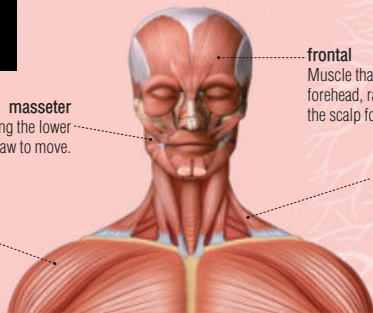




frontal

Muscle that creases the skin of the forehead, raises the eyebrows and pulls the scalp forward.

masseter

Masticator muscle enabling the lower jaw to move.

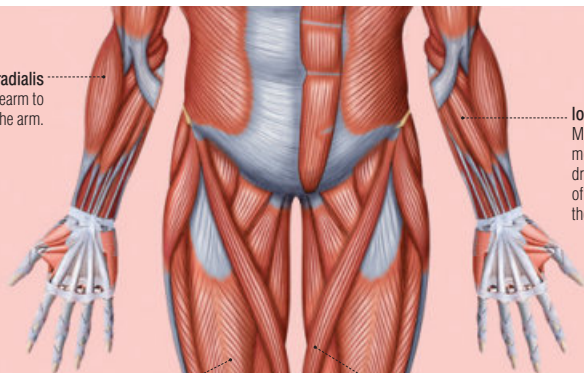
deltoid

Thick triangular muscle drawing the arm away from the median axis of the body and directing it toward the front and back until it is horizontal.

trapezius

Large flat triangular muscle enabling many shoulder movements; it also helps to extend the head.

THE HUMAN BEING



brachioradialis

Muscle mainly enabling the forearm to flex on the arm.

long palmar

Muscle enabling various hand movements, including flexing it and drawing it away from the median axis of the body; it also helps to stabilize the wrist.

straight muscle of thigh

Powerful muscle enabling the knee to extend and the thigh to flex on the pelvis.

sartorius

Long narrow ribbon-shaped muscle enabling the thigh to flex and to rotate outwardly (outside the median axis); it also allows the leg to flex.

long peroneal

Muscle attached to the fibula enabling the foot to extend and to draw away from the median axis of the body; it also supports the plantar arch.

anterior tibial

Thick muscle enabling the foot to flex on the leg and to draw near the median axis of the body; the posterior tibial allows the foot to extend.

gastrocnemius

Large thick muscle forming the curve of the calf and allowing the foot to extend; it also helps the knee to extend.

THE HUMAN BEING

Jean-Claude **Corbeil**

Ariane **Archambault**

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T 514.499.3000 F 514.499.3010
www.qa-international.com

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EDITORIAL STAFF

Editor: Jacques Fortin
Authors: Jean-Claude Corbell and
Ariane Archambault
Editorial Director: François Fortin
Editor-in-Chief: Anne Rouleau
Graphic Designer: Anne Tremblay

PRODUCTION

Nathalie Fréchette
Josée Gagnon

TERMINOLOGICAL RESEARCH

Jean Beaumont
Catherine Briand
Nathalie Guillo

ENGLISH DEFINITIONS

Nancy Butchart
Rita Cloghesy
Tom Donovan
Diana Halfpenny
John Woolfrey
Kathe Roth

ILLUSTRATIONS

Artistic Direction: Jocelyn Gardner
Jean-Yves Ahern
Rielle Lévesque
Alain Lemire
Mélanie Boivin
Yan Bohler
Claude Thivierge
Pascal Bilodeau
Michel Rouleau
Anouk Noël
Carl Pelletier
Raymond Martin

CONTRIBUTIONS

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LAYOUT

Pascal Goyette
Danielle Quinty
Émilie Corriveau
Preliminary layout: Émilie Bellemare
Sonia Charette

DOCUMENTATION

Gilles Vézina
Kathleen Wynd
Stéphane Batigne
Sylvain Robichaud
Jessie Daigle

DATA MANAGEMENT

Programmer: Éric Gagnon
Josée Gagnon

REVISION

Veronica Schami
Jo Howard
Marie-Nicole Cimon
Liliane Michaud

PREPRESS

Karine Lévesque
François Hénault
Julien Brisebois
Patrick Mercure

INTRODUCTION

EDITORIAL POLICY

The Visual Dictionary takes an inventory of the physical environment of a person who is part of today's technological age and who knows and uses a large number of specialized terms in a wide variety of fields.

Designed for the general public, it responds to the needs of anyone seeking the precise, correct terms for a wide range of personal or professional reasons: finding an unknown term, checking the meaning of a word, translation, advertising, teaching material, etc.

The target user has guided the choice of contents for *The Visual Dictionary*, which aims to bring together in 12 thematic books the technical terms required to express the contemporary world, in the specialized fields that shape our daily experience.

STRUCTURE

Each tome has three sections: the preliminary pages, including the table of contents; the body of the text (i.e. the detailed treatment of the theme); the index.

Information is presented moving from the most abstract to the most concrete: sub-theme, title, subtitle, illustration, terminology.

TERMINOLOGY

Each word in *The Visual Dictionary* has been carefully selected following examination of high-quality documentation, at the required level of specialization.

There may be cases where different terms are used to name the same item. In such instances, the word most frequently used by the most highly regarded authors has been chosen.

Words are usually referred to in the singular, even if the illustration shows a number of individual examples. The word designates the concept, not the actual illustration.

DEFINITIONS

Within the hierarchical format of *The Visual Dictionary*'s presentation, the definitions fit together like a Russian doll. For example, the information within the definition for the term *insect* at the top of the page does not have to be repeated for each of the insects illustrated. Instead, the text concentrates on defining the distinguishing characteristics of each insect (the *louse* is a parasite, the female *yellow jacket* stings, and so forth).

Since the definition leaves out what is obvious from the illustration, the illustrations and definitions complement one another.

The vast majority of the terms in the *Visual Dictionary* are defined. Terms are not defined when the illustration makes the meaning absolutely clear, or when the illustration suggests the usual meaning of the word (for example, the numerous *handles*).

METHODS OF CONSULTATION

Users may gain access to the contents of *The Visual Dictionary* in a variety of ways:

- From the TABLE OF CONTENTS at the end of the preliminary pages, the user can locate by title the section that is of interest.
- With the INDEX, the user can consult *The Visual Dictionary* from a word, so as to see what it corresponds to, or to verify accuracy by examining the illustration that depicts it.
- The most original aspect of *The Visual Dictionary* is the fact that the illustrations enable the user to find a word even if he or she only has a vague idea of what it is. The dictionary is unique in this feature, as consultation of any other dictionary requires the user first to know the word.

TITLE

Its definition is found below. If the title refers to information that continues over several pages, after the first page it is shown in a shaded tone with no definition.

TERM

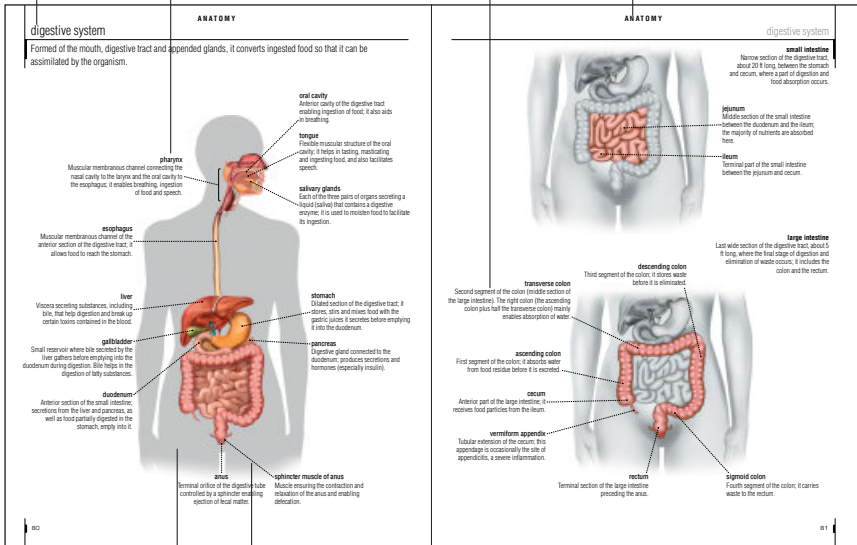
Each term appears in the index with a reference to the pages on which it appears.

DEFINITION

It explains the inherent qualities, function, or characteristics of the element depicted in the illustration.

SUB-THEME

These are shown at the end of the preliminary pages along with their definitions. They are then repeated on each page of a section, but without the definition.



ILLUSTRATION

It is an integral part of the visual definition for each of the terms that refer to it.

NARROW LINES

These link the word to the item indicated. Where too many lines would make reading difficult, they have been replaced by color codes with captions or, in rare cases, by numbers.

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human cell

Smallest living structure and constituent unit of human beings; the sizes and shapes of cells vary according to their function.

Golgi apparatus

Organelle composed of a series of pockets that receive proteins produced by the ribosomes and either transport them outside the cell or to other organelles.

endoplasmic reticulum

Organelle formed of walls to which the ribosomes are attached.

mitochondrion

Ovoid organelle that produces the energy necessary for cell activity.

centriole

Structure consisting of small rods that play a major role in cell division. Each cell usually contains two.

ribosome

Organelle, free or attached to the endoplasmic reticulum, producing proteins essential to the constitution and functioning of living beings.

nuclear envelope

Envelope formed of two layers surrounding the nucleus and pierced with small holes, which allow exchanges between the cytoplasm and the nucleus.

lysosome

Small spheroid organ containing enzymes that break down food, spent cell components and other harmful substances that have been absorbed.

vacuole

Spherical cavity containing water, waste and various substances required by the cell.

cytoplasm

Clear gelatinous substance surrounding the various cellular structures.

chromatin

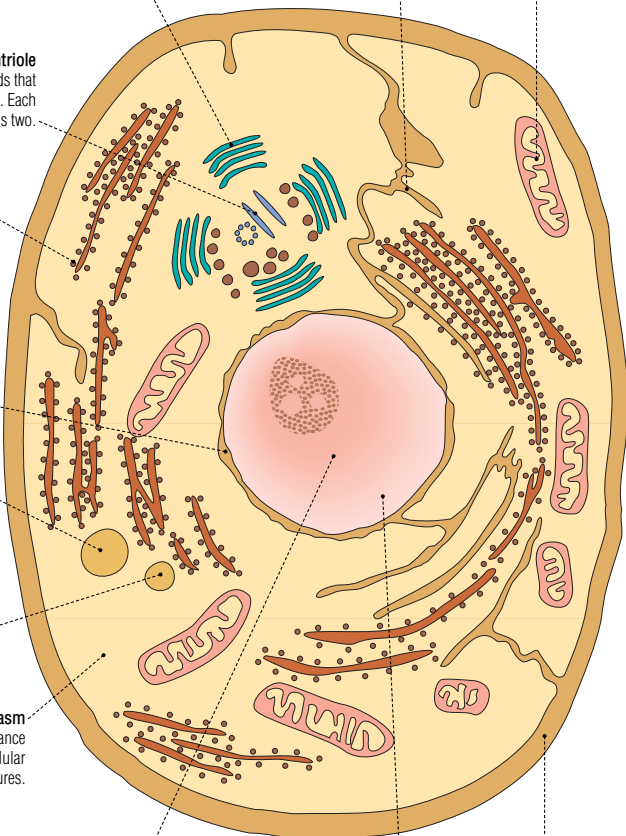
Mass of very fine filaments of DNA, the genetic material of the cell; it is compressed into chromosomes during cell division.

nucleus

Organelle containing a cell's genes and controlling its activities.

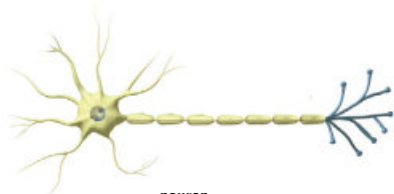
cell membrane

The cell's flexible outer casing; it separates the cell from the surrounding environment and works as a filter to control the entry and exit of certain substances.



examples of cells

The human body contains some 200 types of cells. All cells have the same general structure but are adapted according to their function in the body.



neuron

Cell that receives, carries, and transmits messages in the form of nerve impulses.



photoreceptor

Nerve cell in the retina that converts light into nerve impulses; these are transmitted to the cerebrum, which decodes them and forms an image.



spermatozoon

Mature and mobile reproductive male cell produced by the testicle; the main constituent of the sperm used to fertilize an egg.



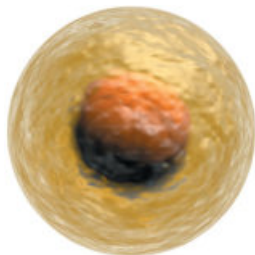
osteocyte

Irregularly shaped cell making up bony tissue.



red blood cell

Blood cell that transports oxygen and contains a pigment (hemoglobin); red blood cells are the most numerous.



egg

Mature female reproductive cell produced by the ovary, which, after fertilization by a spermatozoon, enables the embryo to develop.



neutrophil

Blood cell that plays an essential role the body's defense, characterized by a nucleus with several lobes and a granular cytoplasm.

muscle fiber

Component tissue of the muscle; it includes several nuclei and numerous parallel filaments that can contract themselves.

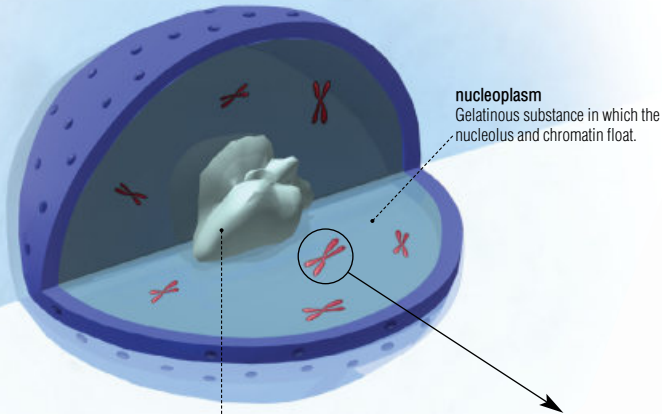


DNA

Complex molecule containing genes, contained in cell nuclei and formed of strands of nucleotides arranged in a double helix.

nucleus

Organelle containing a cell's genes and controlling its activities.



nucleoplasm

Gelatinous substance in which the nucleolus and chromatin float.

nucleolus

Small spherical body located inside the nucleus, within which the ribosomes, or protein-synthesizing structures, are produced.

chromosome

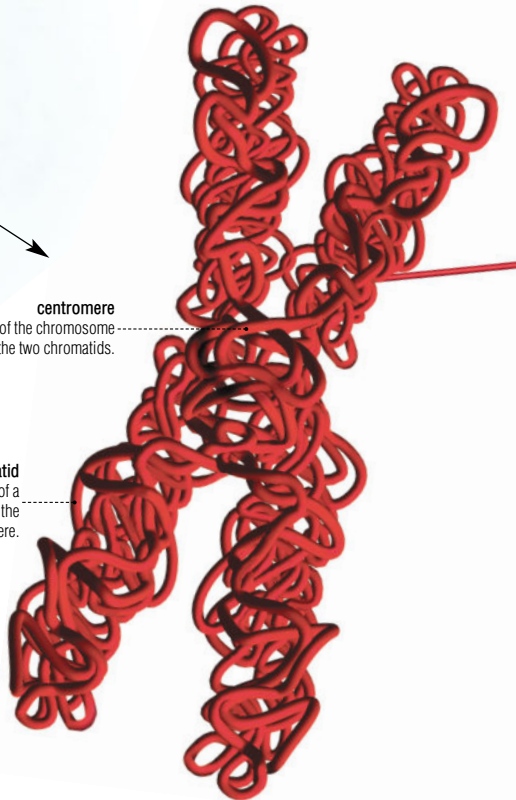
Element, composed of DNA and proteins, that carries genetic information. Human cells have 46, which can be observed only during cell division.

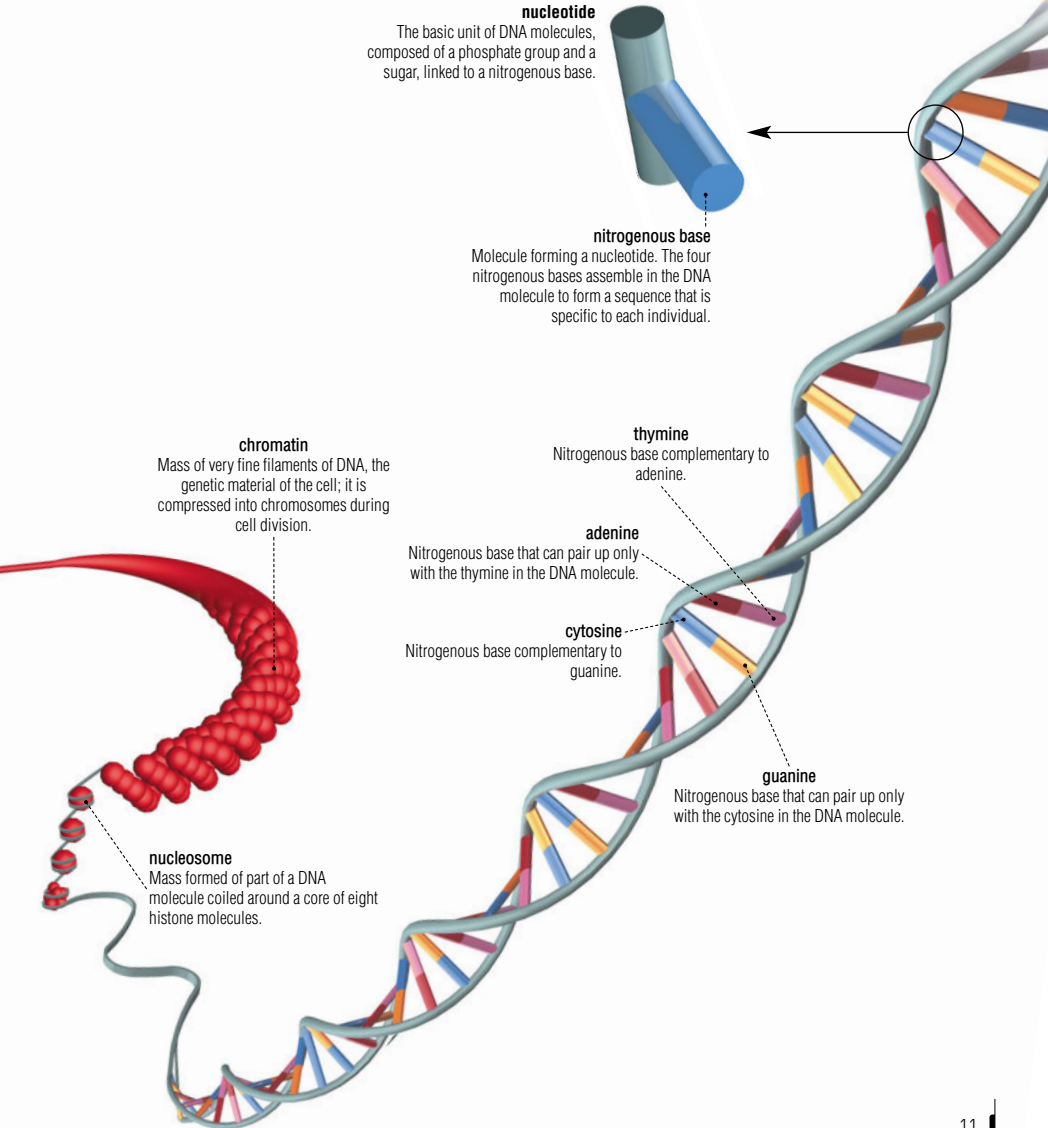
centromere

Short section of the chromosome joining the two chromatids.

chromatid

Each of the two strands of a chromosome. During cell division, the two strands separate at the centromere.



