid valve.
5-07 **Which valve is between the left atrium and ventricle?**	The mitral valve, also called the bicuspid valve.
5-08 **Where are the pulmonary and aortic valves?**	The pulmonary valve is at the right ventricular outflow. The aortic valve is at the left ventricular outflow.
5-09 **Artery versus vein?**	An artery carries blood away from the heart. A vein carries blood toward the heart. Direction defines the vessel type.
5-10 **What are capillaries?**	Tiny vessels where gases, nutrients, and wastes move between blood and surrounding tissues.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 5, pp. 12-13.

Supplementary reference: OpenStax, Anatomy and Physiology 2e (openstax.org). Original review wording.

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ANATOMY FLASHCARDS - CHAPTER 5

Cardiovascular and Blood Systems

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
5-11 **What is pulmonary circulation?**	The pathway from the right ventricle to the lungs and back to the left atrium.
5-12 **What is systemic circulation?**	The pathway from the left ventricle to body tissues and back to the right atrium.
5-13 **What is unusual about pulmonary arteries and veins?**	Pulmonary arteries carry relatively deoxygenated blood. Pulmonary veins carry oxygenated blood.
5-14 **Trace blood through the heart and lungs.**	Body, right atrium, tricuspid valve, right ventricle, pulmonary valve, pulmonary arteries, lungs, pulmonary veins, left atrium, mitral valve, left ventricle, aortic valve, aorta.
5-15 **What do coronary arteries supply?**	The heart muscle itself. They arise from the aortic root.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 5, pp. 12-13.

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ANATOMY FLASHCARDS - CHAPTER 5

Cardiovascular and Blood Systems

Corrina R. Lynch | Cover the answer to practice. Cut on horizontal lines; fold at the center line.

QUESTION / TERM	ANSWER / EXPLANATION
5-16 **What are erythrocytes?**	Red blood cells. Hemoglobin within them carries most oxygen transported in the blood.
5-17 **What are leukocytes?**	White blood cells that participate in immune defense.
5-18 **What are platelets?**	Cell fragments that help form a platelet plug and support blood clotting.
5-19 **What is plasma?**	The liquid portion of blood, containing water, proteins, electrolytes, and dissolved substances.
5-20 **Thrombus versus embolus?**	A thrombus forms within a vessel or the heart. An embolus is material traveling through blood that may lodge elsewhere; a clot fragment is one example.

Source alignment: Anatomy for Coders Instructor Guide, Chapter 5, pp. 12-13.

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