

# ANATOMY TERMINOLOGY

Terms match labels for system illustrations on the QuickStudy® Anatomy guide

## **TERM ABBREVIATIONS**

a. = artery a.a. = arteries

#### **SKELETAL SYSTEM**

**Bold italic** = bone features

acetabulum (socket): Bowl-like cavity on hip bone

**acromion:** Continuation of spine of shoulder blade

anterior superior iliac spine: Sharp projection at anterior end of iliac crest

bicipital groove: Groove through which biceps brachii tendon runs calcaneus: Heel bone

**capitulum:** Rounded projection on lower end of humerus

carpals: Cluster of wrist bones

- 1. **scaphoid:** Largest proximal wrist bone
- 2. lunate: Crescent-shaped proximal wrist bone3. triquetral: Pyramidal, ulnar-side
- proximal wrist bone
- 4. **pisiform:** Small, pea-shaped wrist bone
- 5. trapezium: Distal wrist bone between scaphoid, 1st metacarpal6. trapezoid: Smallest bone in distal row
- 7. **capitate:** Largest wrist bone
- 8. **hamate:** Wedge-shaped wrist bone

**cervical vertebrae (I–VII):** 7 vertebrae of the neck

clavicle: Collarbone coccyx: Tailbone

coracoid process: Beak-shaped projection on shoulder blade

**coronoid process:** Projection on upper end of ulna

costal cartilage: Cartilage of the

ribs, sternum cuboid: Large, outermost distal

tarsal bone cuneiforms: 3 wedge-shaped tarsal

bones

descending ramus of pubis: Thin,

flat layer portion of pubis have

flat lower portion of pubic bone femur: Thigh bone fibula: Calf bone

frontal: Forehead bone greater trochanter: Pro

greater trochanter: Projection on the upper, outer end of the thigh bone greater tubercle: Small projection on

the upper, outer end of the humerus **head of femur:** Highest part of the thigh bone

humerus: Longest bone of upper arm

**hyoid:** U-shaped bone at base of tongue

iliac crest: Upper margin of the ilium

**ilium:** Uppermost, largest pelvic bone

ischial spine: Projection on back of lower hip bone

ischium: Lower, back part of hip

lateral condyle of femur: Projection on lower, outer part of thigh bone

lateral condyle of tibia:
Projection on upper, outer part of shinbone

lateral epicondyle of femur:
Projection above lateral condyle of femur

lateral epicondyle of humerus: Projection on lower, outer part of humerus

**lateral malleolus:** Lower part of the fibula at the ankle

ex. = extensor fl. = flexor

the thigh bone

the lower back

breastbone

humerus

humerus

below the ischial spine

mandible: Lower jawbone

maxilla: Upper jawbone

lesser sciatic notch: Small notch

lesser trochanter: Small projection of

lesser tubercle: Small projection

lumbar vertebrae (I-V): 5 vertebrae of

manubrium: Uppermost part of the

medial condyle of femur: Projection

medial condyle of tibia: Projection on

medial epicondyle of femur: Projection

medial epicondyle of humerus:

medial malleolus: Pyramid-shaped

medial sacral crest: Jagged, bony

metacarpals: 5 bones of hand between

metatarsals: 5 bones of foot between

navicular: Hollow, boat-shaped tarsal

neck of femur: Narrow process

obturator foramen: Opening between

occipital: Cranial bone forming lower

olecranon: Bony prominence of the

parietal: Cranial bone forming top,

phalanges: Bones of fingers or toes

on posterior margin of ilium

posterior inferior iliac spine: Projection

posterior superior iliac spine: Sharp

pubic symphysis: Middle junction of

pubic tubercle: Rounded projection of

ribs: 12 pairs of bones forming the

sacroiliac ioint: Joint between sacrum.

sacrum: Triangular bone of 5 fused

spine of scapula: Ridge of bone on

temporal: Bone at sides of skull; has 4

parts: squamous, petrous, tympanic,

thoracic vertebrae (I-XII): 12 vertebrae

trochlea: Pulley between humerus,

tuberosity: Rounded projection on

ulna: Little-finger-side forearm bone

xiphoid process: Small, sword-shaped

projection of cartilage at lowest part

radius: Thumb-side forearm bone

projection at posterior end of iliac

connecting parts of the thigh bone

ridge on upper surface of sacrum

Projection on lower, inner part of

on lower, inner part of thigh bone

upper, inner part of shinbone

part of tibia at the ankle

wrist, finger bones

ischium, pubis bones

posterior part of skull

ankle, toe bones

bone

elbow

crest

chest

ilium

vertebrae

pubic bones

bone on pubic crest

scapula: Shoulder blade

shoulder blade

talus: Anklebone

mastoid process

inner side of radius

tibia: Shinbone

of sternum **zygomatic:** Cheekbone

ulna

that connect with the ribs

sternum: Breastbone

pubis: Pubic bone

sides of skull

patella: Kneecap

above medial condyle of femur

on the upper anterior end of the

L. = Left l.i. = large intestine 1. = ligament 1.1. = ligaments m. = muscle m.m. = muscles n. = nerve n.n. = nerves R. = Right s.i. = small intestine

v. = vein v.v. = veins

VERTEBRAL COLUMN

atlas vertebra: 1st cervical vertebra

auricular surface (for ilium): Ear-shaped surface of upper pelvic bone

axis vertebra: 2nd cervical vertebra, around which atlas rotates

**body:** Weight-supporting portion of vertebrae **cervical vertebrae (I–VII):** 7 vertebrae of the neck **coccyx (coccygeal vertebrae):** Tailbone; made up of 3–5 fused vertebrae

**costal facet:** Surface of thoracic vertebrae where ribs attach

inferior articulating process: Downwardprojecting bone plate that joins vertebrae intervertebral disc: Fibrous, cartilaginous tissue between vertebral bodies intervertebral foramen: Opening between vertebrae for passage of nerves
lumbar vertebrae (I–V): 5 vertebrae of the lower back

pedicle: Short, bony process on each side of neural arch promontory: Prominence on the sacrum where it joins with the vertebrae

sacrum: Triangular bone of 5 fused vertebrae

**spinous process:** Backward, downward prominence of each vertebra

**superior articulating process:** Upward-projecting bone plate that joins vertebrae

thoracic vertebrae (I–XII): 12 vertebrae that connect with the ribs transverse costal facet: Surface of thoracic vertebrae where ribs

attach

**transverse process:** Bony protrusion on each side of a vertebra **vertebra prominens:** 7th, most prominent cervical vertebra

#### **BONE STRUCTURE**

canaliculi: Hairlike channels connecting lacunae cancellous bone: Mesh-like, spongy bone circumferential lamellae: Lamellae arranged parallel to surface of bone or along marrow cavity

compact bone: Hard, dense bone concentric lamellae: Cylindrical layers surrounding a haversian system

diaphysis: Shaft of long bone

**distal epiphysis:** End of long bone farthest away from center of the body

endosteum: Membrane lining of inner marrow cavity

**epiphyseal lines:** Lines marking areas of longitudinal growth

**epiphysis:** End of a long bone that unites to main bone later through ossification

femur: Thigh bone

fovea capitis: Ligament attachment site

**greater trochanter:** Projection on the upper, outer end of the thigh bone

**head of femur:** Highest part of the thigh bone **inner layer:** Interior layer of periosteum

interstitial lamellae: Bony plates filling space between haversian systems

lacunae: Small spaces occupied by osteocytes

lateral condyle of femur: Projection on lower, outer part of thigh bone

lateral epicondyle of femur: Projection above lateral condyle of femur

medullary cavity: Marrow-filled space within bone

**neck of femur:** Narrow process connecting parts of the thigh bone

**nutrient a.:** Vessel supplying medullary cavity of bone **nutrient foramen:** Opening for passage of blood vessels **osteon (haversian system):** Structural unit of compact bone **outer layer:** Exterior layer of periosteum

patellar groove: Smooth depression on lower end of thigh

**perforating (Sharpey's) fibers:** Strong connective fibers of the periosteum

**periosteum:** Fibrous membrane that covers bones

**proximal epiphysis:** End of long bone closest to center of the body

**proximal secondary epiphysis:** Epiphysis at secondary ossification center

trabeculae: Porous bony tissue

vein: Vessel that carries blood toward heart

Volkmann's canal (perforating holes): Small channels connecting haversian canals, periosteum yellow marrow: Connective tissue containing mostly fat cells