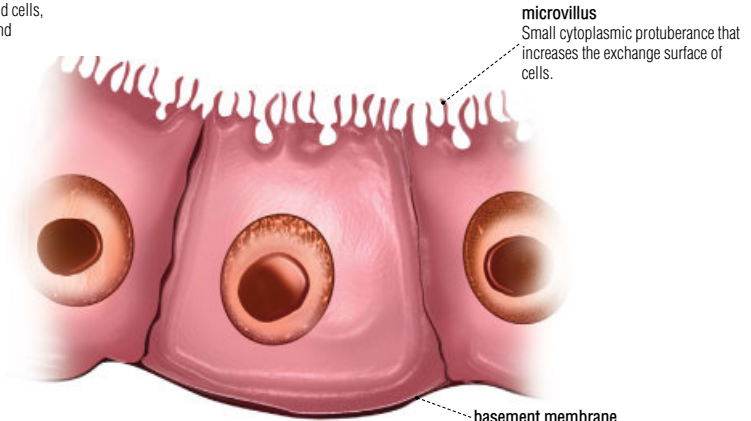


tissues

Combinations of cells and molecules making up the organs of the human body.

epithelial tissue

Tissue, formed of closely packed cells, that lines most of the internal and external surfaces of the body.



microvilli

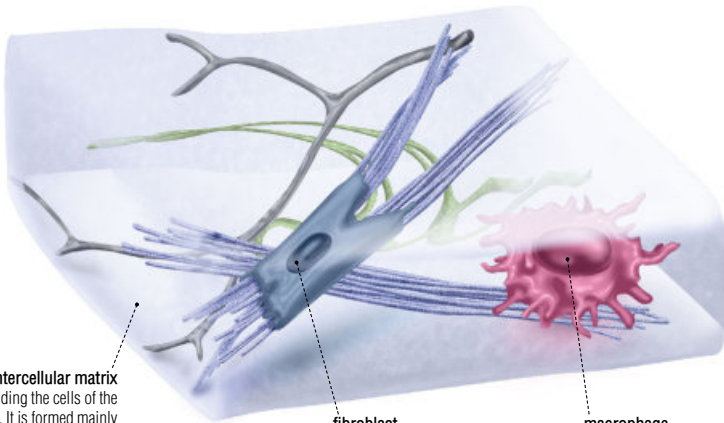
Small cytoplasmic protuberance that increases the exchange surface of cells.

basement membrane

Membrane on which epithelial cells sit and that connects them with the underlying vascular tissues.

connective tissue

Tissue formed of cells floating in an abundant matrix. Cartilage, bone tissue, and most of the tissues that make up the organs are connective tissues.



intercellular matrix

Substance surrounding the cells of the connective tissue. It is formed mainly of liquid and fibers.

fibroblast

Cell that manufactures the fibers in connective tissue.

macrophage

Cell whose main function is to destroy undesirable elements (foreign bodies, debris, dead cells).

muscle tissue

Tissue forming muscles, which contracts in response to a nerve impulse sent by the central nervous system.

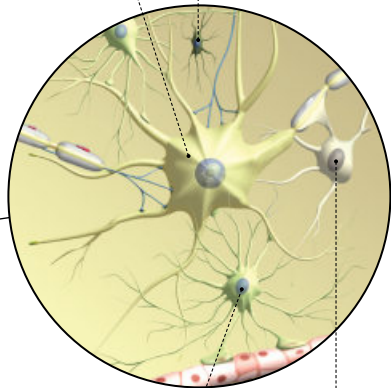
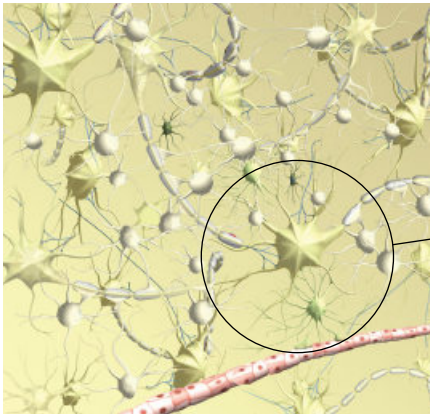
**nerve tissue**

Tissue specializing in transmission of nerve impulses. It is composed of neurons and glial cells, which protect and nourish the neurons.

neuron
Nerve cell that receives, carries, and transmits messages in the form of nerve impulses.

microgliaocyte

Very small glial cell that rids the nerve tissue of foreign bodies and dead cells.

**astrocyte**

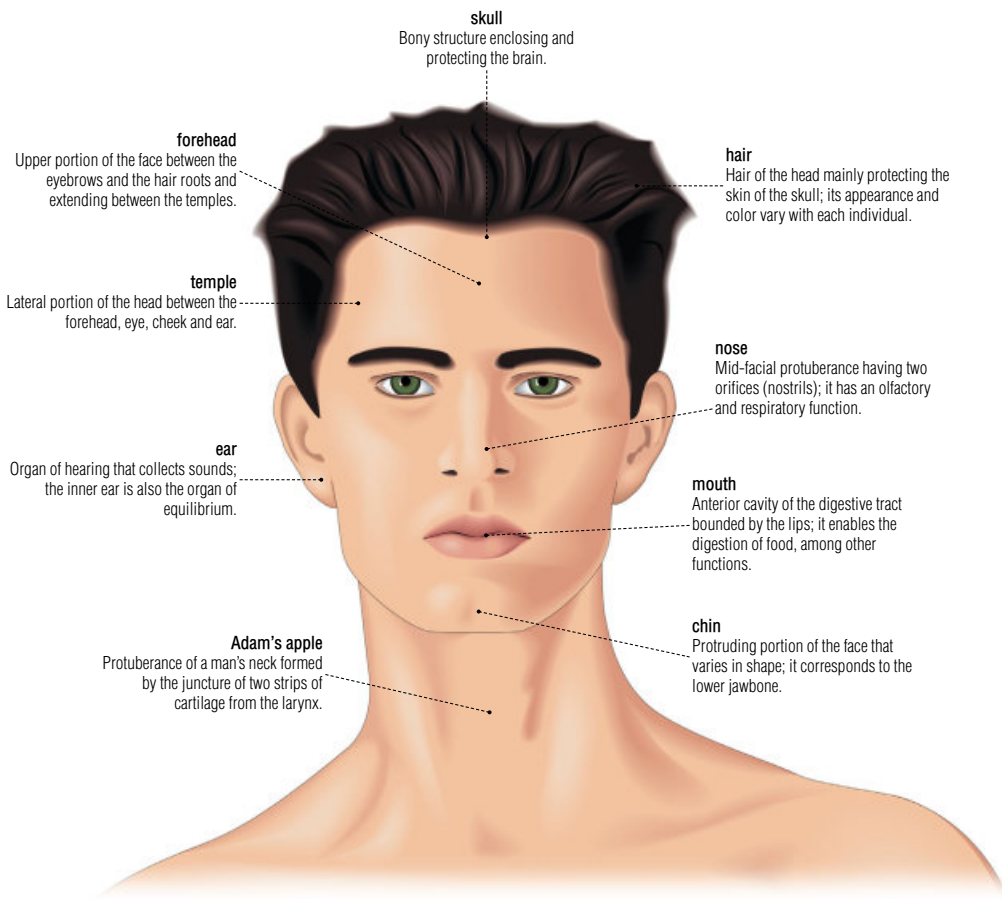
Glial cell whose numerous extensions terminate in feet that form barriers between neurons and blood capillaries.

oligodendrocyte

Glial cell that plays a role in formation of the myelin sheath of the neurons in the central nervous system.

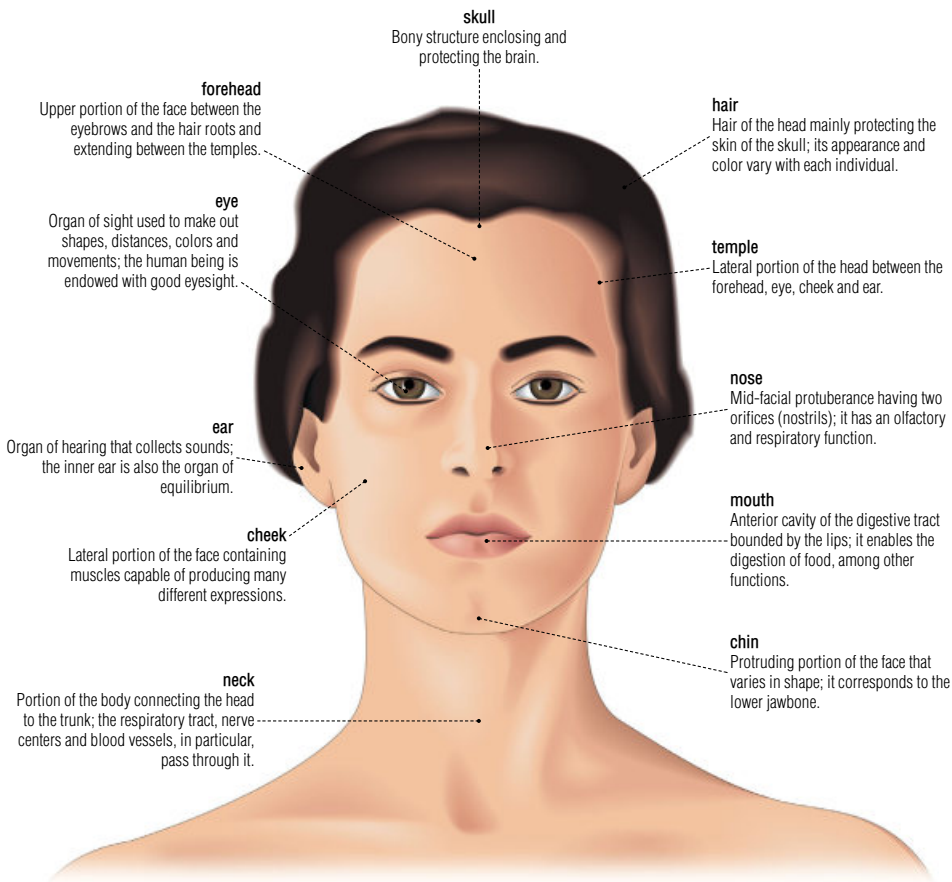
face

Front portion of the head bounded by the hair, ears and chin.



face

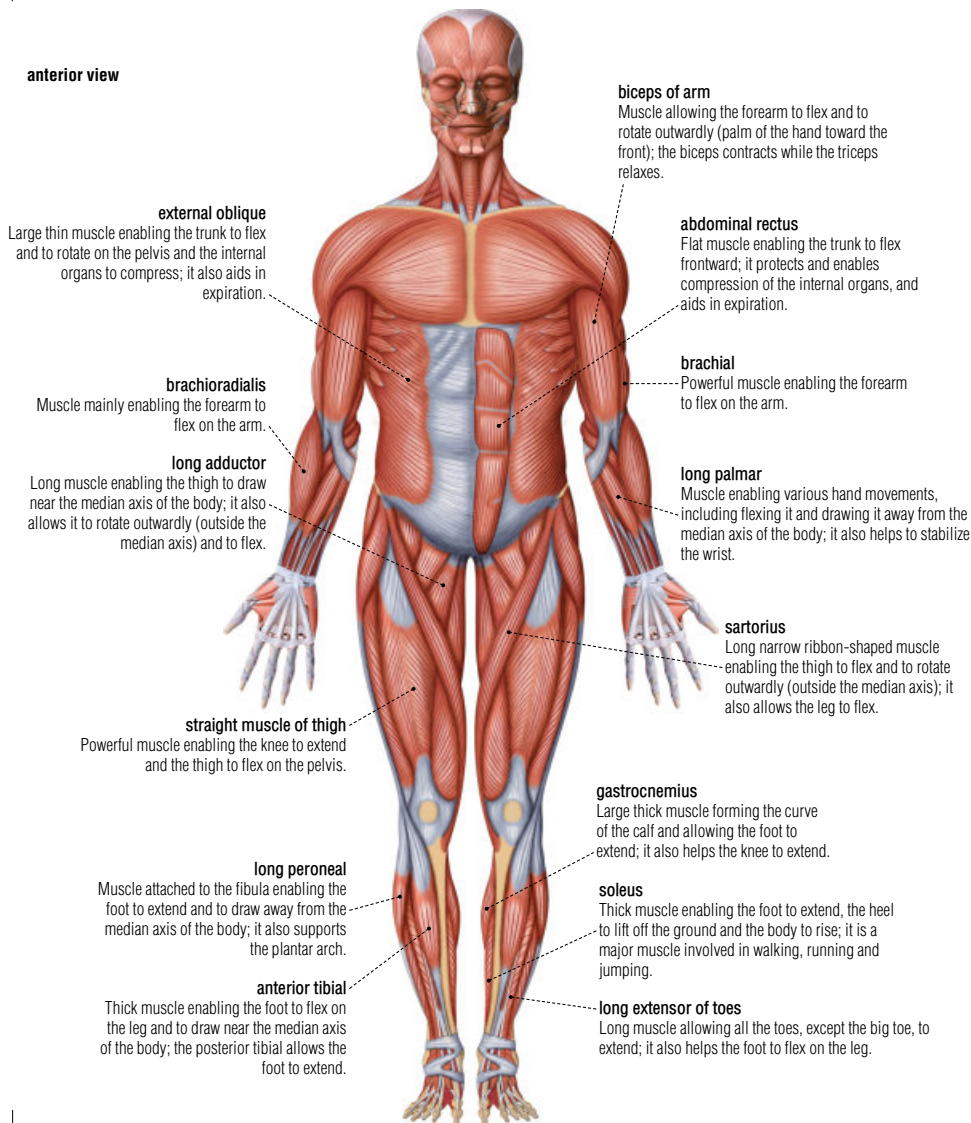
Front portion of the head bounded by the hair, ears and chin.

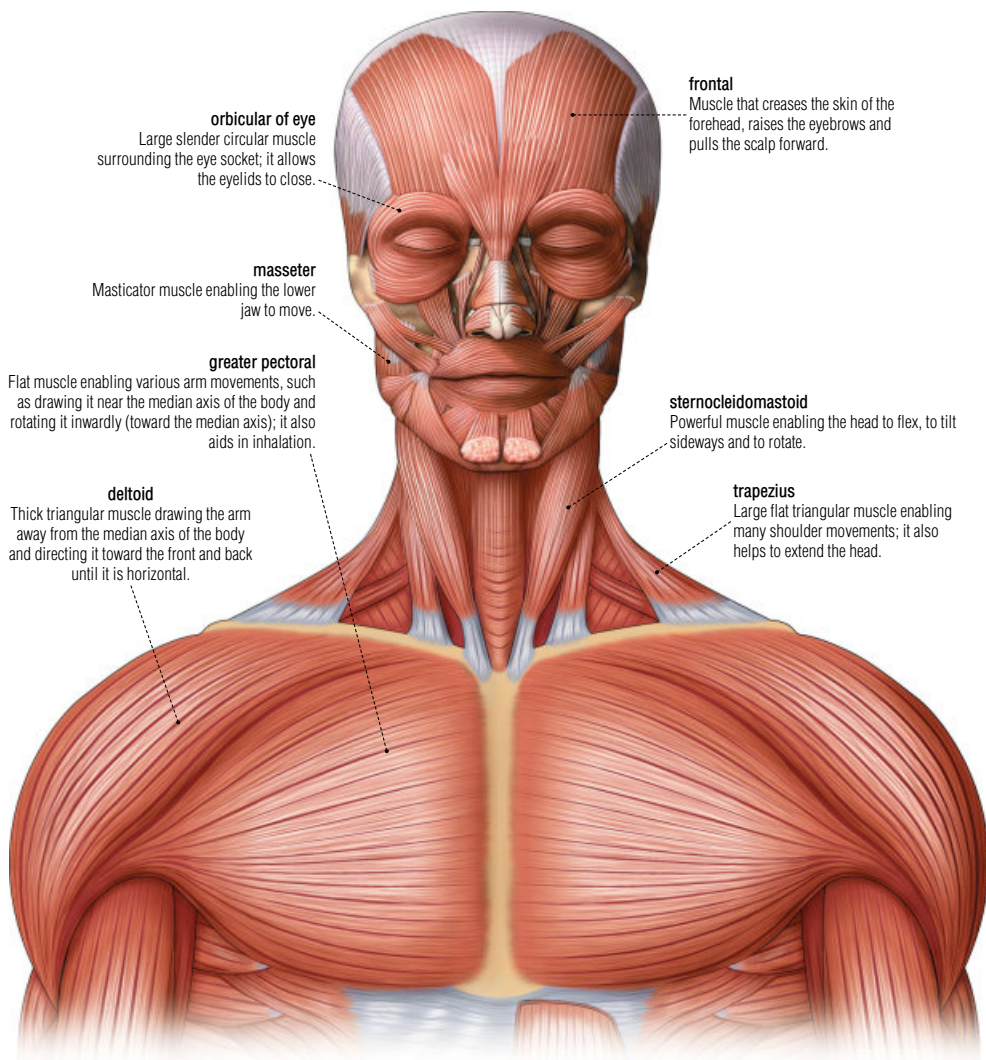


muscles

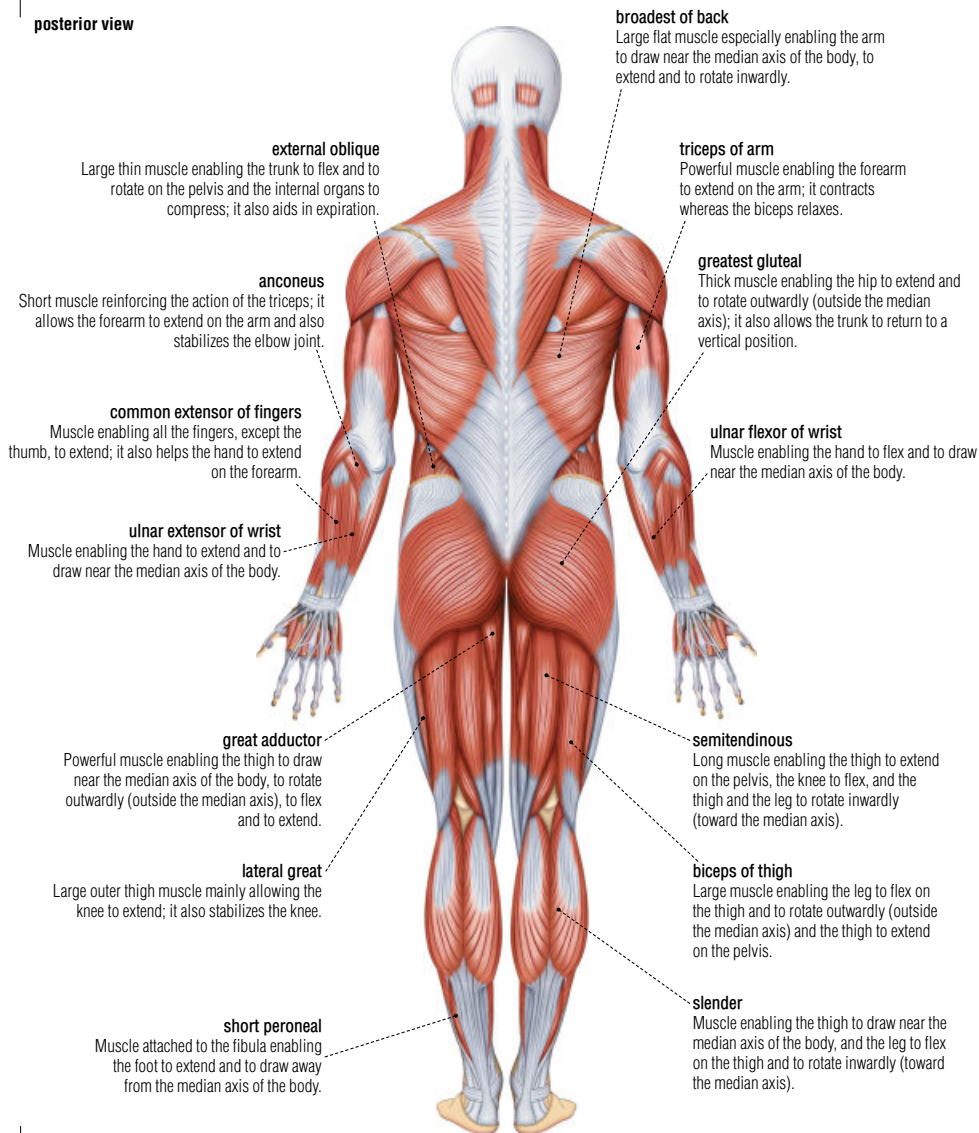
Contractile organs made of fibers allowing the body to move and maintain its posture; the human body has over 600 muscles.

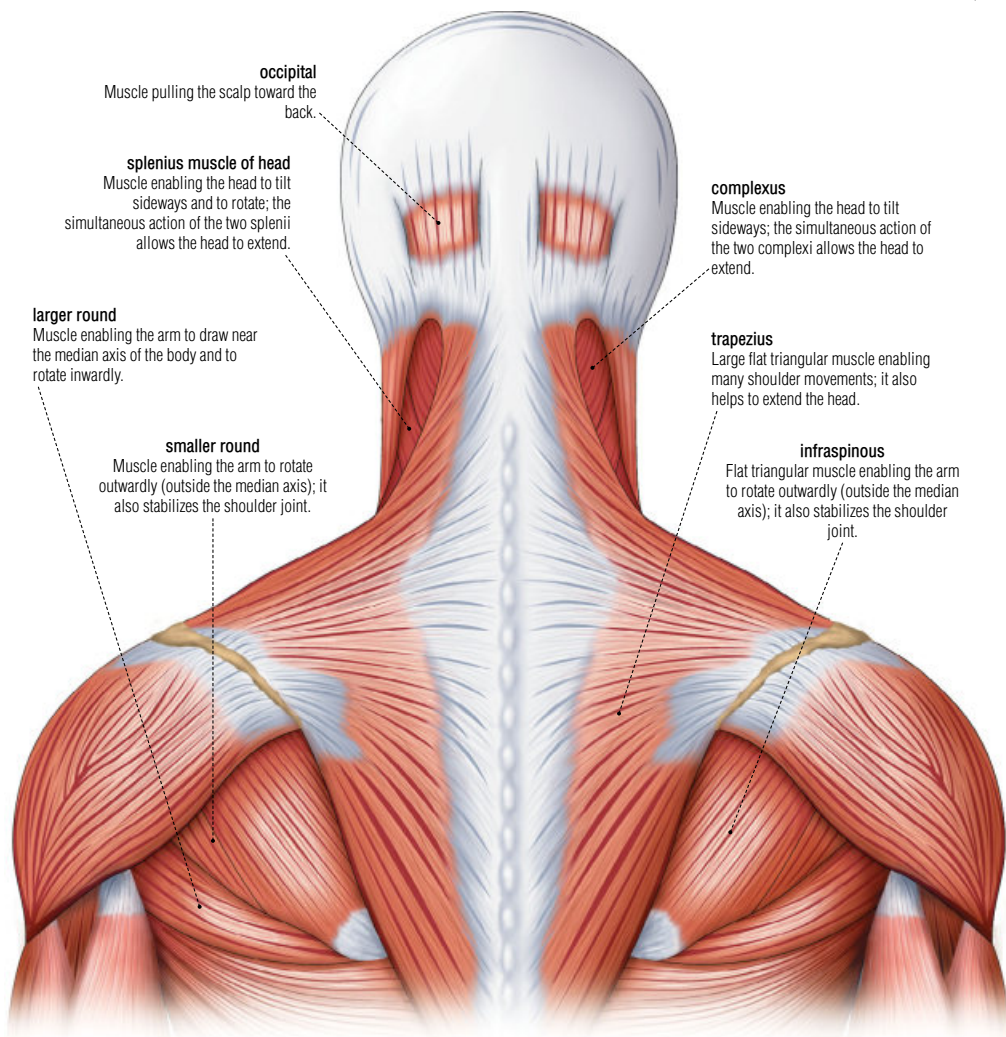
anterior view



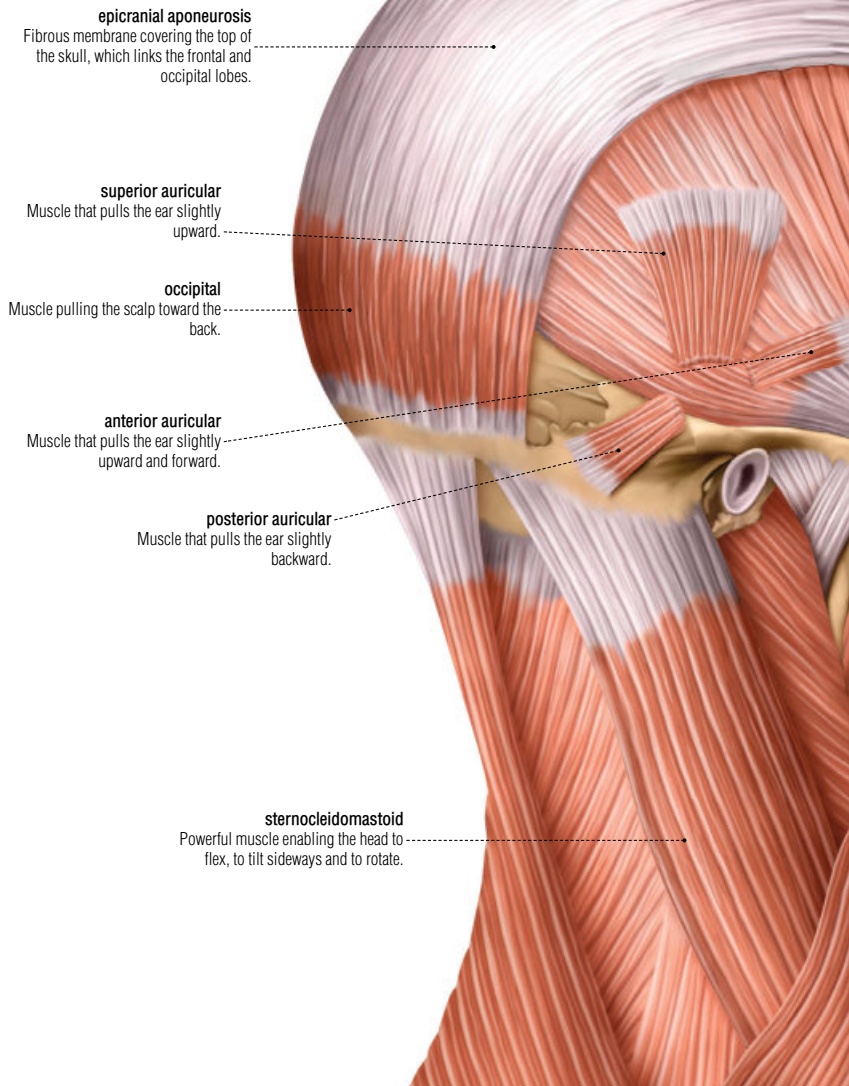


posterior view





muscles of head: lateral view

**epicranial aponeurosis**

Fibrous membrane covering the top of the skull, which links the frontal and occipital lobes.

superior auricular

Muscle that pulls the ear slightly upward.

occipital

Muscle pulling the scalp toward the back.

anterior auricular

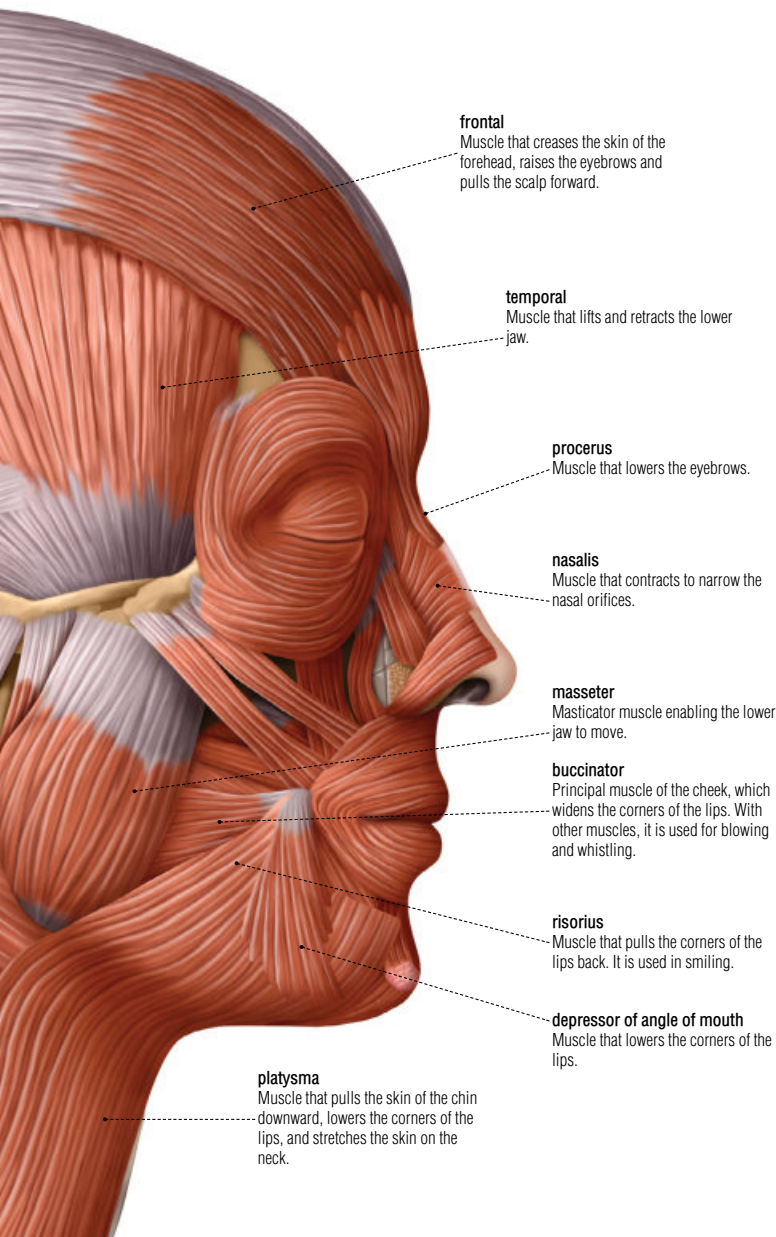
Muscle that pulls the ear slightly upward and forward.

posterior auricular

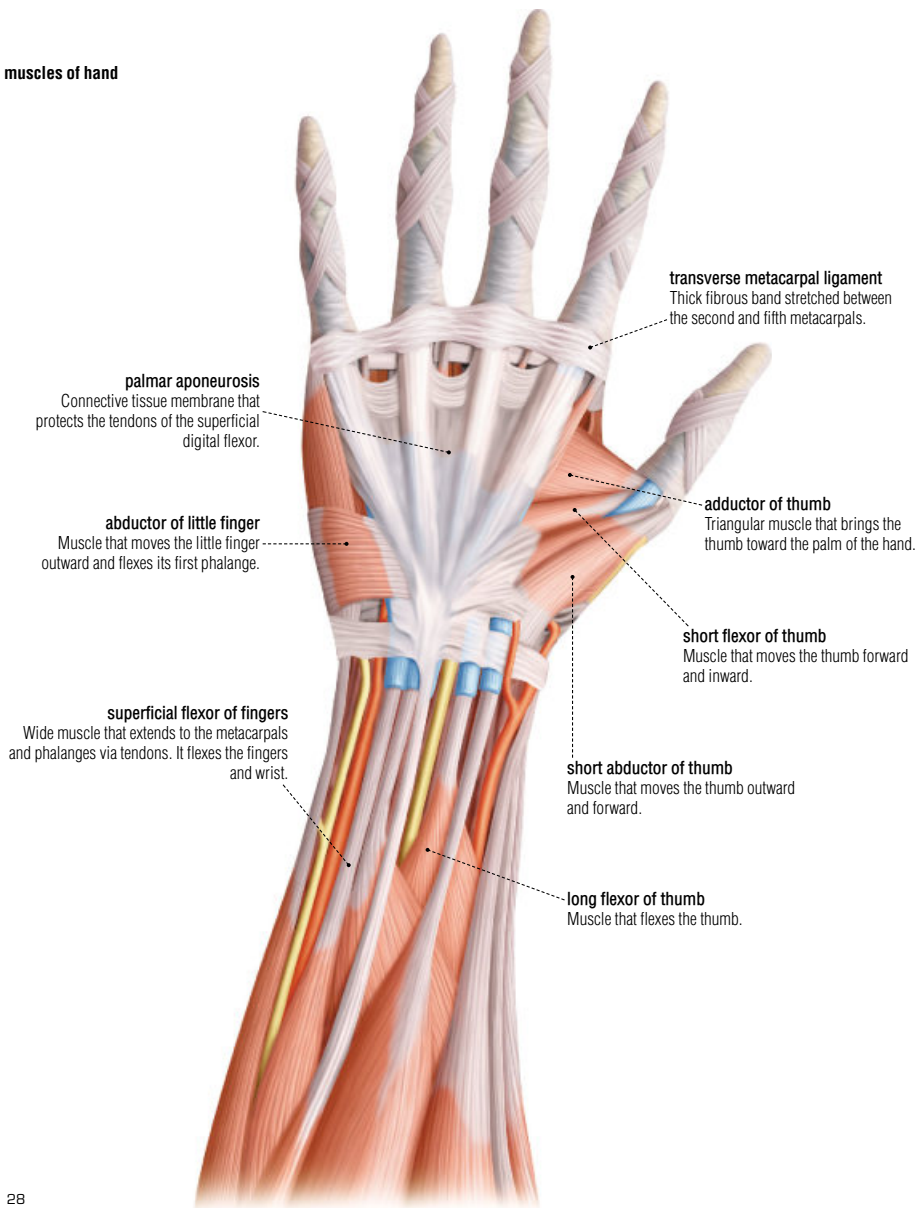
Muscle that pulls the ear slightly backward.

sternocleidomastoid

Powerful muscle enabling the head to flex, to tilt sideways and to rotate.



muscles of hand



parts of a striated muscle

origin

Point where a striated muscle is attached to a bone that is not set in motion by muscle contraction.

belly

Central part of the muscle between the origin and the insertion. A muscle may have one or several bellies.

tendon

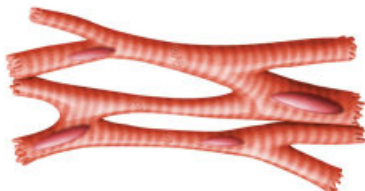
Fibrous tissue connecting the muscle to the bone.

insertion

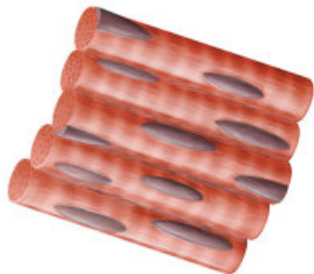
Point where a striated muscle is attached to a bone that is set in motion by muscle contraction.

types of muscles

There are three main types of muscles, each with specific anatomical and functional characteristics.

**cardiac muscle**

Muscle formed of branching strands of muscle fibers with one or two nuclei. Cardiac muscles control the heartbeat.

**striated muscle**

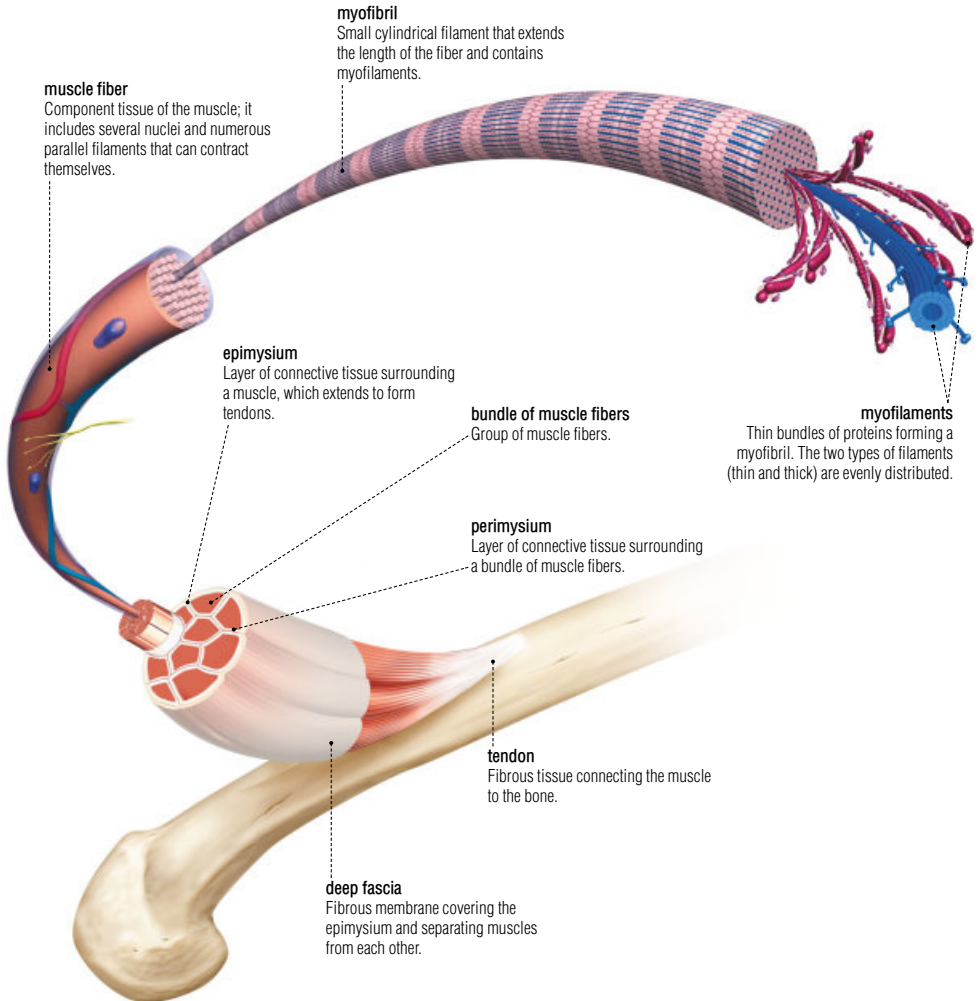
Muscle composed of muscle fibers with multiple nuclei grouped in dense bundles. Striated muscles control the skeleton's voluntary movements.