/ellow marrow: Connective tissue containing mostly lat cells

#### **SKULL**

bones

**Bold italic** = bone features

acoustic (external auditory) meatus: Passageway of external ear to eardrum

**coronal suture:** Junction of parietal, frontal bones **ethmoid:** Spongy bone above nose between orbits **frontal:** Forehead bone

infraorbital foramen: Opening for infraorbital nerve, artery passage

lacrimal: Thin bone of each orbit's inner wall lambdoid suture: Junction of parietal, occipital

mandible: Lower jawbone

**mastoid process:** Cone-shaped projection of bone behind ear

maxilla: Upper jawbone

**mental foramen:** Opening on lower jawbone for passage of mental nerve, vessels

**nasal:** 2 small, oblong bones forming bridge of the nose

nasal conchae: Scroll-like bones of the nasal cavity occipital: Cranial bone forming lower posterior part of skull

parietal: Cranial bone forming top, sides of skull squamous suture: Junction of temporal, parietal bones

**styloid process:** Projection of the temporal bone **supraorbital foramen:** Opening above eye socket for supraorbital nerve, artery passage

**temporal:** Bone at sides of skull; has 4 parts: squamous, petrous, tympanic, mastoid process **vomer:** Plow-shaped bone of nasal septum **wing of sphenoid:** Winglike expansion of sphenoid

bone **zygomatic:** Cheekbone **zygomatic arch:** Arch of cheekbone

# VERTEBRAE & NERVE STRUCTURE

accessory process: Projection of transverse process arachnoid matter: Thin membrane between dura, pia mater

**body:** Weight-supporting portion of vertebrae **dorsal root:** Spinal nerve root consisting of sensory fibers

dura mater: Fibrous connective tissue surrounding spinal cord
gray and white rami communicantes: Branches of nerve fibers
gray matter: Nerve tissue
inferior articular facet: Smooth area on inferior process

inferior articular process: Downward-projecting bone plate that joins vertebrae

intervertebral disc: Fibrous, cartilaginous tissue between vertebral bodies

lamina: Flattened part of vertebral arch

mammillary process: Projection of vertebral bone motor n. fibers: Nerve fibers that transmit impulses

n. fibers: Elongated processes of nerve cells pedicle: Short, bony process on each side of neural arch

pia mater: Thin membrane surrounding spinal cord sensory ganglion: Mass of nerve cell bodies

spinous process: Backward, downward prominence of each vertebra

superior articular facet: Smooth area on superior process superior articular process: Upward-projecting bone plate that joins vertebrae

superior vertebral notch: Concave narrowing on upper surface of vertebrae

sympathetic ganglion: Mass of nerve cell bodies

sympathetic trunk: Cord of ganglia alongside spinal column synapse: Junction between nerve cells across which nerve impulses pass

transverse process: Bony protrusion on each side of a vertebra ventral root: Spinal nerve root consisting of motor fibers vertebral body (centrum): Weight-supporting portion of vertebrae vertebral foramen: Opening for passage of spinal cord white matter (motor, sensory): Nerve tissue

#### LYMPHATIC NETWORK

axillary lymph nodes: Lymph nodes of the armpit brachiocephalic v.: Upper chest vein; formed by union of subclavian, internal jugular veins cervical lymph nodes: Lymph nodes of the neck cisterna chyli: Dilated sacs marking start of thoracic

duct common iliac nodes: Lymph nodes of the common

iliac artery **cubital lymph nodes:** Lymph nodes at the elbow

inguinal lymph nodes: Lymph nodes of the groin intercostal nodes: Lymph nodes of the ribs intestinal nodes: Lymph nodes of the intestine

L. thoracic duct: Lymphatic vessel that collects,

lymphatic vessels: Thin vessels that transport lymph palmar plexus: Nerve network of the hand

para-aortic nodes: Lymph nodes near the aorta, in lumbar region

parotid lymph nodes: Lymph nodes of the parotid gland

plantar vessels: Nerve vessels of the foot

popliteal lymph nodes: Lymph nodes of the knee **R.** lymphatic duct: Lymphatic vessel that collects, drains lymph

superficial lymph vessels: Vessels in subcutaneous tissue

#### **RESPIRATORY SYSTEM**

auditory (eustachian) tube: Tube linking middle ear, nasopharynx; equalizes pressure on sides of tympanic membrane

bronchioles: Subdivisions of bronchial tubes cardiac notch: Concavity of left lung

diaphragm: Dome-shaped muscle separating abdominal chest cavities

glottis: The vocal cords, the space between them

larvnx: Voice box

lobule: Bronchiole, its branches

nasal cavity: Hollow space between floor of cranium, roof of mouth

oral cavity: Part of mouth behind gums, teeth pharynx: Passageway for air, food; participates in

speech pleura: 2-walled membrane that protects the lungs primary bronchi: Main airway passages of the trachea

R. lung: Respiratory organ

secondary bronchi: Secondary airway passages; further divisions of primary bronchi

superior, middle & inferior conchae: Scroll-like bones of the nasal cavity

tongue: Movable organ on floor of mouth; aids in taste, speech, swallowing

trachea: Windpipe

vocal fold (cord): True vocal cord

#### **NERVOUS SYSTEM**

axillary n.: Armpit nerve

brachial plexus: Complex network of 4 cervical nerves, 1st thoracic nerve

cauda equina: Terminal point of spinal nerves, cord cerebellum: Part of the brain concerned with muscle coordination, bodily equilibrium maintenance cerebrum: Brain

cervical plexus: Complex network of 4 cervical nerves

digital n.n.: Nerves of toes

femoral n.: Large nerve that supplies muscles of the thigh

gluteal n.n.: Nerves of gluteal region

iliohypogastric n.: Upper branch of 1st lumbar nerve ilioinguinal n.: Lower branch of 1st lumbar nerve intercostal n.n.: Anterior branches of 11 thoracic

nerves lumbar plexus: Major nerve network of lumbar region

median n.: Nerve running along middle of arm peroneal branch of sciatic n.: Terminal branch of sciatic nerve

pudendal n.: Nerve of pelvic region radial n.: Nerve of upper arm

sacral plexus: Major nerve network of sacrum

saphenous n.: Largest, longest branch of femoral nerve

sciatic n.: Thickest nerve in body; runs from sacral plexus down back of thigh

spinal cord: Cylindrical column of nerve tissue subcostal n.n.: Anterior branches of 12th thoracic nerve

tibial branch of sciatic n.: Terminal branch of sciatic nerve

ulnar n.: Nerve running along inner side of arm

#### **ENDOCRINE SYSTEM**

adrenal (suprarenal): Endocrine glands atop kidneys; produce hormones ovaries (female): Reproductive glands pancreas: Gland that secretes digestive enzymes, hormones

parathyroids (dorsal): Glands that control calcium, phosphorous levels in blood pineal: Gland that secretes melatonin

pituitary (hypophysis): Master gland; secretes hormones

testes (male): Reproductive glands thymus (in child): Immune system gland; produces T cells

thyroid (ventral): Gland that produces hormones; regulates metabolism

#### **DIGESTIVE SYSTEM & VISCERA**

anus: Rectum outlet

appendix: Small outgrowth from the cecum

ascending colon (I.i.): Right-side portion; runs from cecum to liver

cecum: Pouch at beginning of colon

descending colon (I.i.): Left-side portion; runs below spleen to sigmoid colon duodenum (s.i.): First portion of small

intestine esophagus: Muscular tube through which food travels from the mouth to the

gallbladder: Bile-storing sac of the liver ileum (s.i.): Last portion of small intestine jejunum (s.i.): Middle portion of small

intestine liver: Large, bile-secreting gland oral cavity: Part of mouth behind gums,

pancreas (behind stomach): Gland that secretes digestive enzymes, hormones

parotid gland: Largest salivary gland pharynx: Passageway for air, food; participates in speech

rectum: Terminal end of large intestine sigmoid colon: S-shaped part of colon above rectum

spleen: Lymphatic organ

stomach: Saclike organ; reservoir for food sublingual salivary gland: Small salivary gland below the tongue

submandibular salivary gland: Salivary gland below floor of mouth

tonque: Movable organ on floor of mouth: aids in taste, speech, swallowing trachea: Windpipe

transverse colon (I.i.): Section of colon that lies horizontally across abdominal

#### COLON

teeth

anus: Rectum outlet

ascending colon: Right-side portion; runs from cecum to liver

cecum: Pouch at beginning of colon descending colon: Left-side portion; runs

below spleen to sigmoid colon exterior anal sphincter m.: Circular muscle

that closes anus

free tenia (tenia libera): Muscle bands along large intestine

haustra: Pouches of the colon ileum: Last portion of small intestine

L. colic (splenic) flexure: Bend of colon near spleen

mesocolic tenia: Muscle bands of large intestine

omental tenia: Muscle bands of large intestine

R. colic (hepatic) flexure: Bend of colon near liver

rectosiamoid junction: Junction of rectum. sigmoid colon

rectum: Terminal end of large intestine semilunar folds: Membrane folds of the colon

sigmoid colon: S-shaped part of colon above rectum transverse colon: Section of colon that lies

horizontally across abdominal cavity vermiform appendix: Small outgrowth from the cecum

#### **URINARY SYSTEM**

adrenal glands: Endocrine glands atop kidneys; produce hormones

kidneys: Organs that filter blood, create urine

prostate (male): Gland that secretes

component of seminal fluid ureter: Tubes that carry urine from

kidneys to bladder

urethra: Tube that discharges urine urinary bladder: Sac that holds urine

#### **MALE REPRODUCTIVE SYSTEM**

anus: Rectum outlet

bulbourethral gland (Cowper's): Secretes seminal fluid

corpus cavernosum: Columns of erectile tissue

corpus spongiosum: Erectile tissue surrounding male urethra

ejaculatory duct: Duct that conveys sperm, seminal secretions epididymis: Structure that transports,

stores mature sperm external urethral meatus: External

opening at tip of urethra fat: Tissue serving as energy reserve

glans penis: Expanded end of penis navicular fossa: Dilated portion of urethra

prepuce: Foreskin

prostate gland: Gland that secretes component of seminal fluid

pubis: Pubic bone rectum: Terminal end of large intestine

sacrum: Triangular bone of 5 fused vertebrae scrotum: Sac containing the testes

seminal vesicle: Gland that produces components of semen

sigmoid colon: S-shaped part of colon above rectum

testicular tubules: Channels in which sperm develop

testis: Reproductive gland ureter: Tubes that carry urine from kidnevs to bladder

urethra: Tube that discharges urine urinary bladder: Sac that holds urine vas deferens: Duct that transports sperm

#### **FEMALE REPRODUCTIVE** SYSTEM

anus: Rectum outlet

cervical canal: Spindle-shaped passage through uterus

**cervix:** Lower, narrow portion of uterus clitoris: Small erectile organ coccvx: Tailbone

descending colon: Left-side portion; runs below spleen to sigmoid colon endometrium: Inner membrane lining

uterus fimbria: Fringe of tissue near ovary labia majora: Outer, fatty folds of skin on

sides of vaginal opening labia minora: Thin, inner folds of skin on

sides of vaginal opening levator ani: Thin muscle of inner pelvis

surface myometrium: Smooth muscle layer of uterus wall

ovary: Reproductive gland

pelvic bowl m.m.: Muscles of pelvic floor

pubic bone: Pubis; one of 3 bones of the pelvis

rectum: Terminal end of large intestine sacrum: Triangular bone of 5 fused vertebrae

sigmoid colon: S-shaped part of colon above rectum urethra: Tube that discharges urine

urinary bladder: Sac that holds urine uterine tube: Tubes for passage of eggs from ovaries to uterus uterus: Womb

vagina: Passageway from uterus to exterior

opening: Muscular canal vaginal extending from cervix to exterior

#### **CIRCULATORY SYSTEM**

abdominal aorta: Continuation of aorta; largest

artery in abdominal cavity anterior tibial a.: Artery of leg, ankle, foot

anterior tibial v.: Accompanies anterior tibial artery

aortic arch: Curved part of aorta axillary a.: Artery of armpit

basilic v.: Large vein of upper arm near bicens

**brachial a.:** Main artery of upper arm brachial v.: Accompanies brachial artery

brachiocephalic a.: Artery arising from aortic arch; splits into right carotid, subclavian arties

celiac trunk: Branch of abdominal aorta cephalic v.: Superficial vein of arm cerebral a.: Artery of cerebral cortex

common carotid a.: Supplies head, neck; divides into external, internal confluens sinuum: Union of superior sagittal,

straight, occipital sinuses deep femoral v.: Deep thigh vein

dorsalis pedis a.: Artery of upper foot surface; continuation of anterior tibial artery

external iliac a.: Outer branch of common iliac artery; becomes femoral artery

external iliac v.: Upward continuation of femoral vein

external jugular v.: Superficial vein of face, neck

facial a. & v.: Major artery, vein of face femoral a.: Main artery of thigh; continuation of

external iliac artery femoral v.: Main vein of thigh; continuation of popliteal vein

genicular a.a.: Arteries of the knee genicular v.v.: Veins of the knee

gonadal a.: Paired arteries, one for each gonad great saphenous v.: Vein of leg originating in the

foot: joins femoral vein hepatic portal v.: Drains spleen, gastrointestinal tract into the liver

inferior vena cava: Principal vein of lower body; largest vein in body internal iliac a.: Inner branch of common

iliac artery; supplies pelvic, gluteal regions internal iliac v.: Drains pelvic, gluteal regions

internal jugular v.: Larger superficial vein of face, neck jugular v.: Bilateral; returns blood from head to

heart L. external carotid a.: Outer division of common carotid artery; supplies parts of head

L. internal carotid a.: Inner division of common carotid artery; supplies parts of head L. lateral circumflex a.: Branch of femoral artery

L. middle cerebral a.: Branch of internal carotid artery median v.: Continuation of cephalic vein; often

used for venipuncture palmar a. anastomoses: Coming together of arteries in palm of hand

palmar venous network: Network of veins in palm of hand plantar a. anastomoses: Coming together of

arteries in sole of foot plantar venous network: Network of veins in sole of foot

popliteal a.: Continuation of femoral artery pulmonary a.: Carries blood from right/left

ventricle to corresponding lung radial a.: Smaller branch of brachial artery recurrent tibial a.: Continuation of anterior tibial

artery renal a.: Branch of abdominal aorta that supplies

kidney

colon

renal v.: Short, thick vein of kidney sinus sagittalis superior: Channel allowing blood to drain from upper brain to sinuses

subclavian a.: Artery at base of neck supplying neck, arm

subclavian v.: Vein at base of neck draining neck, arm

superficial temporal a.: Branch of external carotid artery superficial temporal v.: Large vein on each side

of head superior mesenteric a.: Supplies small intestine, cecum, ascending colon, right side of transverse

**QuickStudy** 

superior mesenteric v.: Drains small intestine. cecum, ascending colon, transverse colon

superior vena cava: Principal vein of upper body; 2nd largest vein in body

ulnar a .: Larger branch of brachial artery vertebral a.: Major neck artery

#### **CIRCLE OF WILLIS**

Ring of arteries at base of brain anterior cerebral a.: Artery of cerebral cortex anterior communicating a.: Artery connecting anterior cerebral arteries

anterior inferior cerebral a.: Artery of anterior inferior quarter of cerebellum

ascending frontal a.: Ascending branch of ophthalmic artery

basilar a.: Artery of cerebellum, brainstem

internal acoustic (labyrinthine) a.: Long, thin artery of internal ear

internal carotid a .: Inner division of common carotid artery; supplies parts of head

lenticulostriate a.: Branch of middle cerebral artery middle cerebral a.: Branch of internal carotid artery middle temporal a.: Branch of superficial temporal

ophthalmic a.: Branch of internal carotid artery; supplies eye

posterior cerebral a.: Artery of temporal, occipital lobes

posterior communicating a.: Artery connecting internal carotid artery, posterior cerebral arteries superior cerebellar a.: Artery that supplies superior cerebellum, midbrain, pineal gland, portion of 3rd

vertebral a.: Major neck artery

#### **BLOOD CIRCUITS**

aortic arch (arch of aorta): Curved part of aorta arteries: Vessels that carry blood from heart capillaries: Tiny, network-forming vessels celiac a.: First major branch of abdominal aorta descending abdominal aorta: Abdominal-supplying division of descending aorta

descending thoracic aorta: Chest-supplying division of descending aorta

femoral a.: Main artery of thigh; continuation of external iliac artery

femoral v.: Main vein of thigh; continuation of popliteal vein

gastric a.: Branch of celiac artery to upper stomach qastric aorta: Portion of aorta in abdominal cavity hepatic a.: Branch of celiac artery to liver

hepatic portal v.: Drains spleen, gastrointestinal tract into the liver

inferior mesenteric a.: Supplies left side of transverse colon, descending colon, sigmoid colon,

inferior vena cava: Principal vein of lower body; largest vein in body

internal iliac a.: Inner branch of common iliac artery; supplies pelvic, gluteal regions

internal iliac v.: Drains pelvic, gluteal regions kidneys: Organs that filter blood, create urine