**smooth muscle**

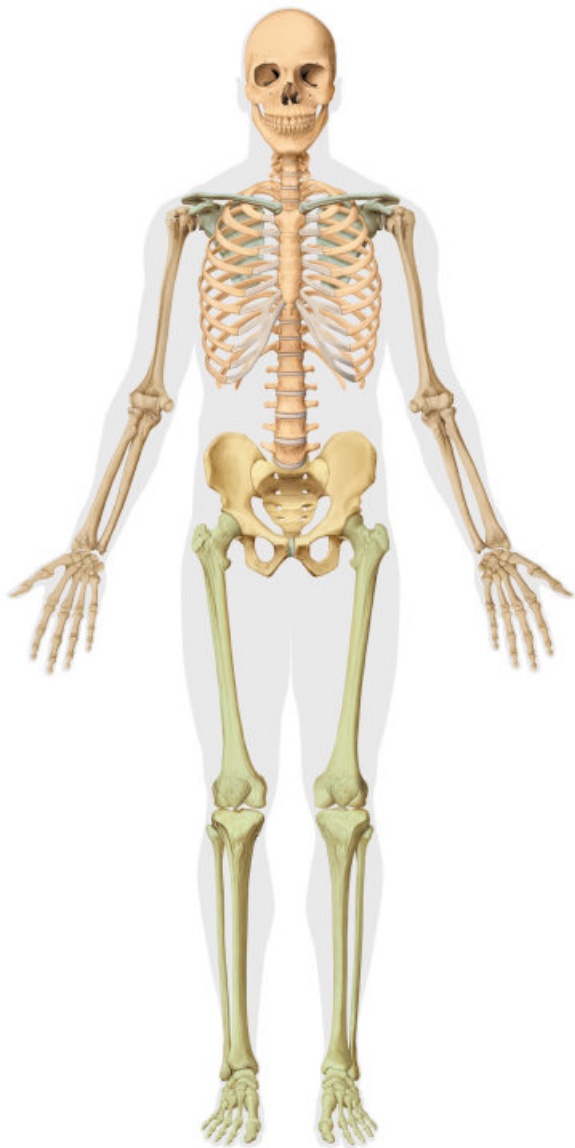
Muscle composed of small muscle fibers with a single nucleus. Smooth muscles control the involuntary movements of internal organs.

muscles

structure of a striated muscle



All the articulated bones (about 200), of varying sizes and shapes, forming the frame of the body, supporting the muscles and protecting the vital organs.

**axial skeleton**

The group of bones that support the body and protect the vital organs.

upper limbs

The group of bones forming the shoulders, upper arms, forearms, and hands, and which are involved, among other things, in prehension.

shoulder girdle

Group of bones linking the upper limbs to the axial skeleton.

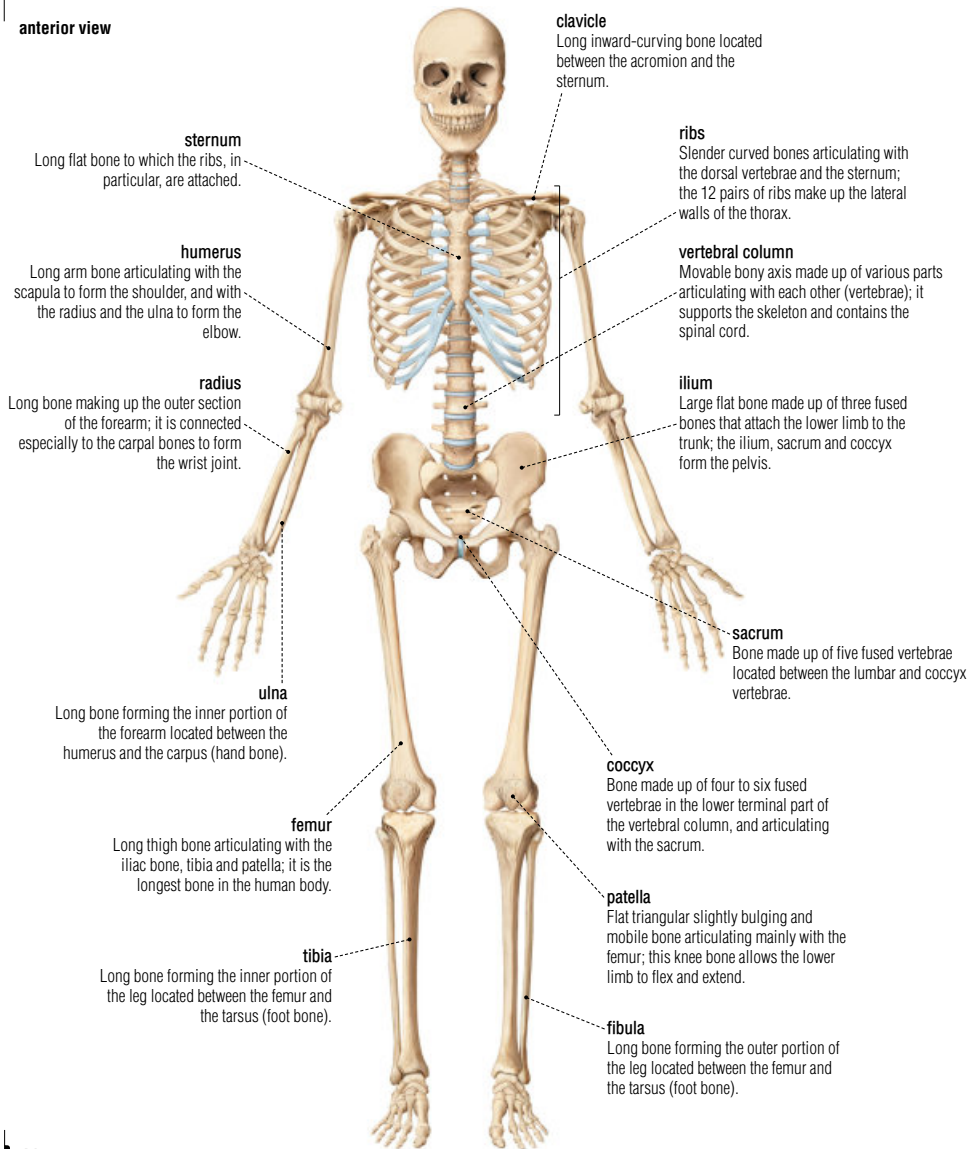
pelvis

Group of bones linking the lower limbs to the axial skeleton.

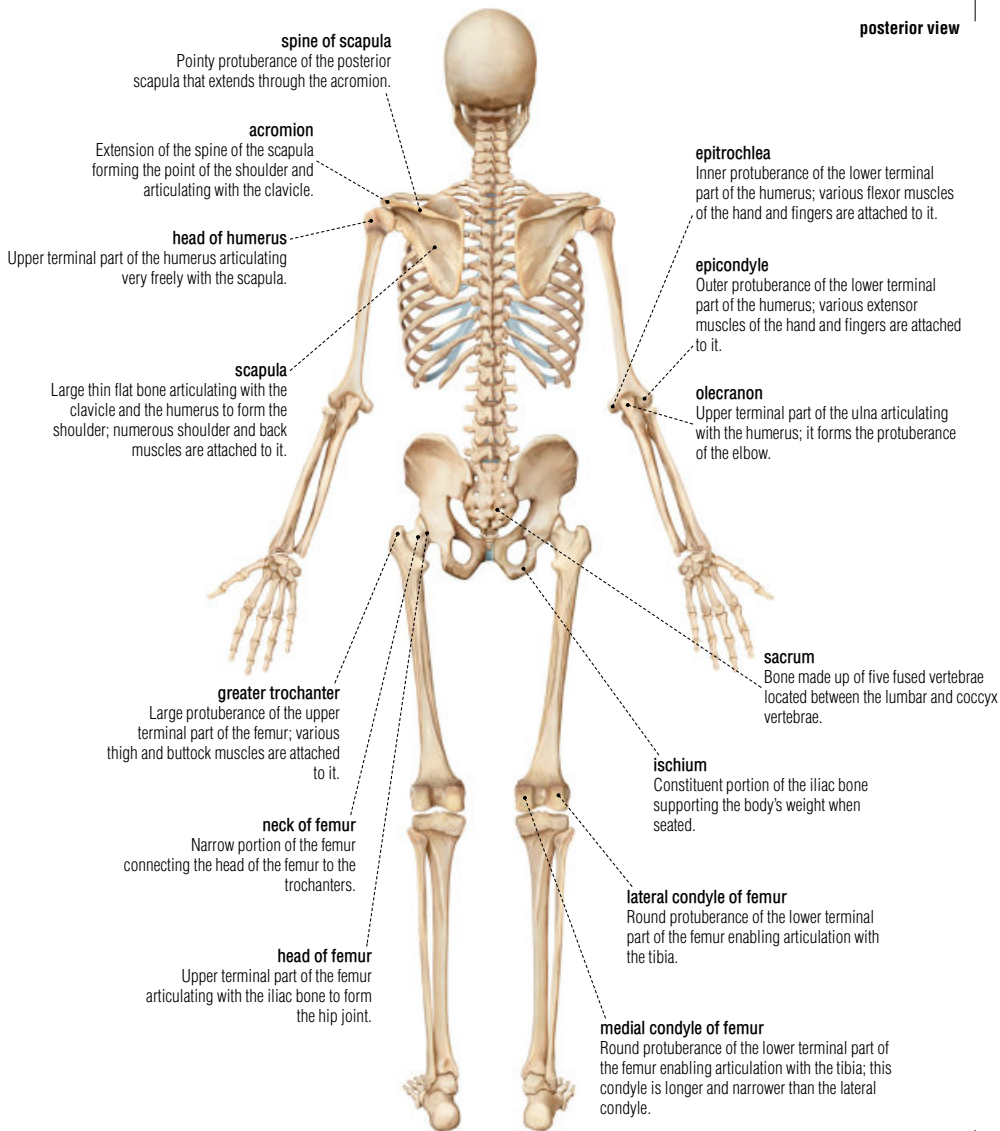
lower limbs

Group of bones forming the thighs, lower legs, and feet, and which make it possible to walk.

anterior view



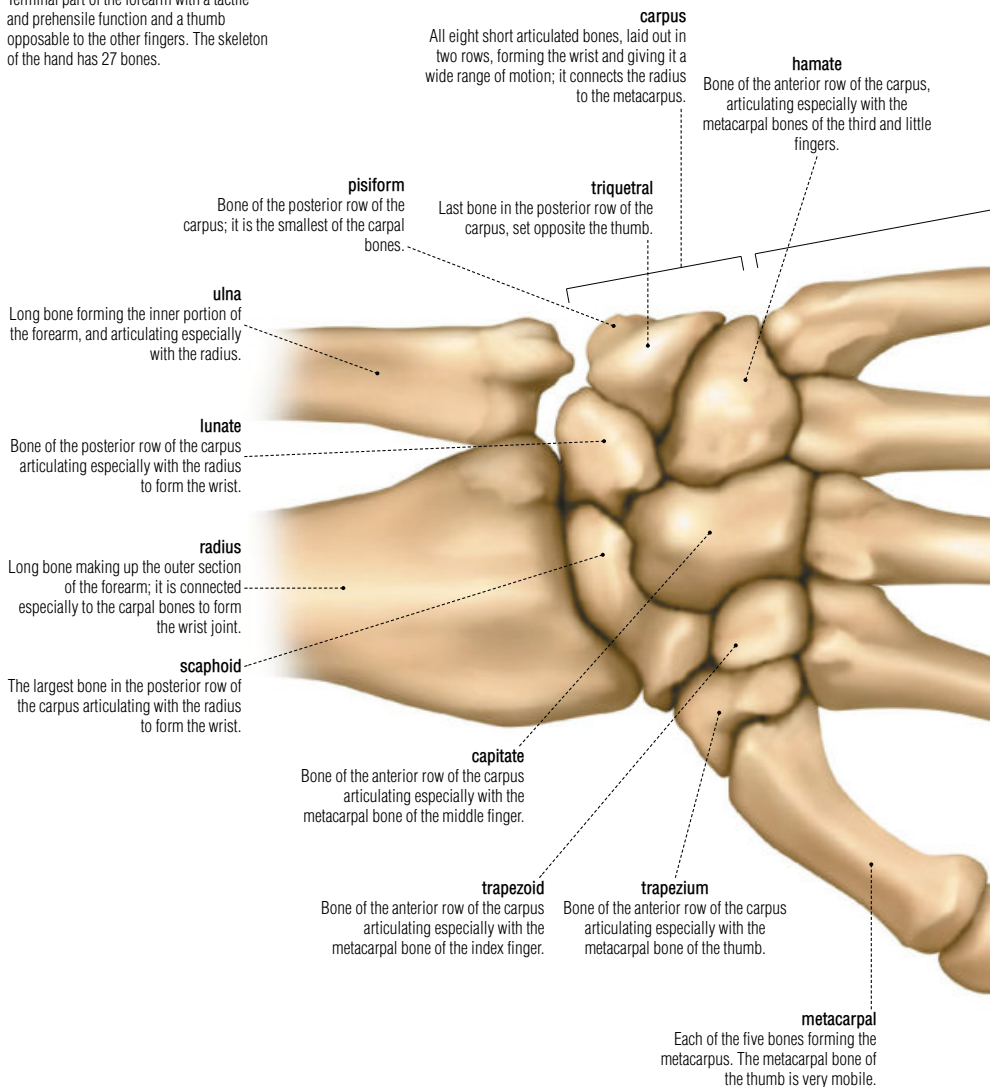
posterior view



skeleton

hand

Terminal part of the forearm with a tactile and prehensile function and a thumb opposable to the other fingers. The skeleton of the hand has 27 bones.

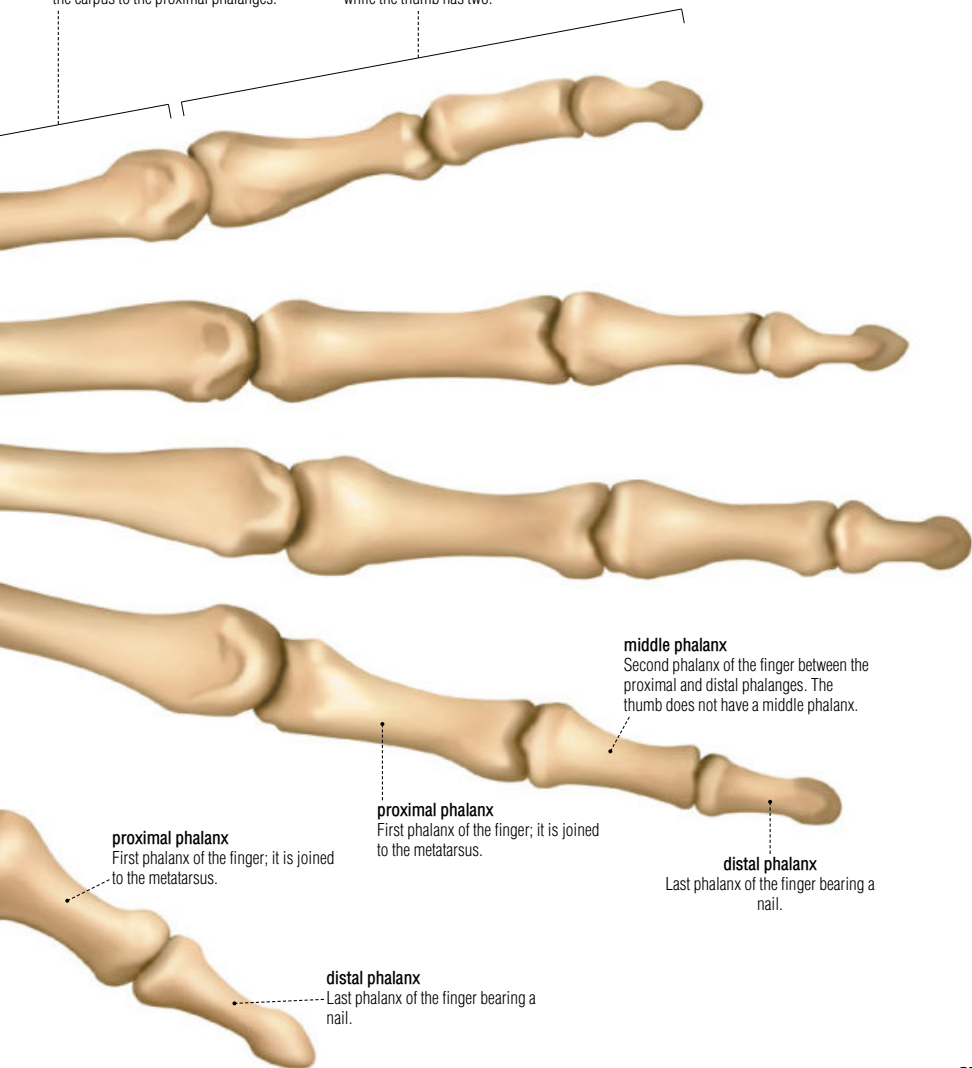


metacarpus

All five long bones forming the palm of the hand; they link the anterior row of the carpus to the proximal phalanges.

phalanges

Articulated bones forming the skeleton of the fingers; each finger has three, while the thumb has two.



skeleton

foot

Terminal part of the leg enabling upright stance and walking. The skeleton of the foot is made up of 26 bones.

tibia

Long bone forming the inner portion of the leg; it is connected especially to the tarsus to form the ankle joint.

fibula

Long bone forming the outer portion of the leg; it is connected especially to the bones of the tarsus to form the ankle joint.

tarsus

All seven short articulated bones, laid out in two rows, making up the heel and the ankle; it connects the tibia and the fibula to the metatarsus.

talus

Short bone of the tarsus that, with the calcaneus, ensures rotation of the ankle and, with the tibia and fibula, flexion and extension of the foot.