L. atrium: Upper heart chamber

L. pulmonary a.: Carries blood from right ventricle to left lung

L. pulmonary v.v.: Carry blood from left lung to left atrium

L. ventricle: Lower heart chamber

portal circulation: Blood flow from small intestine to liver

pulmonary a.: Carries blood from right/left ventricle to corresponding lung

pulmonary capillaries: Network of tiny blood vessels

R. atrium: Upper heart chamber

R. pulmonary a.: Carries blood from right ventricle to right lung

R. pulmonary v.v.: Carry blood from right lung to left atrium

R. ventricle: Lower heart chamber

renal a.a.: Branches of abdominal aorta that supply the kidneys

renal v.v.: Short, thick veins of the kidneys spleen: Lymphatic organ

splenic a.: Branch of celiac artery to spleen stomach: Saclike organ; reservoir for food

superior mesenteric a.: Supplies small intestine, cecum, ascending colon, right side of transverse colon

superior vena cava: Principal vein of upper body; 2nd largest vein in body

veins: Vessels that carry blood to heart

## **HEART & CIRCULATION**

abdominal aorta: Continuation of aorta; largest artery in abdominal cavity

aortic arch (arch of aorta): Curved part of aorta aortic valve: Valve between left ventricle, aorta apex: Lower, pointed end of left ventricle

ascending aorta: Portion from the beginning of the aorta to the arch

brachiocephalic trunk: Branch of aortic arch that divides into right carotid, subclavian arteries circumflex branch of L. coronary a.: Branch of left main coronary artery

common carotid a.: Supplies head, neck; divides into external, internal

coronary sinus: Receives venous blood from heart; empties into right atrium

descending aorta: Portion from the arch to the division into common iliac arteries

external jugular v.: Superficial vein of face, neck fat: Tissue serving as energy reserve

great cardiac v.: Large vein that starts at apex of heart, curves around to join coronary sinus inferior thyroid v.: Drains thyroid gland

inferior vena cava: Principal vein of lower body; largest vein in body

internal jugular v.: Larger superficial vein of face, neck

L. anterior descending (or anterior intraventricular) coronary a.: Division of left main coronary artery L. atrium: Upper heart chamber

L. auricle: Pouch of the atria

L. brachiocephalic v.: Upper chest vein; formed by union of subclavian, internal jugular veins

L. common carotid a.: Supplies head, neck

L. external jugular v.: Superficial vein of face, neck

L. inferior pulmonary v.: Carries blood from inferior lobes of left lung to left atrium

L. posterior papillary m.: Column of heart muscle L. pulmonary a.: Carries blood from right ventricle to left lung

L. pulmonary v.: Carries blood from left lung to left atrium L. subclavian a.: Branch of aortic arch; supplies

left arm L. superior pulmonary v.: Carries blood from

superior lobes of left lung to left atrium

L. ventricle: Lower heart chamber

ligamentum arteriosum: Tissue pulmonary trunk, aorta

middle cardiac v.: Begins at apex, continues to coronary sinus

mitral valve: Valve between left atrium, left ventricle

muscular interventricular septum: Wall that separates left, right ventricles

posterior descending a.: Branch of right coronary artery

posterior v. of L. ventricle: Vein of left ventricle running to coronary sinus, great cardiac vein pulmonary trunk: Large vessel of right ventricle

pulmonary valve: Flows blood in right direction; prevents backflow

R. atrium: Upper heart chamber

R. brachiocephalic v.: Upper chest vein; formed by union of subclavian, internal jugular veins

R. common carotid a.: Supplies head, neck

R. coronary a.: Branch of aorta supplying right side of heart

R. external jugular v.: Superficial vein of face, neck

R. inferior pulmonary v.: Carries blood from

inferior lobes of right lung to left atrium R. pulmonary a.: Carries blood from right ventricle to right lung

R. pulmonary v.: Carries blood from right lung to left atrium

R. subclavian a.: Supplies right arm

R. superior pulmonary v.: Carries blood from superior lobes of right lung to left atrium

R. ventricle: Lower heart chamber

subclavian a.: Artery at base of neck supplying neck, arm subclavian v.: Vein at base of neck draining neck,

arm

sulcus terminalis: Shallow groove

superior vena cava: Principal vein of upper body; 2nd largest vein in body

tricuspid valve: Valve between right atrium, right ventricle

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#### **HEART: NERVES & ARTERIES**

anterior interventricular branch (L. anterior descending): Division of left main coronary artery

atrioventricular (AV) node: Specialized tissue that coordinates heart rate

Bachmann's bundle: Connects top of right, left atriums; part of atrial conduction system

circumflex branch: Artery of the heart

common AV bundle (of His): Bundle of cardiac muscles that conducts electrical impulses that regulate heartheat

1st-4th dorsal interossei: 4 small muscles

abductor digiti minimi (foot): Little toe

abductor digiti minimi (hand): Little finger

abductor pollicis longus: Forearm muscle

adductor longus: Long thigh adductor;

anconeus: Small triangular muscle that

arcuate line: Marks lower posterior wall of

auricularis anterior: Muscle before the ear

auricularis superior: Muscle above the ear

biceps femoris: Large flexor muscle at

bicipital aponeurosis (front of arm):

brachioradialis: Radial-side flexor; flexes

buccinator: Thin, broad cheek muscle;

corrugator fibers: Muscle fibers that

depressor anguli oris: Frowning muscle

depressor labii inferioris: Depresses the

digastric: Elevates hyoid bone; depresses

erector spinae: Deep back muscle that

extends length of back; straightens,

ex. carpi radialis brevis: Short, radial-side

ex. carpi radialis longus: Long, radial-side

ex. carpi ulnaris: Ulnar-side hand extensor

ex. digitorum brevis: Muscle of upper foot

ex. digitorum communis: Forearm muscle

ex. digitorum longus: Long muscle at

ex. hallucis brevis: Muscle at top of foot

ex. hallucis longus: Long muscle on the

ex. retinaculum: Fibrous band binding

external intercostals: Any of 11 muscles

fascia lata (band of Richer): Deep sheet of

front of lower leg that extends small toes,

surface that extends toes

that extends wrist, fingers

flexes foot upward

that extends big toe

hand tendons

that aid in inhalation

shin that extends big toe

ex. indicis: Extends index finger

ex. pollicis brevis: Adducts hand

ex. pollicis longus: Abducts hand

fibrous tissue enveloping thigh

fat pad: Protective mass of fat cells

muscle that extends, abducts the hand

muscle that extends, abducts the hand

Shoulder

Tendon

flexor

biceps brachii: 2-headed elbow flexor

back of upper leg; forms hamstring

Connective tissue of biceps brachii

brachialis: Flexes forearm at elbow

compresses cheek against teeth

calcaneal (Achilles) tendon:

joining calf muscles to heel bone

adductor magnus: Large thigh adductor

adductor pollicis: Thumb adductor

abductor hallucis: Big toe abductor

adductor brevis: Short thigh adductor

that abducts thumb, wrist

cusp: Flap of heart valve

between metacarpals

**MUSCLES** 

abductor

abductor

middle of the 3

extends forearm

forearm at elbow

coracobrachialis:

wrinkle the brow

corrugator: Wrinkles brow

cremaster: Muscle of the testes

deltoid: Triangular shoulder muscle

adductor

lower lip

mandible

rotates back

adductor

rectus sheath

internodal tract: Pathway of atrial conduction L. & R. bundle branches: Branches of bundle

of His main L. coronary a.: Left branch of aorta

inferior thyroid v.: Drains thyroid gland

system; anterior, middle, posterior tracts

main R. coronary a.: Right branch of aorta marginal branches: Branches of coronary artery along margins of heart

posterior interventricular branch: Division of coronary artery

Purkinje fibers: Cardiac muscle fibers that relay impulses, allowing ventricles to contract

sinoatrial (SA) a.: Supplies sinoatrial node; usually a branch of the right coronary artery sinoatrial (SA) node: Heart's pacemaker

> fl. carpi radialis: Palmar-side hand flexor, fl. carpi ulnaris: Ulnar-side hand flexor,

> adductor fl. digitorum brevis: Muscle at middle of

sole of foot that flexes small toes fl. digitorum longus: Muscle at tibial side

of leg that flexes small toes fl. digitorum profundus: Deep ulnar-side forearm muscle that flexes terminal finger hones

fl. digitorum superficialis: Palmar-side forearm muscle that flexes 2nd phalanx of each finger

fl. hallucis longus: Deep, fibular-side muscle that flexes 2nd phalanx of big toe

fl. pollicis longus: Radial-side forearm muscle that flexes 2nd thumb phalanx fl. retinaculum (ankle): Fibrous band

forming a tarsal tunnel fl. retinaculum (hand): Fibrous band

forming carpal canal

frontalis: Thin muscle that lifts eyebrows, wrinkles forehead gastrocnemius: Largest, most superficial

calf muscle gemellus inferior: Small hip muscle

originating from ischial tuberosity gemellus superior: Small hip muscle originating from ischial spine

maximus: Largest buttocks gluteus muscle

gluteus medius: Middle buttocks muscle gluteus minimus: Smallest buttocks muscle

gracilis: Slender thigh muscle

hypothenar m.m.: Muscles of the little finger iliopsoas: Thigh flexor; bends pelvis

forward iliotibial band: Band assisting with knee

flexion, extension, stability incisivus labii inferioris: Fibers of lower

lip incisivus labii superioris: Fibers of upper

lip inferior ex. retinaculum: Lower band binding extensor tendons of the ankle

infraspinatus: One of 4 rotator cuff muscles; main rotator of shoulder inguinal I.: Thick fibrous band of groin

region internal intercostals: Any of 11 muscles

that aid in exhalation lateral palpebral I.: Fibrous band that attaches tarsal plates to orbital eminence of zygomatic bone

lateral patellar retinaculum: Fibrous tissue of vastus lateralis

latissimus dorsi: Broad back muscle

levator anguli oris: Facial muscle of the mouth arising from the maxilla; lifts lips levator labii alaeque nasi: Enables one to

snarl levator labii superioris: Facial muscle; lifts upper lip

levator palpebrae superioris: Thin muscle that lifts eyelid

levator scapulae: Elevates shoulder blade linea alba: Tendinous line that divides rectus abdominis

linea semilunaris: Slightly curved line parallel to midline of body; marks lateral border of rectus abdominis

lumbricales: 4 small muscles of the palm of the hand

**MUSCLES (continued)** 

masseter: Chewing muscle

medial patellar retinaculum: Fibrous tissue of vastus medialis

medial pterygoid: Thick, quadrilateral muscle that assists in lifting

lower jaw; controls other jaw movements mentalis: Muscle of the chin

muscular node: Mass of muscular tissue at corner of mouth

nasalis: Compresses nasal cartilage

obliquus externus: Outer, slanting abdominal muscle obliquus internus: Inner, slanting abdominal muscle

obturator internus: Thigh rotator, abductor occipitalis: 4-sided muscle; moves the scalp omohyoid: Depresses the hyoid bone

orbicularis oculi: Encircles opening of eye; closes eyelid orbicularis oris: Encircles mouth; controls lip movement palmar aponeurosis: Connective tissue covering palm muscles

palmaris longus: Flexes hand at wrist

patellar tendon: Quad tendon that extends from patella to tibia pectineus: Flat, quadrangular muscle of upper thigh; flexes hip;

adducts, rotates thigh

pectoralis major: Large breast muscle pectoralis minor: Small breast muscle

peroneal retinaculum: Bands of connective tissue that bind ankle

peroneus brevis: Shorter lower leg muscle peroneus longus: Long lower leg muscle

peroneus tertius: Branch of extensor digitorum longus

piriformis: Pear-shaped muscle attached to greater trochanter of

platysma: Wide neck muscle; wrinkles neck; draws down lower lip, corners of mouth

popliteal fossa: Soft depression behind knee pronator teres: Forearm pronator, flexor pyramidalis: Triangular muscle of rectus sheath quadratus inferior: Flat muscle; rotates thigh laterally rectus abdominis: Long, flat abdomen muscle; "six pack" rectus femoris: Quads muscle at middle of thigh

rectus sheath: Strong fibrous sleeve in which rectus abdominis, pyramidalis muscles contract

rhomboid major: Large muscle connecting shoulder blade, thoracic vertebrae

rhomboid minor: Small muscle connecting shoulder blade, cervical and thoracic vertebrae

risorius: Laughing muscle

sacrotuberous I.: Fan-shaped ligament of lower back of pelvis, on each side of the body

sartorius: Longest muscle in body; runs down thigh

scalenus: 3 deep neck muscles: anterior, middle, posterior semimembranosus: Most medial of hamstring muscles

semispinalis capitis: Upper muscle of back of neck; extends, rotates head

semitendinosus: Hamstring muscle at back of thigh

serratus anterior: Attached to first 8 or 9 ribs; stabilizes scapula by holding it to chest wall, rotates it while raising arm

serratus posterior inferior: Thin quadrilateral back muscle at junction of thoracic, lumbar regions

soleus: Powerful, broad, flat calf muscle

splenius capitis: Broad muscle on each side of back of neck; rotates

sternocleidomastoid: Paired muscle of breastbone, collarbone sternohyoid: Chest muscle; depresses hyoid bone, larynx sternomastoid: Paired neck muscle; flexes, rotates head stylohyoid: Slender muscle that elevates, retracts hyoid

subclavius: Small, triangular collarbone muscle subscapularis: Large, triangular shoulder blade muscle

superior ex. retinaculum: Upper band binding tendons above ankle

superior tarsus: Fibrous tissue of upper eyelid

supinator: Motion-producing muscle

supraspinatus: Rotator cuff muscle; rotates humerus laterally, abducts arm at shoulder

synovial fl. tendon sheaths: Cover tendons of the hand

temporalis: Chewing muscle

tendinous inscriptions: Fibrous bands crisscrossing the stomach

tensor fascia lata: Thigh flexor, abductor

teres major: Thick, flattened muscle; extends arm when flexed, rotates arm medially

teres minor: Narrow, cylindrical muscle of rotator cuff; rotates arm laterally, abducts arm

thenar m.m.: Muscles of the thumb

tibialis anterior: Muscle originating from upper calf; flexes, inverts foot

transversus abdominis: Flat muscle with transverse fibers that forms front, side abdominal walls

trapezius: Large triangular muscle of each side of upper back

triceps brachii: 3-headed elbow flexor

ulnar bursa: Contains flexor tendons of fingers umbilicus: Navel

vastus lateralis: Front, outer division of quads muscle vastus medialis: Front, inner division of quads muscle

**zygomatic major:** Thin band of muscle on each side of face that pulls

corners of mouth back when smiling

zygomatic minor: Thin band of muscle on each side of face that raises upper lip

# **QuickStudy MUSCLES OF THE HEAD**

buccinator: Thin, broad cheek muscle; compresses cheek against teeth

depressor anguli oris: Frowning muscle

depressor labii inferioris: Depresses the lower lip frontalis: Thin muscle that lifts eyebrows, wrinkles forehead

galea aponeurotica: Dense fibrous tissue covering upper cranium

levator labii alaeque nasi: Enables one to snarl levator labii superioris: Facial muscle; lifts upper lip

masseter: Chewing muscle mentalis: Muscle of the chin nasalis: Compresses nasal cartilage occipitalis: 4-sided muscle; moves the scalp

orbicularis oculi: Encircles opening of eye; closes evelid

orbicularis oris: Encircles mouth; controls lip movement procerus: Draws eyebrows down; flares nostrils

temporalis: Chewing muscle zygomatic major: Thin band of muscle on each side of face that pulls corners of mouth back when smiling

zygomatic minor: Thin band of muscle on each side of face that raises upper lip

#### **BRAIN (SAGITTAL SECTION)**

4th ventricle: Diamond-shaped cavity of the brain; lowest of 4 ventricles

anterior commissure: Band of nerve fibers connecting cerebral hemispheres

arbor vitae: White matter

central sulcus: Groove separating parietal, frontal lobes cerebellar cortex: Surface layer of cerebellum cerebellar peduncles: Bands of nerve fibers connecting

parts of the brain

cerebellum: Part of the brain concerned with muscle coordination, bodily equilibrium maintenance

cerebral aqueduct: Passage joining 3rd, 4th ventricles cerebral peduncle: Nerve fiber bundle; joins cerebral hemispheres, spinal cord

cingulate gyrus: Middle ridge of cerebral hemispheres cingulate sulcus: Groove on medial surface of cerebral hemisphere

corpora quadrigemina: 4 colliculi of midbrain; centers for optic, auditory reflexes

corpus callosum: Nerve fiber bundle connecting cerebral hemispheres

fornix: Arching bundle of fibers that connects hippocampus, hypothalamus

frontal lobe: Anterior division of cerebral hemispheres hypophysis (pituitary gland): Master gland; secretes hormones

hypothalamus: Regulatory portion of brain, below the thalamus

interthalamic adhesion: Flattened gray band connecting surfaces of the thalamus

lateral ventricle(s) (1st & 2nd): Internal cavities of cerebral hemispheres; communicate with 3rd ventricle mammillary body: Paired masses on underside of the

brain medulla oblongata: Connects brain to spinal cord occipital lobe: Visual processing center

optic chiasm: Crossing of optic nerves paraterminal gyrus: Narrow ridge on medial wall of

cerebral hemisphere

parietal lobe: Middle division of cerebral hemispheres parieto-occipital sulcus: Groove marking boundary between parietal, occipital lobes

pineal body: Small endocrine gland; produces melatonin

pons: Outgrowth of tissue on brain stem

posterior commissure: Bundle of white matter above

midbrain

precentral sulcus: Groove in front of central sulcus spinal cord: Cylindrical column of nerve tissue sulcus of corpus callosum: Groove that separates

brain's white matter from overlying matter superior medullary velum: Thin layer of white matter

that forms upper part of 4th ventricle temporal lobe: "Hearing" lobe

thalamus (3rd ventricle): Mass of gray matter between cerebral hemispheres on each side of 3rd ventricle; relays sensory impulses