2nd cuneiform

Bone of the anterior row of the tarsus articulating especially with the metatarsal bone of the second toe and the scaphoid bone.

navicular

Bone of the posterior row of the tarsus articulating especially with the talus and the three cuneiforms.

calcaneus

Bone of the posterior row of the tarsus forming the protuberance of the heel and supporting a large portion of the body's weight; the Achilles tendon is attached to it.

cuboid

Bone of the anterior row of the tarsus articulating especially with the metatarsal bones of the two last toes.

lateral cuneiform

Bone of the anterior row of the tarsus articulating especially with the metatarsal bone of the third toe.

metatarsus

All five long bones that make up the sole of the foot; it connects the anterior row of the tarsus to the proximal phalanges.

proximal phalanx

First phalanx of the toe; it is joined to the metatarsus.

1st cuneiform

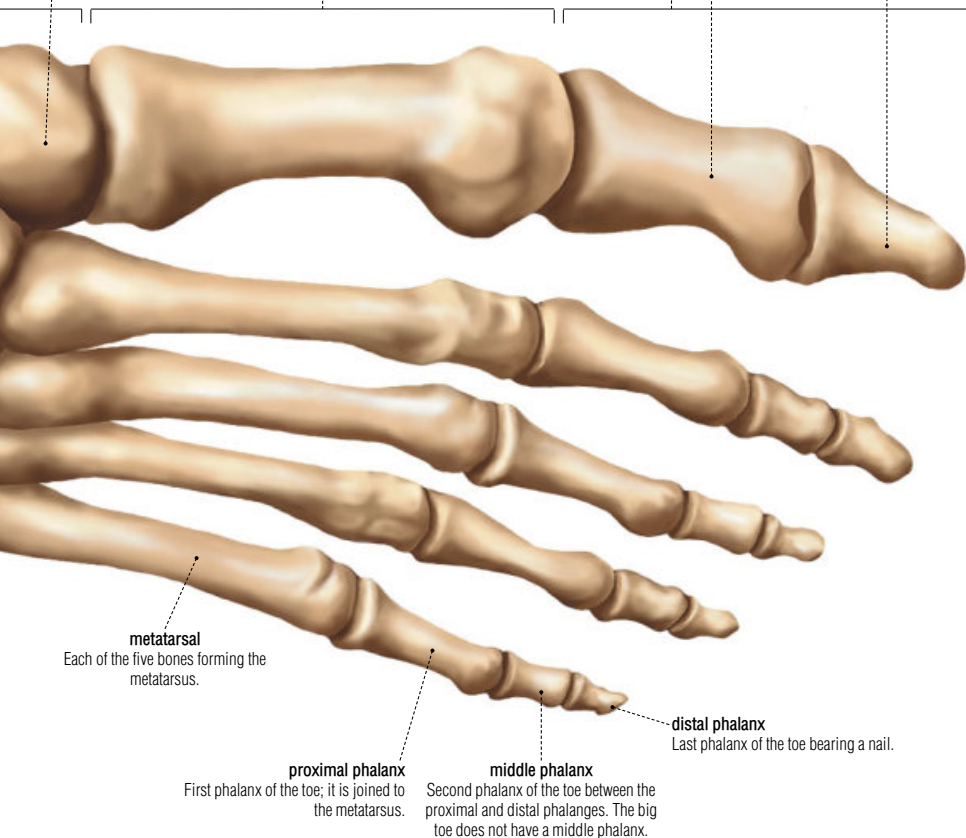
Bone of the anterior row of the tarsus articulating especially with the metatarsal bone of the big toe and the scaphoid bone.

phalanges

Articulated bones forming the skeleton of the toes. Each toe has three, while the big toe has only two.

distal phalanx

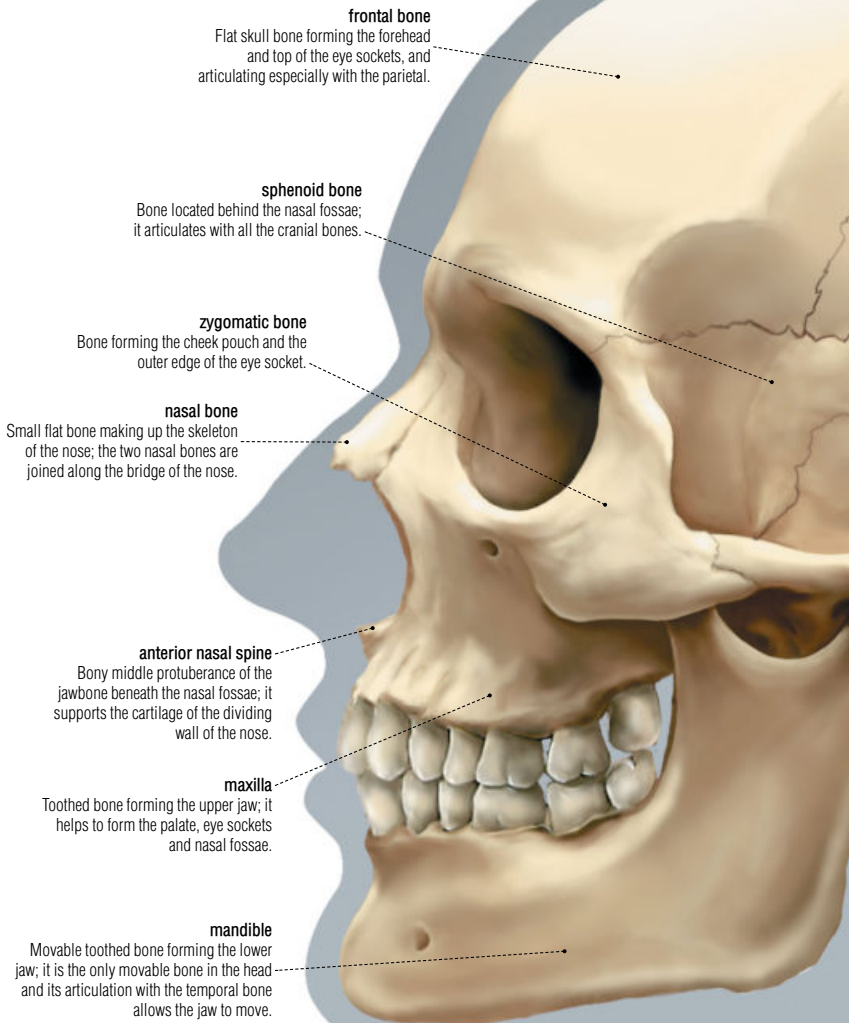
Last phalanx of the toe bearing a nail.

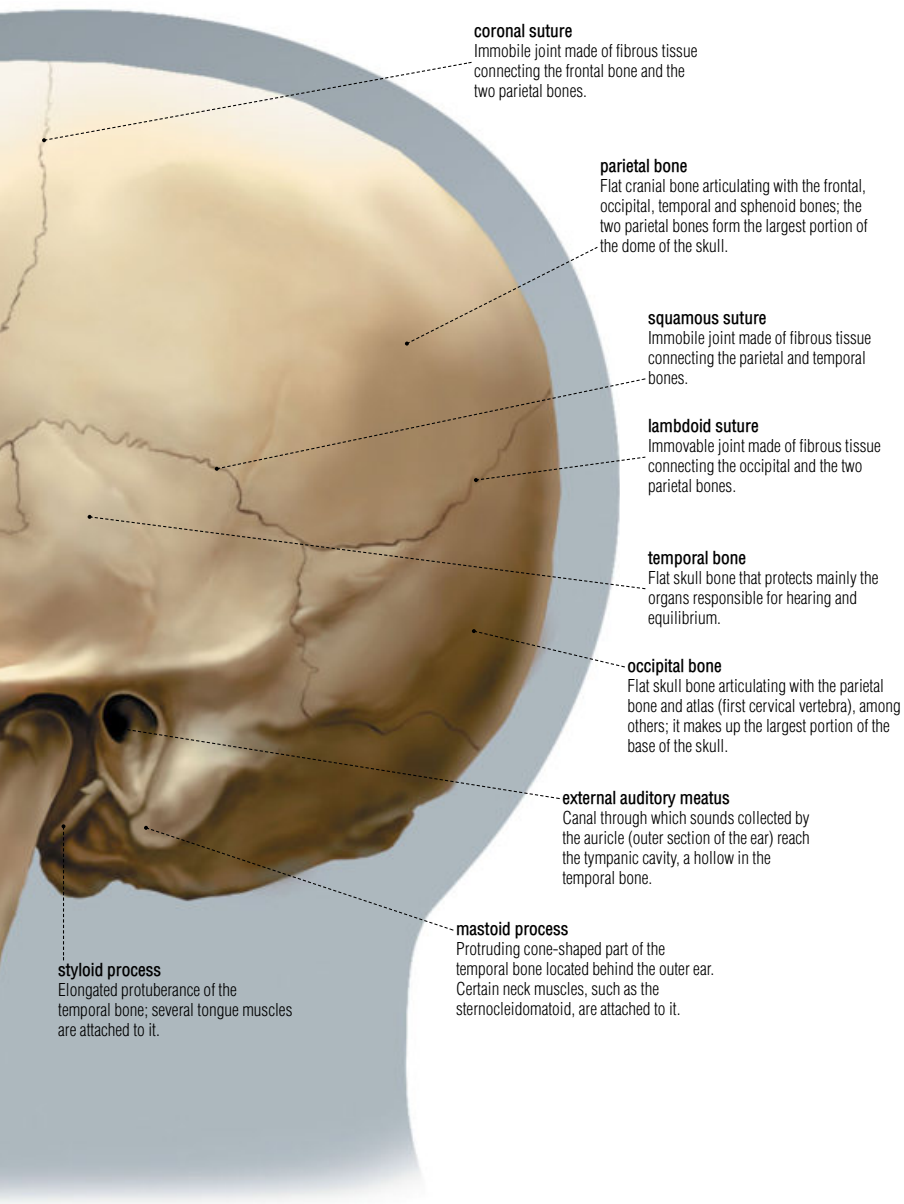


skeleton

lateral view of skull

Skull: bony structure enclosing and protecting the brain. The eight cranial bones in an adult are fused to each other by means of sutures.





bottom of the skull**occipital bone**

Flat skull bone articulating with the parietal bone and atlas (first cervical vertebra), among others; it makes up the largest portion of the base of the skull.

foramen magnum

Opening in the occipital bone through which the medulla oblongata passes.

carotid canal

Opening in the temporal bone through which the internal carotid artery passes.

sphenoid bone

Bone located behind the nasal fossae; it articulates with all the cranial bones.

zygomatic process

Projection of the temporal bone that forms the upper edge of the cheek.

zygomatic bone

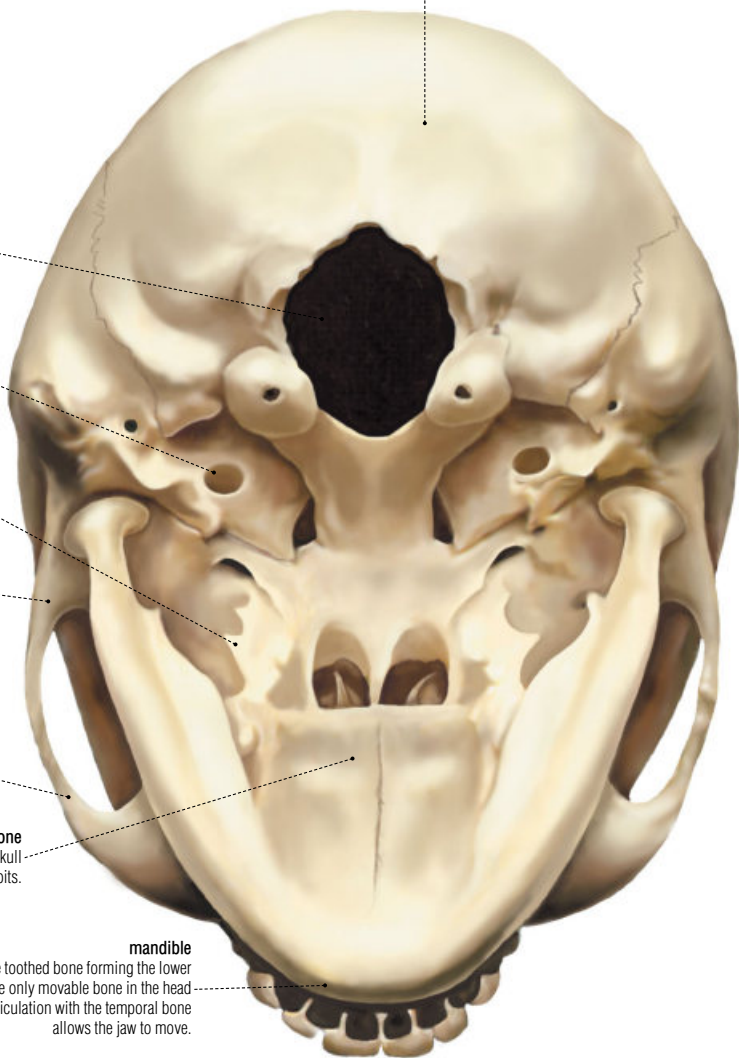
Bone forming the cheek pouch and the outer edge of the eye socket.

palatine bone

Bone spanning the width of the skull located behind the orbits.

mandible

Movable toothed bone forming the lower jaw; it is the only movable bone in the head and its articulation with the temporal bone allows the jaw to move.



lateral view of child's skull

The skull bones of the fetus and child are separated by membranous spaces (fontanelles). They disappear during the course of ossification.

anterior fontanelle

Membranous space between the frontal and two parietal bones; it closes usually at the age of two or three years. This is the largest of the fontanelles.

parietal bone

Flat cranial bone fusing especially to the frontal and occipital bones during the growth years.

coronal suture

Joint connecting the frontal and parietal bones on each side of the skull; it ossifies during the growth years (the anterior fontanelle closes up).

frontal bone

Flat skull bone forming the forehead and top of the eye sockets, and articulating especially with the parietal.

posterior fontanelle

Membranous space between the occipital and two parietal bones; it closes at about the age of two or three months. This fontanelle is smaller than the anterior fontanelle.

occipital bone

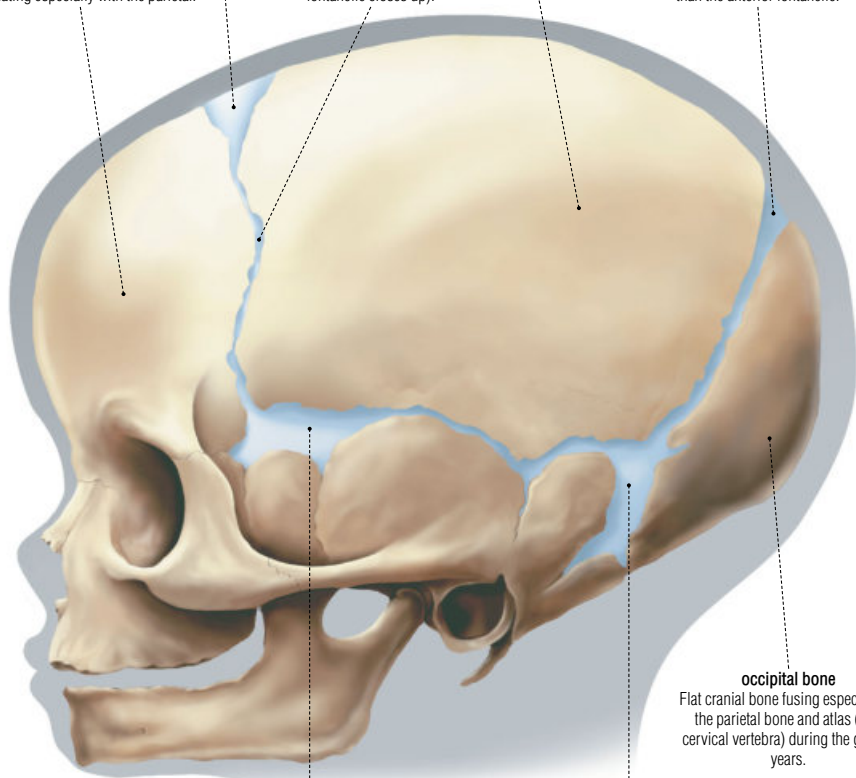
Flat cranial bone fusing especially to the parietal bone and atlas (first cervical vertebra) during the growth years.

sphenoidal fontanelle

Membranous space between the frontal, parietal, temporal and sphenoid bones; it closes at about the age of two or three months.

mastoid fontanelle

Membranous space between the parietal, occipital and temporal bones; it closes at about the age of 18 months. This fontanelle is smaller than the sphenoidal fontanelle.



skeleton

vertebral column

The vertebral column is made up of different kinds of articulated bones (vertebrae) supporting the skeleton and protecting the spinal cord.

cervical vertebra (7)

Bony part of the neck forming the upper terminal part of the vertebral column.

intervertebral disk

Flat rounded cartilaginous structure separating two vertebrae; its elasticity allows the vertebral column to move.

thoracic vertebra (12)

Bony part supporting the ribs located between the cervical and lumbar vertebrae.

lumbar vertebra (5)

Bony part larger than the other vertebrae located between the dorsal vertebrae and the sacrum; it supports a major portion of the body's weight.

sacrum

Bone made up of five fused vertebrae located between the lumbar and coccyx vertebrae.

coccyx

Bone made up of four to six fused vertebrae in the lower terminal part of the vertebral column, and articulating with the sacrum.

atlas

First cervical vertebra supporting the head and supported by the axis.

axis

Second cervical vertebra supporting the atlas; it allows the head to rotate.

intervertebral foramen

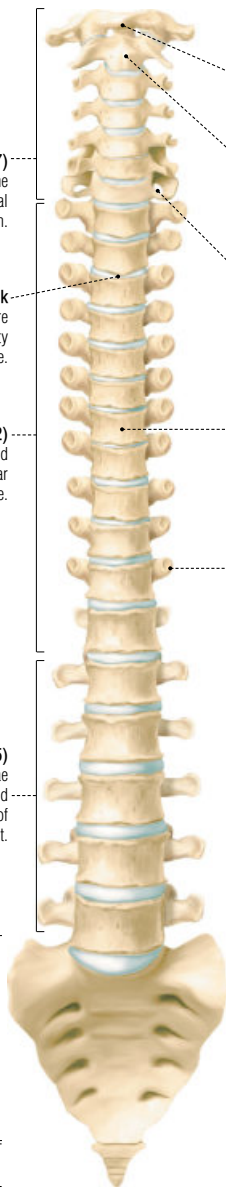
Orifice located between two contiguous vertebrae on each side of the column allowing nerves to pass through.

vertebral body

Anterior bony cylinder of a vertebra surrounded by two transverse processes.