#### **SURFACE BRAIN**

fissure in cerebellum

angular gyrus: Ridge of parietal lobe

central sulcus (of Rolando): Groove separating parietal, frontal lobes

cerebellum: Part of the brain concerned with muscle coordination, bodily equilibrium maintenance

frontal pole: Forward tip of frontal lobe horizontal fissure of cerebellum: Largest, deepest

inferior frontal gyrus: Ridge of frontal lobe; 3 parts: opercular, orbital, triangular

inferior frontal sulcus: Groove between the middle. inferior frontal gyri

inferior parietal lobule: Lower division of parietal lobe

inferior temporal gyrus: Lower temporal ridge inferior temporal sulcus: Lowest temporal groove medulla oblongata: Connects brain to spinal cord middle frontal gyrus: Ridge that makes up 1/3 of frontal lobe

middle temporal gyrus: Middle temporal ridge olfactory bulb: Bulbous projection of olfactory lobe; contains nasal sensory nerves

parieto-occipital sulcus: Groove marking boundary between parietal, occipital lobes

pons: Outgrowth of tissue on brain stem postcentral gyrus: Ridge of parietal lobe

postcentral sulcus: Groove of parietal lobe parallel to, behind the central sulcus

precentral gyrus: Contains motor area; directly above central sulcus

superior frontal sulcus: Groove between superior

frontal, middle frontal gyri superior temporal gyrus: Uppermost temporal ridge superior temporal sulcus: Groove between superior temporal, middle temporal gyri

supramarginal gyrus: Sidelong ridge of cerebral hemisphere

supraparietal lobule: Division of upper parietal lobe temporal pole: Anterior-most part of temporal lobe transverse cerebellar fissure: Separates cerebellum, cerebral hemispheres

#### **BRACHIAL PLEXUS**

1st cervical vertebra: First of 7 cervical bones of spinal column: atlas vertebra

7th cervical vertebra: Most prominent cervical vertebra; vertebra prominens

1st thoracic vertebra: First of 12 thoracic bones of spinal column

axillary n.: Armpit nerve

brachial plexus (C5-T1): Complex network of 4 cervical nerves, 1st thoracic nerve

cervical n.n. (C1-C8): Paired spinal nerves of cervical region

cervical plexus (C1-C4): Complex network of 4 cervical nerves

cutaneous n. of forearm: Nerve supplying sensory stimuli to the skin

humerus: Longest bone of upper arm

inferior trunk: Lowest division of brachial plexus;

lateral cord: Formed by superior, middle trunks of brachial plexus; forms median nerve

medial cord: Continuation of inferior trunk of brachial plexus: forms median nerve

median n.: Nerve running along middle of arm middle trunk: Division of brachial plexus; C7

musculocutaneous n.: Supplies upper arm, forearm pedicle: Short, bony process on each side of neural

posterior cord: Formed by divisions of brachial plexus; divides into axillary, radial nerves

radial n.: Nerve of upper arm

**supraclavicular n.:** Nerve of cervical plexus; supplies skin of upper chest, shoulder

thoracic n.n. (T1-T12): Paired spinal nerves of thoracic region transverse process: Bony protrusion on each side of

ulnar n.: Nerve running along inner side of arm

upper trunk: Superior division of brachial plexus; C5, C6

#### **SACRAL PLEXUS**

12th thoracic vertebra: Last of 12 thoracic bones of spinal column 1st lumbar vertebra: First of 5 lumbar bones of spinal column 5th lumbar vertebra: Last of 5 lumbar bones of spinal column coccygeal n.: Lowest pair of spinal nerves

dorsal n. of penis (clitoris): Deepest branch of pudendal nerve femoral n.: Large nerve that supplies muscles of the thigh femur: Thigh bone

filum dura mater: Threadlike continuation of spinal cord

genitofemoral n.: Nerve branches supplying upper thigh, genital area iliohypogastric n.: Upper branch of 1st lumbar nerve

ilioinguinal n.: Lower branch of 1st lumbar nerve inferior gluteal n.: Nerve supplying gluteus maximus inferior rectal n.: Branch of pelvic nerve; supplies the sphincter lateral femoral cutaneous n.: Nerve supplying outer thigh

lumbar n.n. (L1-L5): Paired spinal nerves of lumbar region (lower back)

**lumbar plexus (T12–L4):** Major nerve network of lumbar region **pedicle:** Short, bony process on each side of neural arch

perineal n.: Nerve of pelvic region

**posterior femoral cutaneous n.:** Nerve supplying perineum, back of thigh and leg

pudendal n.: Nerve of pelvic region

sacral n.n. (S1–S5): Paired spinal nerves of sacral region sacral plexus (L4–S4): Major nerve network of sacrum sacrum: Triangular bone of 5 fused vertebrae

sciatic n.: Thickest nerve in body; runs from sacral plexus down back of thigh

**superior gluteal n.:** Nerve supplying gluteal, thigh muscles **thoracic n.n. (T1–T12):** Paired spinal nerves of thoracic region

#### **HIP LIGAMENTS**

Δ

capsular I.: Reinforcing fiber outside the joint capsule greater trochanter: Projection on the upper, outer end of the thigh bone

**iliofemoral I. (Y I. of Bigelow):** Y-shaped ligament of hip joint **inguinal I.:** Thick fibrous band of groin region

**intertrochanteric line:** Ridge of bone running from greater to lesser trochanter

ischiocapsular I.: Triangular band of fibers on back of hip joint joint I. (or joint capsule): Ligamentous sac surrounding movable joint

lesser trochanter: Small projection of the thigh bone

**obturator membrane:** Fibrous sheet that spans most of the obturator foramen

pubic tubercle: Rounded projection of bone on pubic crest pubofemoral I./pubocapsular I.: Limits extension, abduction of thick

symphysis pubis: Middle junction of pubic bones

**transverse acetabular I.:** Flat, strong fibers that bridge the acetabular notch

#### **COMPONENTS OF THE FINGER**

1st dorsal interosseous m.: Small hand muscle between metacarpals 1st palmar interosseous m.: Small hand muscle on side of finger

**2nd metacarpal:** Bone of index finger **5th metacarpal:** Bone of little finger

**articular cartilage:** Smooth cartilage on joint surface of bone **capitate:** Largest wrist bone

collateral I.I.: Bands that span hinge joints of finger bones

distal interphalangeal (DIP) joint: Hinge joint between 2nd, 3rd phalanges

distal phalanx: Bone at tip of finger

**dorsal expansion (hood):** Attachments that insert extensor tendons into phalanges

**ex. digitorum communis:** Forearm muscle that extends fingers, wrist

ex. indicis: Extends index finger

**ex. insertions:** Where extensor muscles attach to finger bones

hamate: Wedge-shaped wrist bone

**intertendinous bands:** Bands of connective tissue between extensor tendons of fingers

joint capsule: Ligamentous sac surrounding movable joint lateral bands: Flattened tendons of extensor muscles

metacarpophalangeal (MCP) joint: Joint between wrist, 1st phalanges

middle phalanx: Middle bone of each finger pisiform: Small, pea-shaped wrist bone

proximal interphalangeal (PIP) joint: Joint between 1st, 2nd phalanges

proximal phalanx: Bone at base of each finger

radius: Thumb-side forearm bone scaphoid: Largest proximal wrist bone

slips of long ex. tendons to lateral bands: Narrow strips of tendon at base of PIP joint

styloid process: Projection of the ulna

surface: Outer exposed part

trapezium: Distal wrist bone between scaphoid, 1st metacarpal

**trapezoid:** Smallest bone in distal row **triquetrum:** Triangular wrist bone **ulna:** Little-finger-side forearm bone

# **QuickStudy**

# HIP & SCIATIC NERVE

acetabulum: Bowl-like cavity on hip bone

articular capsule: Ligamentous sac surrounding

coccyx: Tailbone

**dorsal sacral foramina:** Rounded openings in the pelvis for passage of sacral nerves

**greater sciatic notch:** Large notch on lower border of hip bone

**greater trochanter:** Projection on the upper, outer end of the thigh bone

head of femur: Highest part of the thigh bone iliac crest: Upper margin of the ilium ilium: Uppermost, largest pelvic bone

**ischial bursa:** Pad-like sac covering ischial tuberosity

**ischial tuberosity:** Large swelling of ischium; holds body's weight when sitting

ischiofemoral I.: Triangular band of fibers on back of

latissimus dorsi: Broad back muscle

**lesser trochanter:** Small projection of the thigh bone **neck of femur:** Narrow process connecting parts of the thigh bone

**obturator foramen:** Opening between ischium, pubis bones

obturator internus: Thigh rotator, abductor

**obturator membrane:** Fibrous sheet that spans most of the obturator foramen

piriformis: Pear-shaped muscle attached to greater trochanter of femur

**posterior inferior iliac spine:** Projection on posterior margin of ilium

posterior superior iliac spine: Sharp projection at posterior end of iliac crest

pubis: Pubic bone

ramus of ischium: Part of ischium below obturator foramen

sacral hiatus: Gap at lower end of sacrum sacroiliac joint: Joint between sacrum, ilium

sacrospinal I. (sacrospinous I.): Fibrous band on each side of body that passes from sacrum and coccyx to ischial spine

**sacrotuberous I.:** Fan-shaped ligament of lower back of pelvis, on each side of the body

**sciatic n.:** Thickest nerve in the body; runs from sacral plexus down back of thigh

spine of ischium: Pointed projection on ischium

**supraspinous I.:** Long fibrous cord of the spinal column **thoracolumbar fascia:** Sheet of connective tissue that covers lower back muscles

**trochanteric bursa:** Pad-like sac on greater trochanter of femur

**KNEE LIGAMENTS (FRONT & BACK)** 

adductor tubercle: Small bump of the thigh bone anterior cruciate I. (ACL): Major knee ligament; works to prevent tibia from moving too far forward

anterior I.I. of the fibular head: Wide, flat bands that pass from front of fibular head to front of lateral condyle of tibia

**anterior meniscofemoral I.:** Ligament of Humphrey; anterior to PCL

femur: Thigh bone fibula: Calf bone

fibular (lateral) collateral I.: LCL; band on outer side of knee; connects lateral epicondyle of femur with head of fibula

head of fibula: Rounded end of calf bone

intercondylar fossa: Depression between femoral condyles

**intercondylar line:** Ridge separating intercondylar fossa, popliteal surface

**lateral condyle of femur:** Projection on lower, outer part of thigh bone

lateral condyle of tibia: Projection on upper, outer part of shinbone

lateral epicondyle of femur: Projection above lateral condyle of femur

lateral/medial meniscus: Crescent-shaped band of fibrous cartilage

**medial condyle of femur:** Projection on lower, inner part of thigh bone

medial condyle of tibia: Projection on upper, inner part of shinbone

**medial epicondyle of femur:** Projection above medial condyle of femur

patella: Kneecap

patellar I.: Continuation of quadriceps femoris

popliteal surface: Surface at back of knee joint

posterior cruciate I. (PCL): Major knee ligament; works to prevent tibia from moving too far backward

**posterior I.I. of the fibular head:** Thick bands passing from end of calf bone to lateral condyle of tibia

posterior meniscofemoral I.: Ligament of Wrisberg; posterior to PCL

tibia: Shinbone

tibial (medial) collateral I.: MCL; wide, flat band on inner side of knee; connects medial epicondyle of femur with medial condyle of tibia

tibial tuberosity: Rounded prominence on upper end of shinbone

#### **HEAD: EYE, EAR, NOSE, MOUTH**

**7th cervical vertebra:** Most prominent cervical vertebra; vertebra prominens

**auditory (eustachian) tube:** Tube linking middle ear, nasopharynx; equalizes pressure on sides of tympanic membrane

central sulcus: Groove separating parietal, frontal lobes

cerebellum: Part of the brain concerned with muscle coordination, bodily equilibrium maintenance

cervical n.n.: Paired spinal nerves of cervical region cricoid cartilage: Ring-shaped cartilage around the trachea

**epiglottis:** Flap of cartilage in throat behind tongue, in front of larvnx

front of larynx **esophagus:** Muscular tube through which food travels

from the mouth to the stomach frontal lobe: Anterior division of cerebral hemispheres frontal sinus: 1 of 2 air-filled, mucus-lined cavities; not present at birth but fully developed after puberty

**genioglossus m.:** Fan-shaped muscle; protrudes the tongue

**geniohyoid m.:** Narrow muscle that draws hyoid bone forward, depresses the jaw

hard palate: Hard, bony part of division between oral, nasal cavities

head of the mandible: Projection on jawbone hyoid bone: U-shaped bone at base of tongue inferior nasal meatus: Lower nasal passage inner ear (cochlea): Snail shell—like cavity

L. inferior nasal concha: Lowest, largest nasal concha; separates inferior, middle nasal meatuses

**L. medial nasal concha:** Separates superior, middle nasal meatuses

larynx: Voice box

mandible: Lower jawbone mylohyoid m.: Appears on each side of mouth; forms

floor of oral cavity **nasal bone:** 2 small, oblong bones forming bridge of

the nose

nuchal I.: Tendon-like structure that originates from
spinous processes of cervical vertebrae

assinited labor Visual processing conta

occipital lobe: Visual processing center olfactory bulb: Bulbous projection of olfactory lobe; contains nasal sensory nerves

optic n.: Paired cranial nerves

orbicularis oris m.: Encircles mouth; controls lip movement

palatine tonsil: Tonsil on left, right side at back of

parietal lobe: Middle division of cerebral hemispheres pharyngeal tonsil: Adenoids; mass of lymphoid tissue at back of pharynx

sphenoid sinus: Cavity in sphenoid bone

spinal cord: Cylindrical column of nerve tissue

temporal lobe: "Hearing" lobe

**temporomandibular capsule:** Fibrous membrane surrounding TMJ

**temporomandibular joint (TMJ):** Small joint between front of ear, mandible; allows movement of mandible

thyroid cartilage: Forms Adam's apple

**tongue:** Movable organ on floor of mouth; aids in taste, speech, swallowing

tympanic membrane: Eardrum

uvula: Conic lobe projecting downward from posterior border of soft palate

**vocal cord:** Fold of mucous membrane stretched across larynx

anterior chamber: Space between cornea, iris, lens

anterior ciliary v.: Small vein of ciliary body central a. & v. of retina: Branch of ophthalmic artery, vein into the retina

**choroid (coat):** Vascular layer between sclera, retina; contains large branched pigment cells

ciliary m.: Ring of smooth muscle fibers that allows lens to change shape, focus on distant objects; contains circular, meridional (longitudinal) muscle fibers

**ciliary process:** Vascular folds; attachment of zonule of Zinn

**conjunctiva:** Mucous membrane lining of eyelid, forepart of eyeball

cornea: Transparent part that admits light into eye

fovea centralis in macula lutea: Pit of retina in which vision is most acute greater (major) arterial circle of iris: Circular

arteries on border of iris inferior nasal a. & v.: Artery, vein supplying

inferior temporal a. & v.: Artery, vein supplying retina

#### EAR

retina

auditory (eustachian) tube: Tube linking middle ear, nasopharynx; equalizes pressure on sides of tympanic membrane

**auditory n.:** 8th cranial nerve; nerve of hearing, equilibrium

**auditory ossicles: incus:** Middle, anvil-shaped bone; works with malleus, stapes to transmit sound to cochlea

auditory ossicles: malleus: Outermost, hammer-shaped bone; works with incus, stapes to transmit sound to cochlea

**auditory ossicles: stapes:** Innermost, stirrupshaped bone; works with incus, malleus to transmit sound to cochlea

auricle: Fleshy, external portion

auricular cartilage: Cartilage lining of outer ear cochlea: Snail shell—like cavity

**cochlear n.:** Branch of auditory nerve; conducts stimuli to brain

epitympanic recess: Cavity above eardrum external acoustic meatus: Passageway of external ear to eardrum

#### EAR (INTERIOR)

**ampullae:** Saclike dilations that contain sensory epithelium

**cochlear duct:** Spiral tube that contains organ of Corti

**cochlear n.:** Branch of auditory nerve; conducts stimuli to brain

common crus: United ends of semicircular ducts

ductus reuniens: Canal connecting saccule, cochlear duct

eardrum (tympanic membrane): Vibrates in response to sound, transmits stimuli to middle ear

endolymphatic duct: Duct connecting utricle, saccule; ends blindly with endolymphatic sac endolymphatic sac: Expanded blind end of endolymphatic duct

**facial n.:** 7th cranial nerve; supplies facial muscles, tongue

incus (anvil): Middle, anvil-shaped bone; works with malleus, stapes to transmit sound to cochlea

malleus (hammer): Outermost, hammer-shaped bone; works with incus, stapes to transmit sound to cochlea