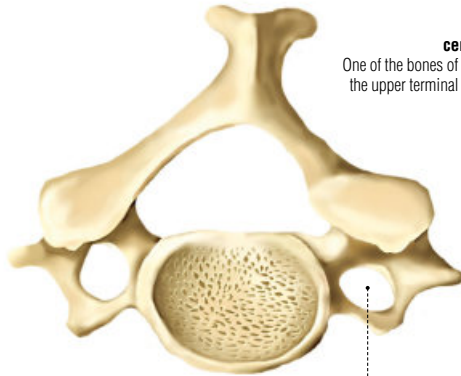
transverse process

Bony protuberance extending laterally from each side of the vertebra; the muscles are attached to it.



cervical vertebra

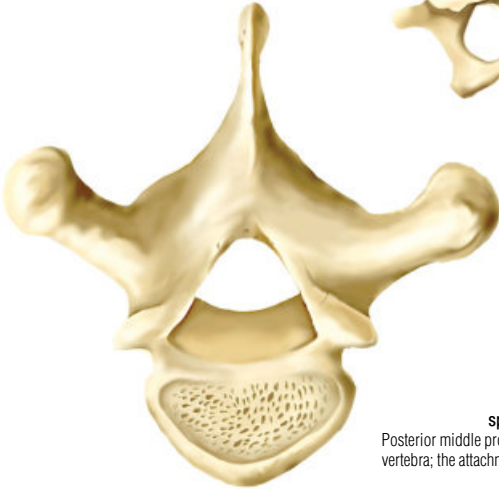
One of the bones of the neck forming the upper terminal part of the spine.

**transverse foramen**

Opening through which blood vessels and nerves pass.

thoracic vertebra

One of the bones of the spine that support the ribs, located between the cervical and lumbar vertebrae.

**lumbar vertebra**

One of the bones of the spine, larger than the other vertebrae, located between the thoracic vertebrae and the sacrum, that support a major portion of the body's weight.

spinous process

Posterior middle protuberance of the vertebra; the attachment point for the back muscles.

transverse process

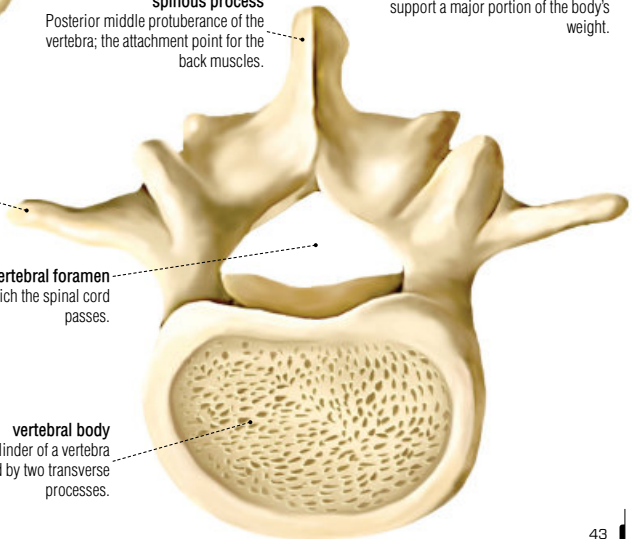
Bony protuberance extending laterally from each side of the vertebra; the muscles are attached to it.

vertebral foramen

Cavity through which the spinal cord passes.

vertebral body

Anterior bony cylinder of a vertebra surrounded by two transverse processes.



skeleton

intervertebral joints

Elements that join the vertebrae together in such a way that the spine can be mobile and flexible.

transverse process

Bony protuberance extending laterally from each side of the vertebra; the muscles are attached to it.

intervertebral foramen

Orifice located between two contiguous vertebrae on each side of the column allowing nerves to pass through.

spinous process

Posterior middle protuberance of the vertebra; the attachment point for the back muscles.

articular processes

Small vertical projections on which the vertebrae are articulated.

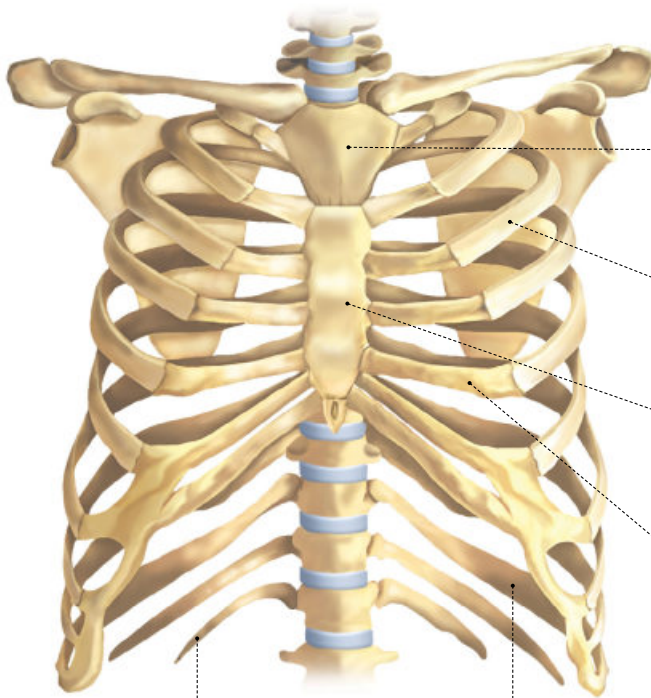
vertebral body

Anterior bony cylinder of a vertebra surrounded by two transverse processes.

intervertebral disk

Flat rounded cartilaginous structure separating two vertebrae; its elasticity allows the vertebral column to move.



**thoracic cage**

Bony structure composed of 12 pairs of ribs articulated with the 12 thoracic vertebrae and the sternum. It covers and protects the organs of the thorax.

manubrium

Upper part of the sternum, which articulates with the first two costal cartilages and the clavicles.

true rib (7)

Thin curved bone, one end of which articulates with the thoracic vertebrae; the other end attaches to the sternum.

sternum

Long flat bone to which the ribs, in particular, are attached.

costal cartilage

Elongated cartilage at the end of the rib that articulates with the sternum.

floating rib (2)

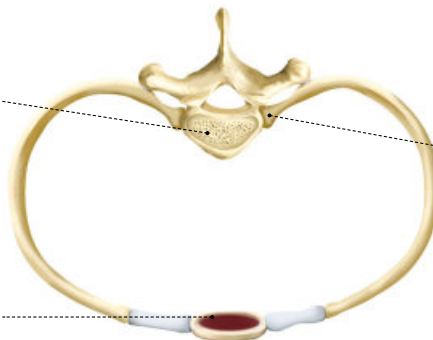
Thin curved bone articulating with the dorsal vertebrae at one end and remaining free at the other end.

false rib (3)

Slender curved bone articulated with the dorsal vertebrae at one end and attached to the upper rib at the other end.

thoracic vertebra

Bone supporting the ribs, located between the cervical and lumbar vertebrae.

**rib**

Long, flat arc-shaped bone; the ribs form the sides of the ribcage.

head of rib

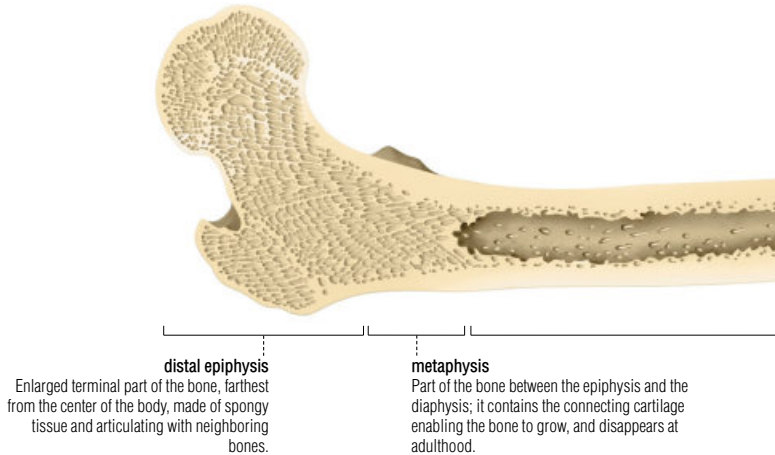
Posterior extremity of a rib, which articulates with a thoracic vertebra at two attachment points.

sternum

Long flat bone to which the ribs, in particular, are attached.

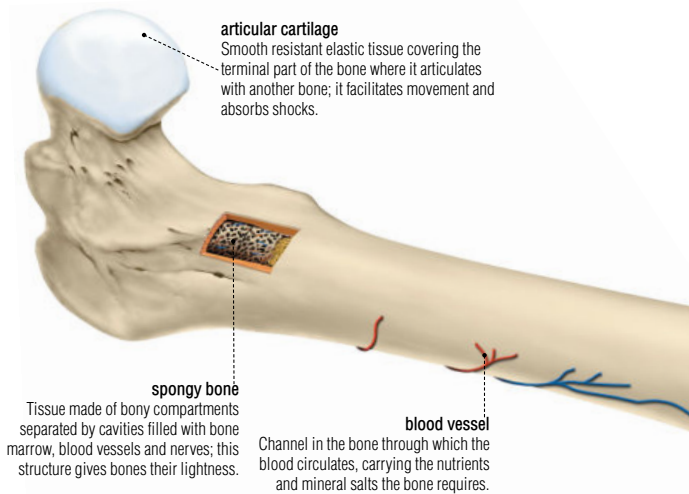
skeleton

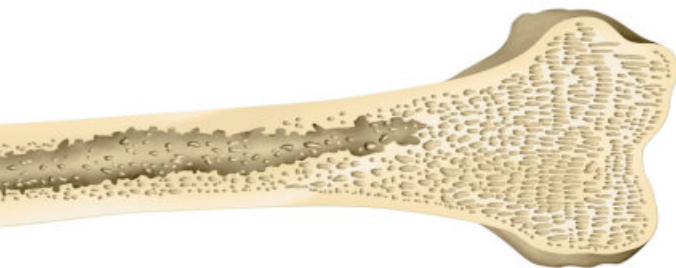
parts of a long bone



structure of a long bone

Long bone: elongated bone consisting of a body (diaphysis) and two terminal parts (epiphyses), such as the leg and arm bones (femur, radius, phalanges and others).



**diaphysis**

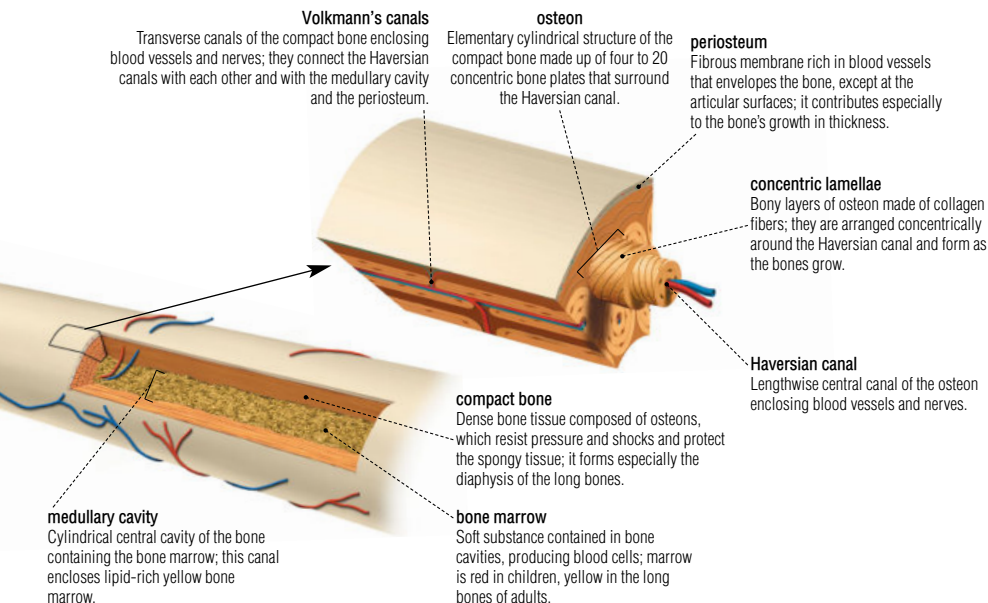
Elongated hollow central portion of the bone located between the metaphyses; it is made of compact tissue and encloses the medullary cavity.

metaphysis

Part of the bone between the epiphysis and the diaphysis; it contains the connecting cartilage enabling the bone to grow, and disappears at adulthood.

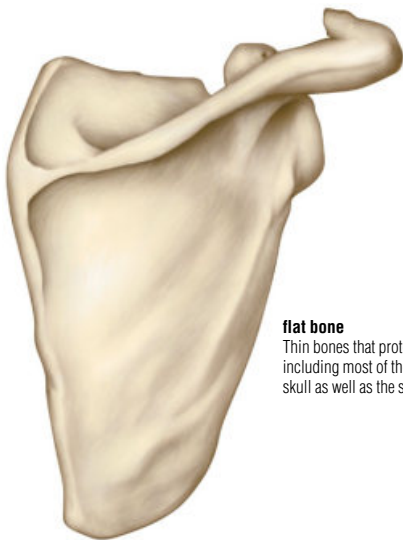
proximal epiphysis

Enlarged terminal part of the bone, nearest the center of the body, made of spongy tissue and articulating with neighboring bones.



types of bones

Bones: rigid structures connected by joints to which muscles are attached. The skeleton has more than 200 bones divided into four major groups.

**flat bone**

Thin bones that protect certain organs, including most of the bones of the skull as well as the scapula.

**long bone**

Elongated bone to which powerful muscles, such as those of the leg and arm, are attached.

**short bone**

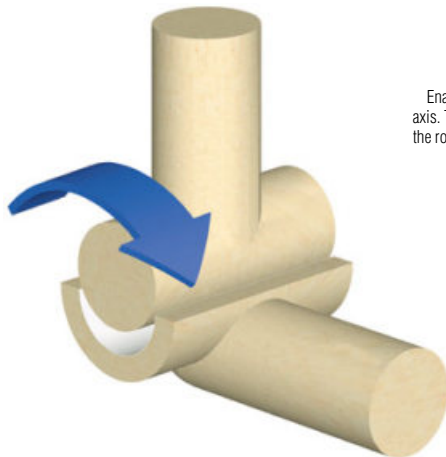
Bones shaped somewhat like cubes that facilitate flexibility of the joints; examples include the bones of the wrist and ankle.

irregular bone
Bones of varying shapes and sizes, such as the vertebrae and certain bones of the skull or pelvis.



types of synovial joints

Joints bounded by a fibrous capsule whose inner membrane secretes a viscous lubricating liquid (synovia), thus allowing a wide range of motion.

**hinge joint**

Enables flexion and extension along a single axis. The elbow is a particularly good example: the round terminal part of the humerus turns in the hollow of the ulna.

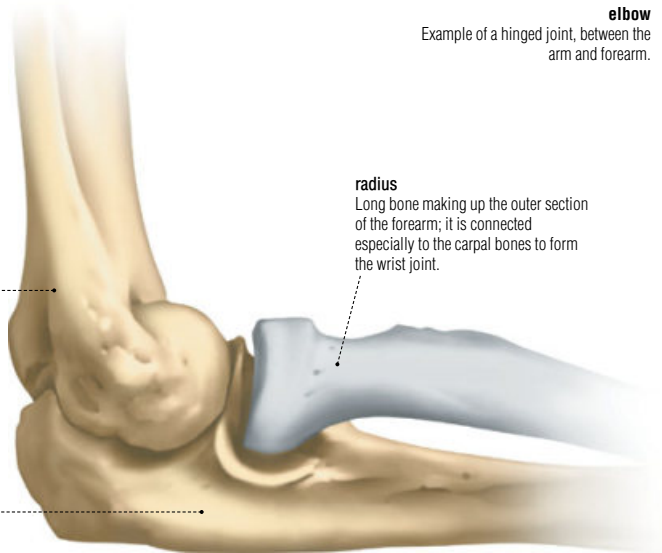
elbow

Example of a hinged joint, between the arm and forearm.

humerus
Long arm bone articulating with the scapula to form the shoulder, and with the radius and the ulna to form the elbow.

ulna
Long bone forming the inner portion of the forearm articulating especially with the humerus.

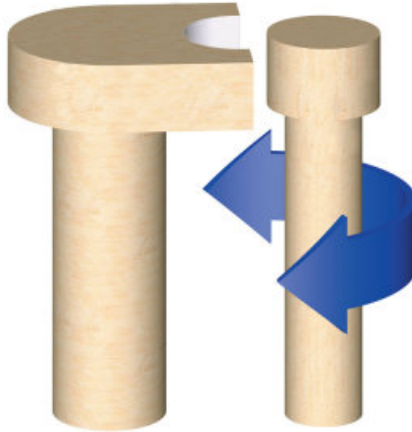
radius
Long bone making up the outer section of the forearm; it is connected especially to the carpal bones to form the wrist joint.



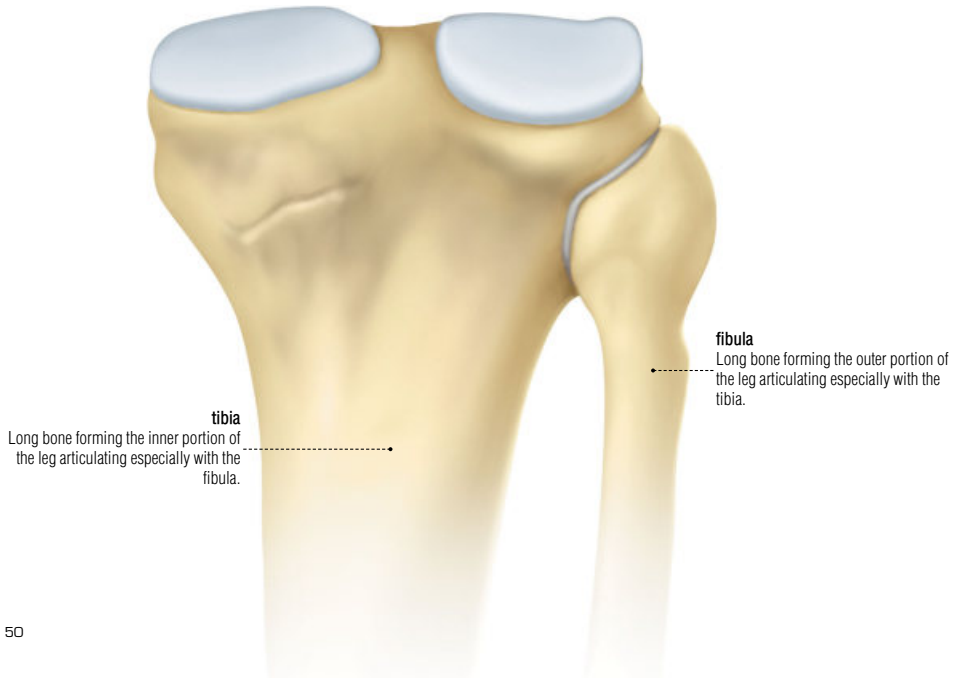
skeleton

pivot joint

Enables rotation around a lengthwise axis: the cylindrical terminal part of a bone is encased in a hollow cylinder. Examples include the tibia and the fibula.

**leg**

Example of a pivot joint, between the fibula and the tibia.