**organ of Corti:** Cochlear structure that contains auditory sensory cells

iris: Opaque, pigmented continuation of choroid; directs light through the pupil

lamina cribrosa of sclera: Passageway for optic nerve fibers

lateral rectus m.: Longest of 4 orbit muscles lens: capsule: Transparent connective tissue surrounding lens; helps eye to focus

lens: cortex: Outer layer

lens: nucleus: Core

medial rectus m.: Broadest of 4 orbit muscles optic n. (II): Paired cranial nerves; sends visual stimuli to brain

ora serrata: Notched edge of retina

**posterior chamber:** Space behind iris, in front of zonule of Zinn

**retina:** Sensory, layered membrane of eye; includes rods, cones

Schwalbe's line: Thickened margin of cornea sclera: White of the eye

sinus venosus of sclera (Schlemm's canal):

Drains anterior aqueous humor into veins of eve

trabecular meshwork: Connective tissue vitreous body: Transparent, jellylike substance zonule of Zinn (ciliary zonule): Collagen fibers that form the suspensory ligament of the lens

**facial n.:** 7th cranial nerve; supplies facial muscles, tongue

**levator veli palatini m.:** Lifts soft palate; prevents liquid, solid from exiting through nose when swallowing

**round (cochlear) window:** Membrane-covered opening between middle ear, cochlea

**semicircular canals:** Enclosing membranous tubes; help maintain equilibrium

**stapedius m.:** Stabilizes, dampens vibration of stapes

**temporal bone:** Bone at sides of skull; has 4 parts: squamous, petrous, tympanic, mastoid process

temporal m. (temporalis): Chewing muscle tensor tympani m. (continues through bone to malleus): Tension-adjusting muscle for tympanic membrane

**tympanic cavity:** Middle ear cavity; transmits vibrations to inner ear

tympanic membrane: Eardrum vestibular n.: Inner ear nerve

round (cochlear) window (closed by secondary tympanic membrane): Membrane-covered opening between middle ear, cochlea

saccule: Smallest sac in inner ear

scala tympani: Lymph-filled canal of cochlea; communicates with scala vestibuli

scala vestibuli: Lymph-filled canal of cochlea; receives vibrations from stapes

semicircular canals & ducts: anterior (superior): Encloses anterior membranous tube; detects roll

semicircular canals & ducts: lateral: Encloses lateral membranous tube; detects yaw semicircular canals & ducts: posterior:

semicircular canals & ducts: posterior: Encloses posterior membranous tube; detects pitch

spiral ganglion: Mass of cell bodies

**stapedius m.:** Stabilizes, dampens vibration of stapes

stapes (stirrup) in oval (vestibular) window: Innermost, stirrup-shaped bone; works with incus, malleus to transmit sound to cochlea

tectorial membrane: Jellylike membrane covering organ of Corti tensor tympani m.: Tension-adjusting muscle

for tympanic membrane
vestibular ganglion: Cell mass on vestibular

vestibular ganglion: Cell mass on vestibular nerve

vestibular membrane: Inner ear membrane vestibular n.: Inner ear nerve

#### SKIN

artery: Vessel that carries blood from the

**connective tissue:** Supports, connects tissues, body parts; tissue anchoring hair root

**corpuscle of Krause:** Touch-pressure receptor

corpuscle of Ruffini: Touch-pressure receptor; responds to stretching of, pressure on the skin

**cuticle:** Outermost layer of hair shaft; made of epithelial cells

**dermal papillae:** Bumps along superficial, papillary layer of dermis

**dermis:** Inner layer of skin, under epidermis; contains nerve endings, blood vessels, glands

epidermis: Outermost layer of skin erector pili m.: Involuntary fibers that raise the bair as when chilled

**external (root) sheath:** Hair follicle covering that is continuous along epidermis

fat lobule: Subdivision of fat

free n. endings: Nonencapsulated sensory nerve endings; detect pain, touch, temperature

**glassy membrane:** Internal, basement layer of hair follicle

hair follicle: Tubular sheath of lower hair shaft

hair matrix: Area surrounding papilla

hair shaft: Longest portion of a hair that projects outside the skin

Henle's layer: Contains cube-shaped epithelial cells arranged in a single layer; outer layer of inner root sheath

**Huxley's layer:** Between Henle's layer, hair cuticle; contains flattened epithelial cells

**hypodermis:** Connective, fatty tissue layer below dermis

**Meissner's corpuscle:** Touch-pressure receptor; responds to vibrations, pressure; occurs in extremely sensitive areas of the skin

**Merkel's discs:** Tiny ends of sensory nerve fibers; respond to touch, pain, temperature

motor n. (autonomic): Nerve carrying motor impulses

papilla of hair follicle: Vascular skin projection; nourishes hair root papillary layer: Upper layer of dermis

pore of sweat gland: Sweat-secreting opening

reticular layer: Lower layer of dermis sebaceous glands: Oil-secreting glands

**sensory n.:** Nerve carrying sensory impulses

stratum basale: Innermost, germinative cell layer of epidermis stratum corneum: Outermost layer of

epidermis; consists of dead cells stratum granulosum: Granular layer of

epidermis; contains granular, nondividing cells

**stratum lucidum:** Translucent layer of epidermis; found most often in thickened parts of epidermis

**stratum spinosum:** Prickle cell layer of epidermis; cells can undergo mitosis

sweat gland: Sweat-secreting gland

Vater-Pacini (Pacinian) corpuscle: Sensory skin nerve; responds to steady pressure, vibration

vein: Vessel that carries blood toward heart

# ANATOMY OF THE HAND (PALMAR SURFACE)

abductor digiti minimi: Little finger abductor abductor pollicis brevis m.: Thumb abductor adductor pollicis m.: Thumb adductor

**common synovial sheath:** Carpal tunnel sheath; holds flexor tendons

deep transverse metacarpal I.I.: Bands lying across palmar surface of metacarpals

digital fibrous sheath: Fibrous sheath securing flexor tendons

distal phalanges: Bones at tips of fingers fl. carpi ulnaris m.: Ulnar-side hand flexor,

adductor

fl. digiti minimi brevis: Ulnar-side little finger

fl. digiti minimi brevis: Ulnar-side little finge flexor

fl. pollicis brevis m.: Thumb flexor, adductor fl. retinaculum: Fibrous band forming carpal canal lumbrical m.m.: 4 small muscles of palm of hand that flex 1st phalanx, extend 2 distal phalanges of each finger

median n.: Nerve running along middle of arm opponens digiti minimi m.: Triangular muscle that brings little finger in opposition to thumb

**opponens pollicis m.:** Triangular muscle that abducts, flexes thumb

**pisiform bone:** Small, pea-shaped wrist bone **radius:** Thumb-side forearm bone

synovial sheath: Encloses digital flexor tendons ulna: Little-finger-side forearm bone

ulnar n.: Nerve running along inner side of arm

#### TOO

**1st metatarsal bone:** Bone before big toe **articular capsule:** Ligamentous sac surrounding

movable joint calcaneal (Achilles) tendon: Tendon joining calf muscles to heel bone

calcaneus: Heel bone

**collateral I.I.:** Bands that span hinge joints of toe bones

cuneiform bone: Wedge-shaped tarsal bone distal phalanx: Bone at tip of each toe dorsal cuneonavicular I.I.: Ligaments attaching surfaces of navicular, cuneiform bones

ex. digitorum longus: Long muscle at front of lower leg that extends small toes, flexes foot upward

**ex. hallucis longus:** Long muscle on the shin that extends big toe

fibula: Calf bone

fl. digitorum longus: Muscle at tibial side of leg that flexes small toes
fl. hallucis brevis: Short muscle that flexes 1st

phalanx of big toe

fl. hallucis longus: Deep, fibular-side muscle that

flexes 2nd phalanx of big toe

fl. retinaculum: Fibrous band forming a tarsal

tunnel
inferior ex. retinaculum: Lower band binding
extensor tendons of the ankle

lumbricales: 4 small muscles of the foot navicular bone: Hollow, boat-shaped tarsal bone peroneus brevis: Shorter lower leg muscle

peroneus longus: Long lower leg muscle phalanges 2–5: Toe bones

proximal phalanx: Bone at base of each toe
quadratus plantae m.: Muscle on sole of foot;
flexes toes

sesamoid bone: Small, embedded bone soleus: Powerful, broad, flat calf muscle superior ex. retinaculum: Upper band binding

tendons above ankle joint talus: Anklebone

tibia: Shinbone tibialis anterior: Muscle originating from upper

calf; flexes, inverts foot
tibialis posterior: Stabilizes lower leg; flexes,
inverts foot

trochlea: Smooth surface of talus; joins with ends of tibia, fibula

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