**tibia**

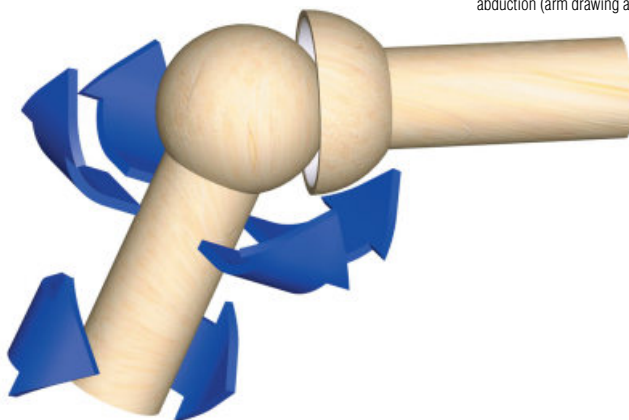
Long bone forming the inner portion of the leg articulating especially with the fibula.

fibula

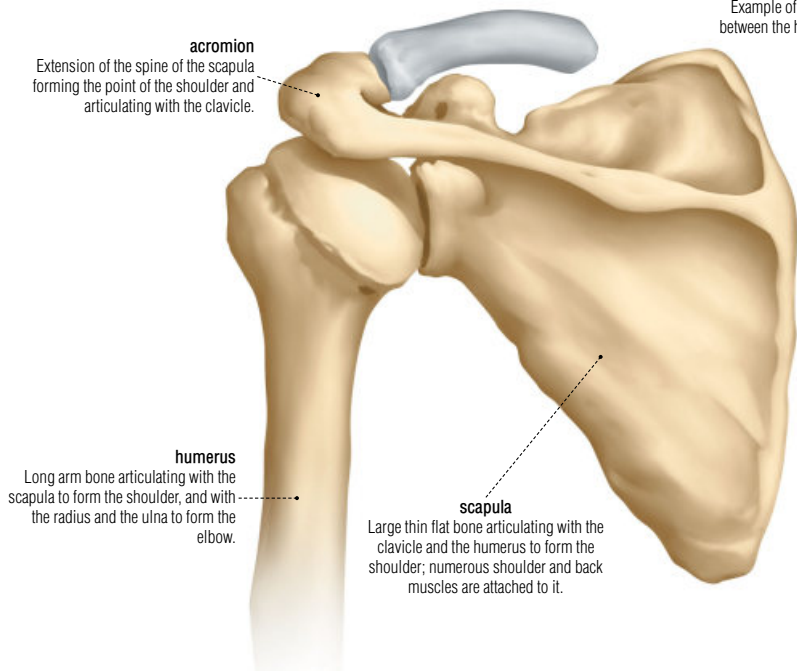
Long bone forming the outer portion of the leg articulating especially with the tibia.

ball-and-socket joint

Allows movement along three axes, such as in the elbow: flexion and extension, rotation, and adduction (arm drawing near the trunk) and abduction (arm drawing away from the trunk).

**shoulder**

Example of a ball-and-socket joint, between the humerus and the thorax.

**acromion**

Extension of the spine of the scapula forming the point of the shoulder and articulating with the clavicle.

humerus

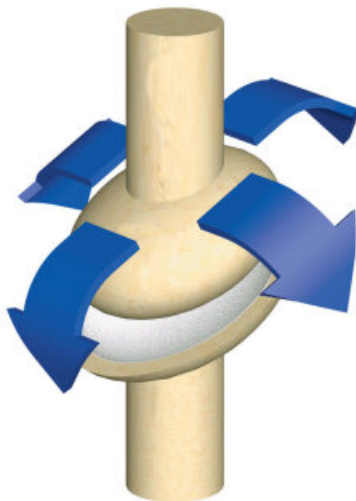
Long arm bone articulating with the scapula to form the shoulder, and with the radius and the ulna to form the elbow.

scapula

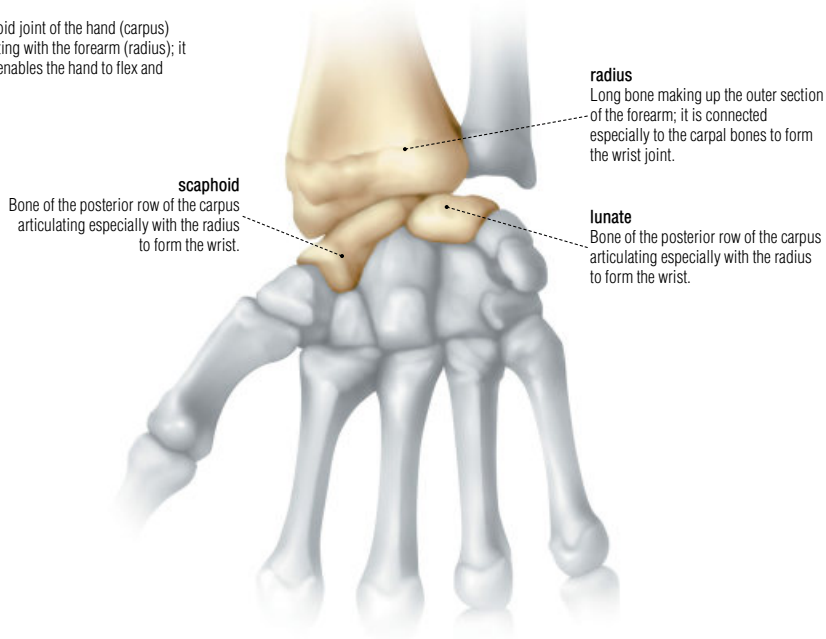
Large thin flat bone articulating with the clavicle and the humerus to form the shoulder; numerous shoulder and back muscles are attached to it.

condyloid joint

An example is the wrist, which the hand can move on two axes: flexion and extension; it can also be tilted sideways (toward the radius and ulna).

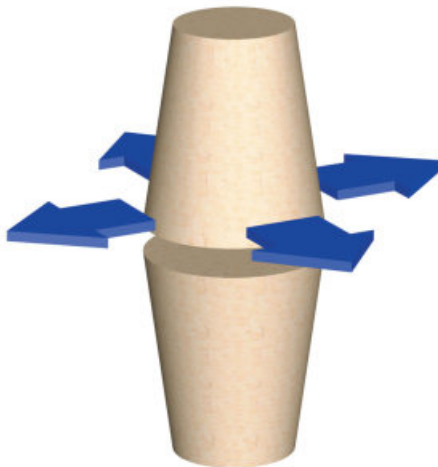
**wrist**

Condyloid joint of the hand (carpus) articulating with the forearm (radius); it mainly enables the hand to flex and extend.



gliding joint

Surfaces of these joints are relatively flat and not very mobile; they allow only a narrow gliding range (e.g., vertebrae, certain bones of the carpus).

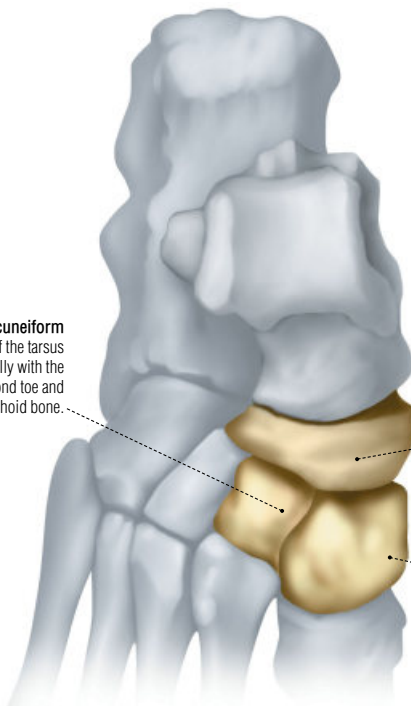
**tarsus**

Gliding joints that ensure the displacement of certain bones of the tarsus.

2nd cuneiform
Bone of the anterior row of the tarsus articulating especially with the metatarsal bone of the second toe and the scaphoid bone.

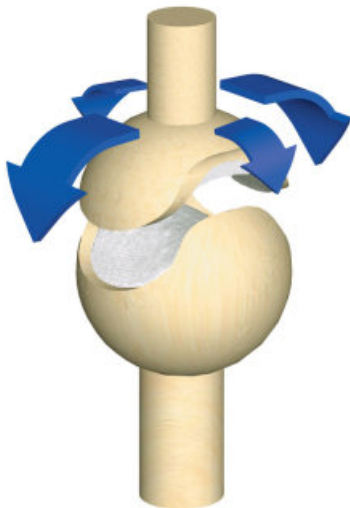
navicular
Bone of the posterior row of the tarsus articulating especially with the talus and the three cuneiforms.

1st cuneiform
Bone of the anterior row of the tarsus articulating especially with the metatarsal bone of the big toe and the scaphoid bone.



saddle joint

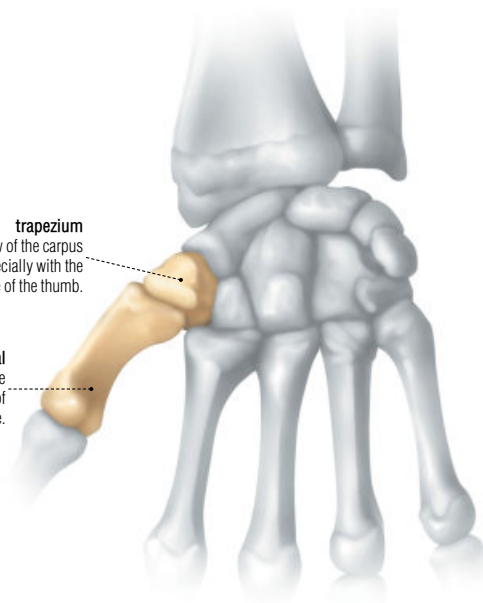
Resembles the condyloid joint but allows a wider range of motion; this type of joint is rare.

**thumb**

The thumb is an example of a saddle joint.

trapezium
Bone of the anterior row of the carpus articulating especially with the metacarpal bone of the thumb.

metacarpal
Each of the five bones forming the metacarpus. The metacarpal bone of the thumb is very mobile.



Hard organs implanted in maxillae and used for masticating food; a child usually has 20 and an adult 32 (16 per jaw).

human denture

The set of teeth placed symmetrically at the edge of the two maxillae; each maxilla has four incisors, two canines, four premolars and six molars.

central incisor

Each of the two incisors in the middle section of the maxilla.

incisors

Each of the four flat cutting teeth of the anterior part of the maxilla having just one root; they are used to cut up food.

lateral incisor

Each of the two incisors of the maxilla located between the central incisors and the canines.

canine

Pointy tooth between the incisors and the premolars having only one root and used to tear apart food; each maxilla has two.

premolars

Each of four teeth between the canines and the molars; they have one or two roots and are used to grind food.

first premolar

wisdom tooth

Third molar, which appears about the age of 20 and occasionally must be extracted (if it is poorly positioned); each maxilla has two.

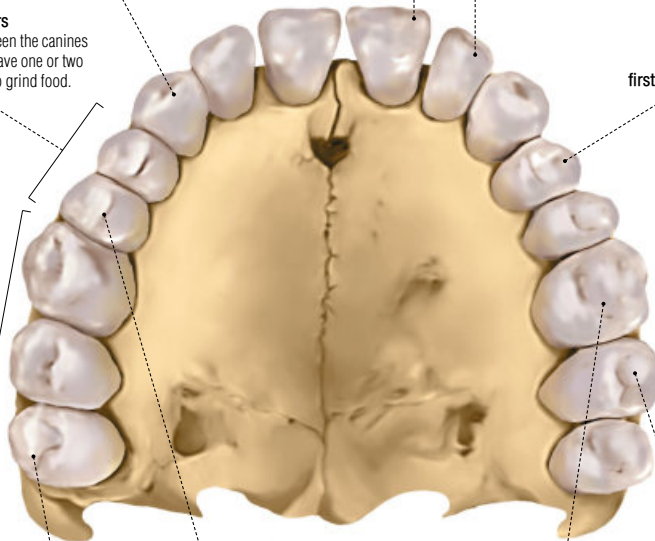
second premolar

first molar

molars

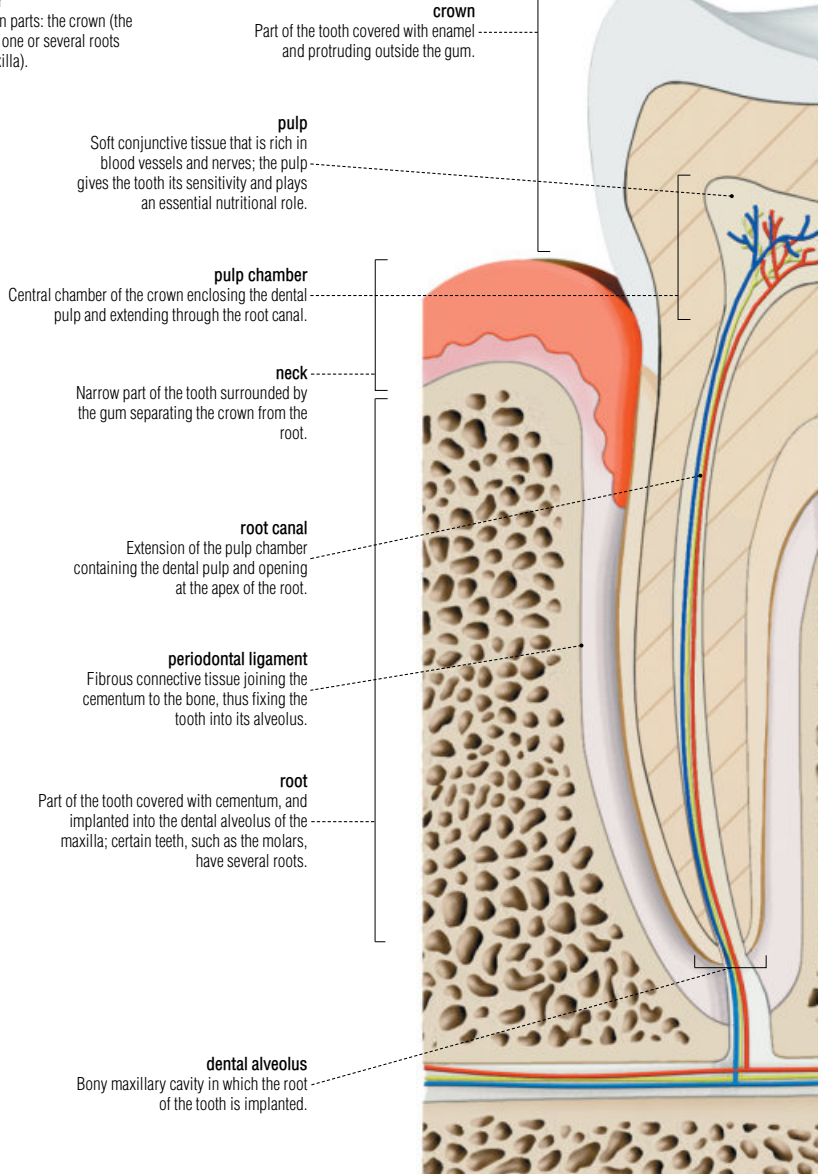
Each of six large teeth of the posterior section of the maxilla; it has several roots and is used to grind food.

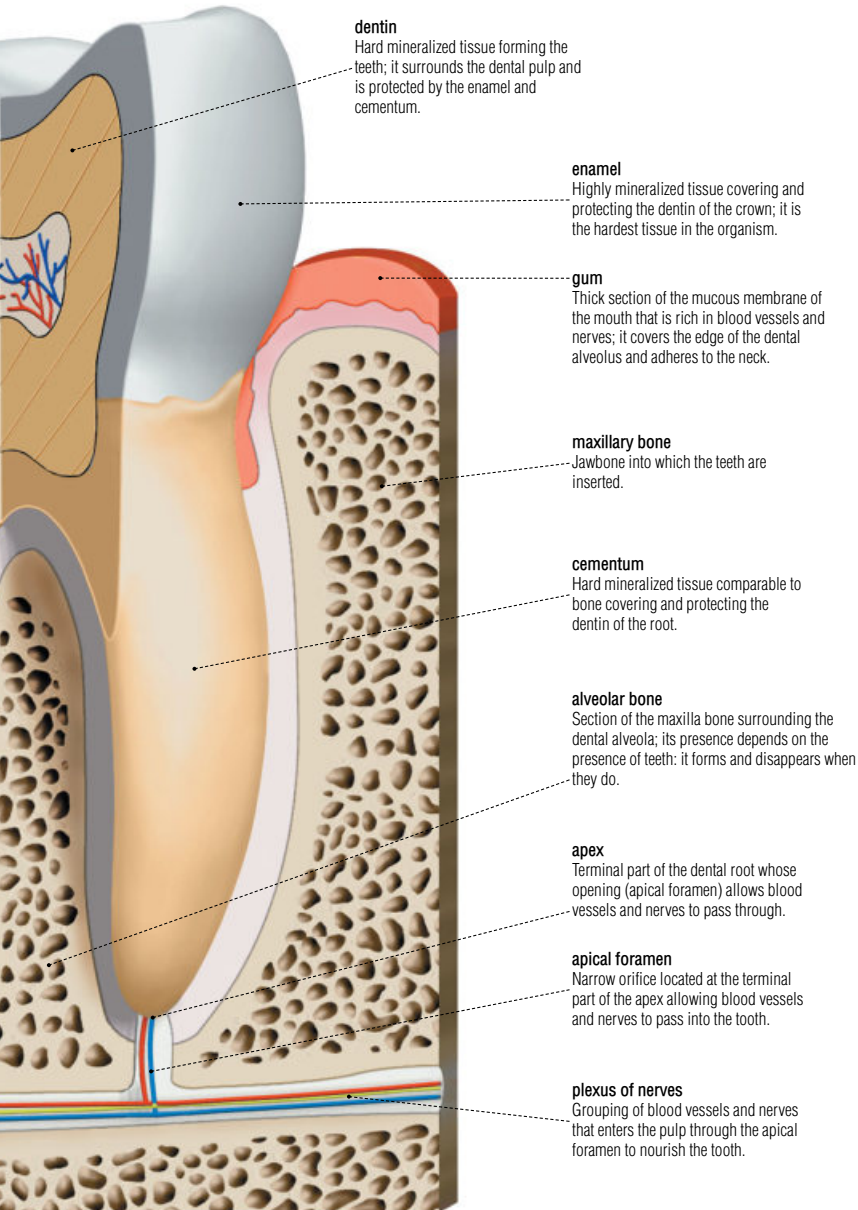
second molar



cross section of a molar

Teeth are formed of two main parts: the crown (the visible protruding part) and one or several roots (the part inserted in the maxilla).

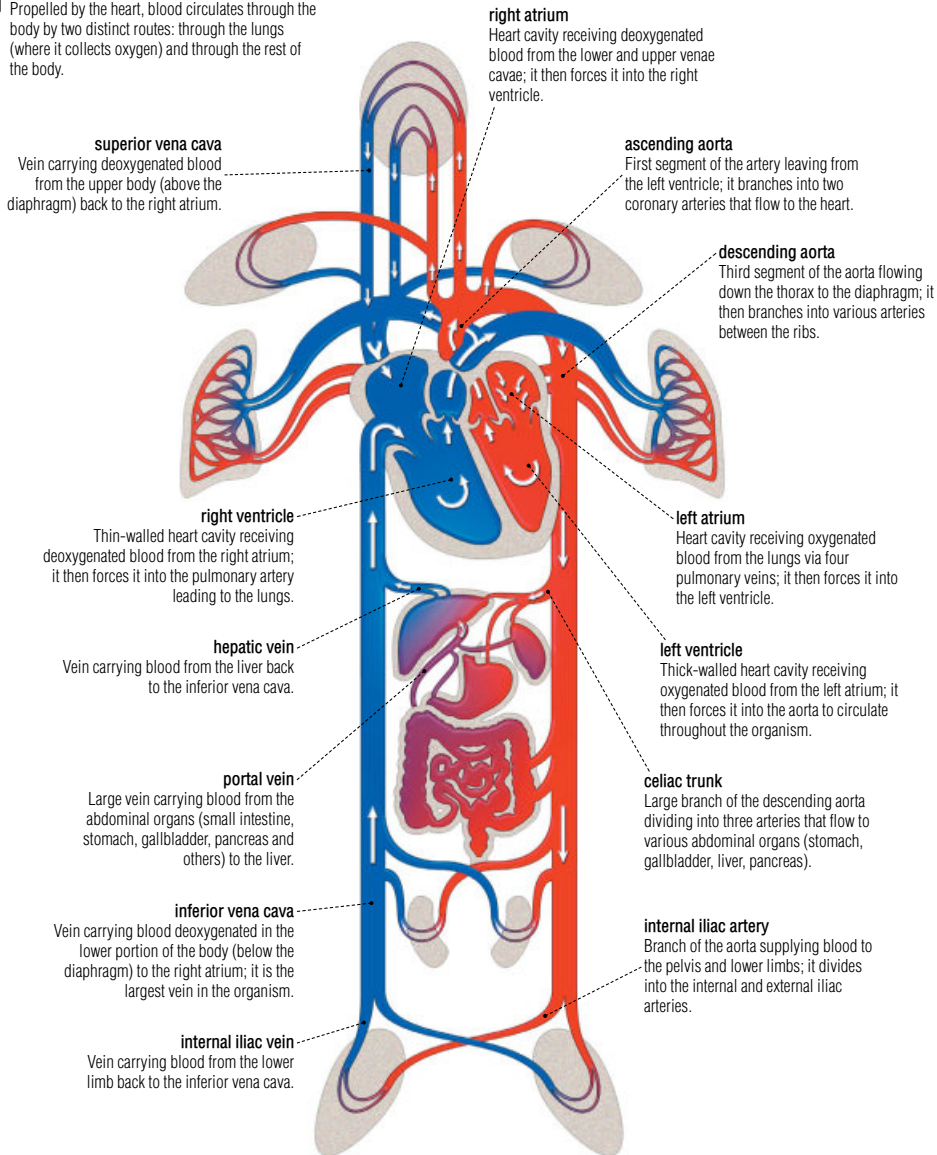




blood circulation

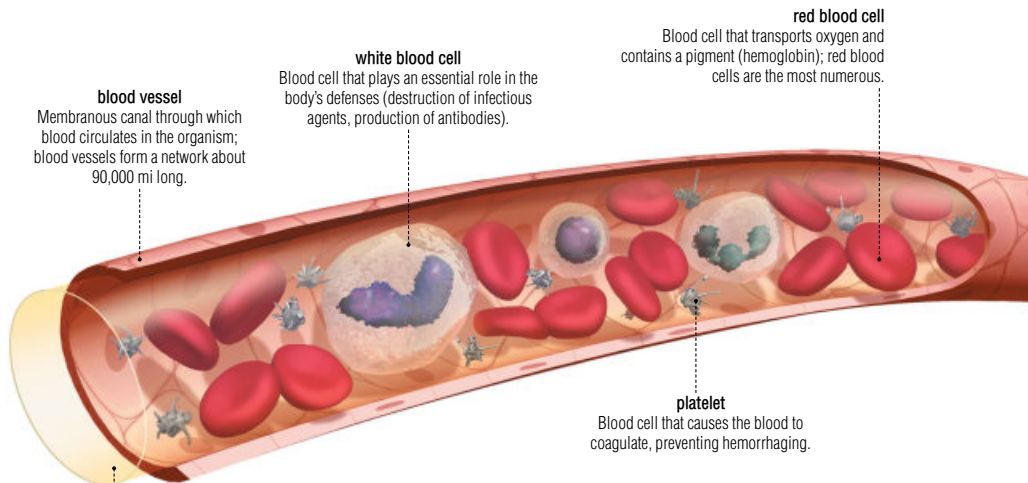
schema of circulation

Propelled by the heart, blood circulates through the body by two distinct routes: through the lungs (where it collects oxygen) and through the rest of the body.



composition of the blood

Blood is made up of an aqueous liquid (plasma) in which solids (blood cells, platelets) are suspended. It accounts for 7% to 8% of the body's weight.

**blood vessel**

Membranous canal through which blood circulates in the organism; blood vessels form a network about 90,000 mi long.

white blood cell

Blood cell that plays an essential role in the body's defenses (destruction of infectious agents, production of antibodies).

red blood cell

Blood cell that transports oxygen and contains a pigment (hemoglobin); red blood cells are the most numerous.

platelet

Blood cell that causes the blood to coagulate, preventing hemorrhaging.

plasma

Liquid part of blood consisting especially of water, mineral salts and proteins; it allows elements such as nutrients and waste to circulate in the blood.

**hemoglobin**

This molecule, contained in red blood cells, is involved in gas exchanges by transporting oxygen and carbon dioxide in the blood.

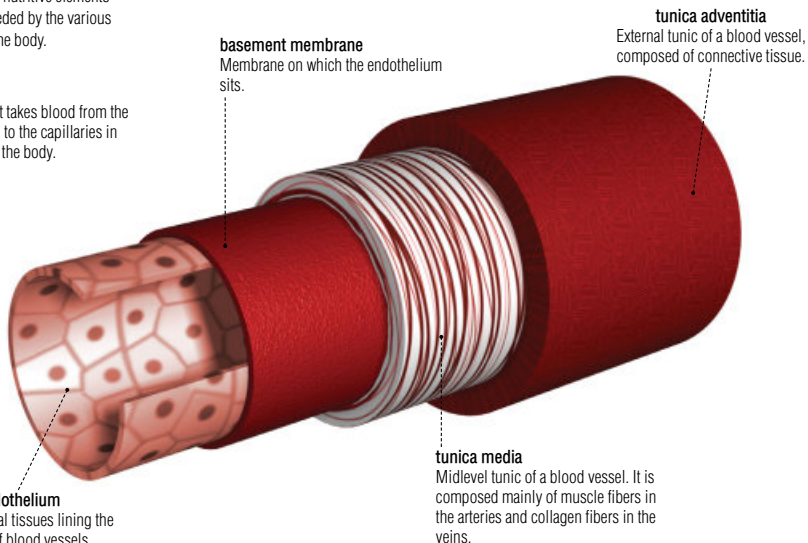
blood circulation

blood vessels

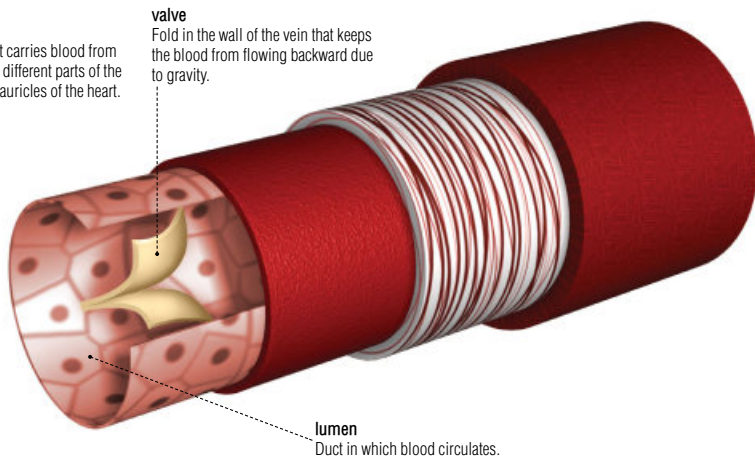
Ducts through which blood circulates, also carrying the nutritive elements and minerals needed by the various components of the body.

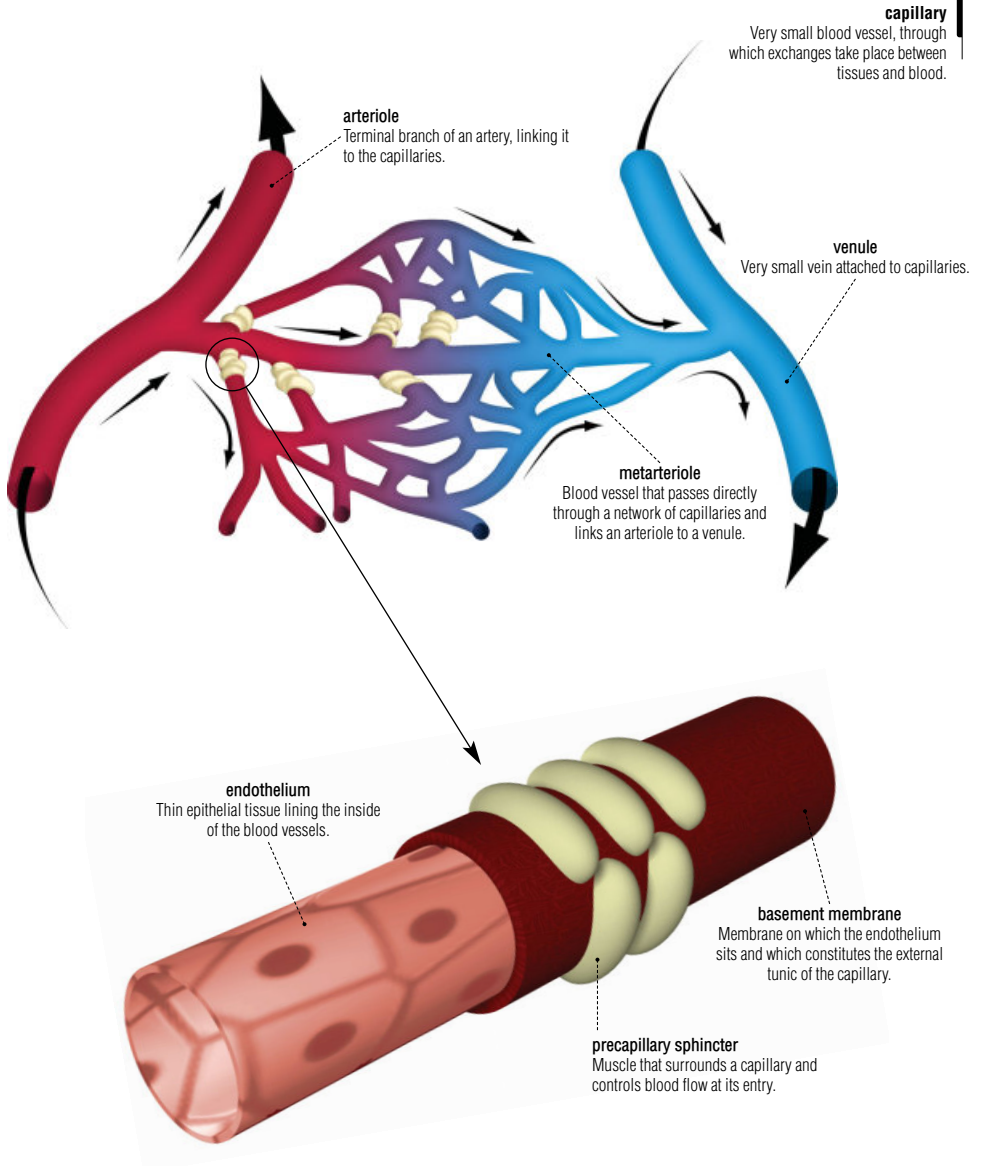
artery

Blood vessel that takes blood from the heart's ventricles to the capillaries in different parts of the body.

**vein**

Blood vessel that carries blood from the capillaries in different parts of the body toward the auricles of the heart.





blood circulation

heart

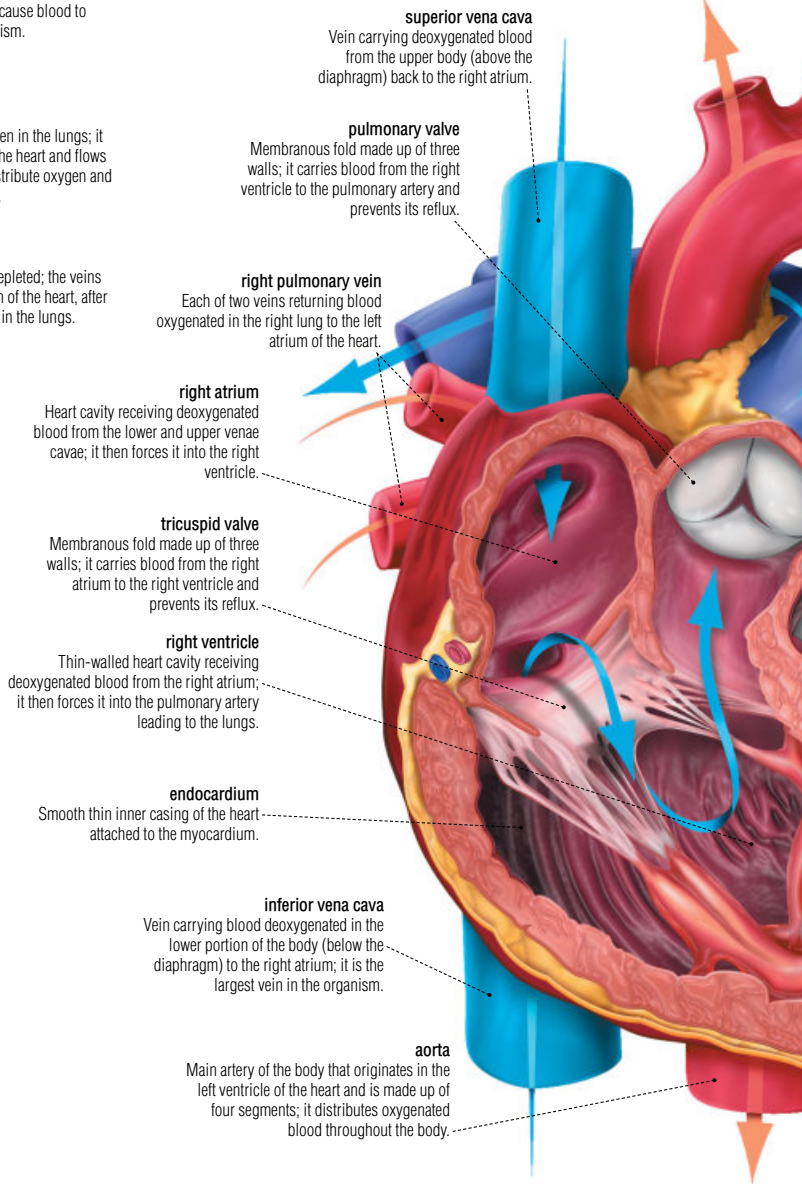
Muscular organ divided into four chambers; its regular rhythmic contractions cause blood to circulate throughout the organism.

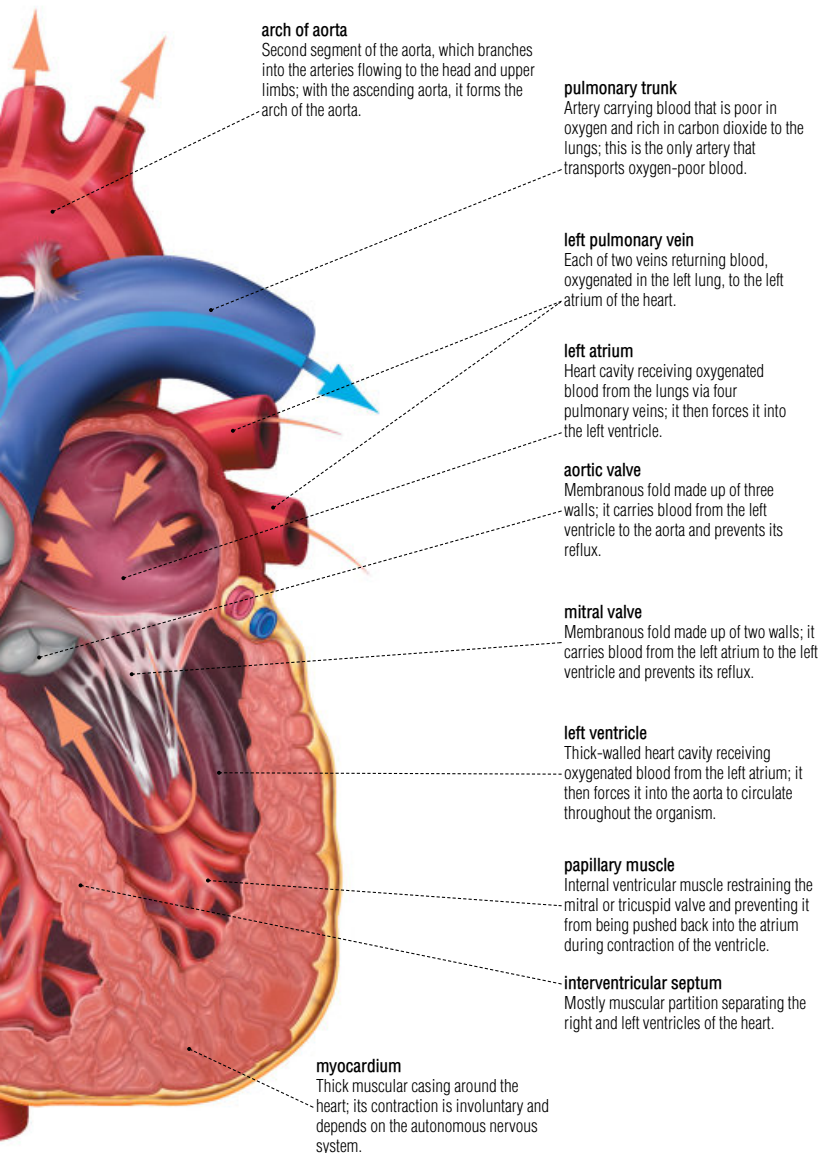
oxygenated blood

Blood enriched with oxygen in the lungs; it leaves the left section of the heart and flows through the arteries to distribute oxygen and nutrients to the organism.

deoxygenated blood

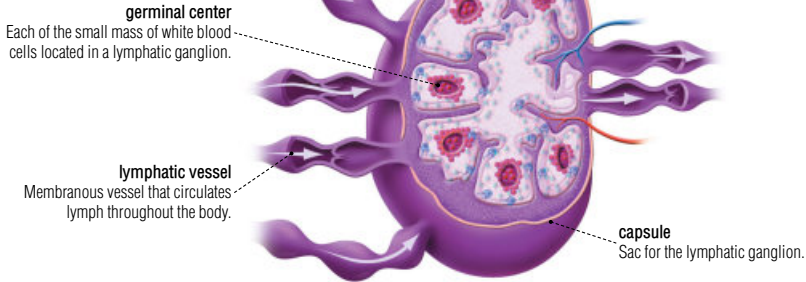
Blood whose oxygen is depleted; the veins carry it to the right portion of the heart, after which it is re-oxygenated in the lungs.



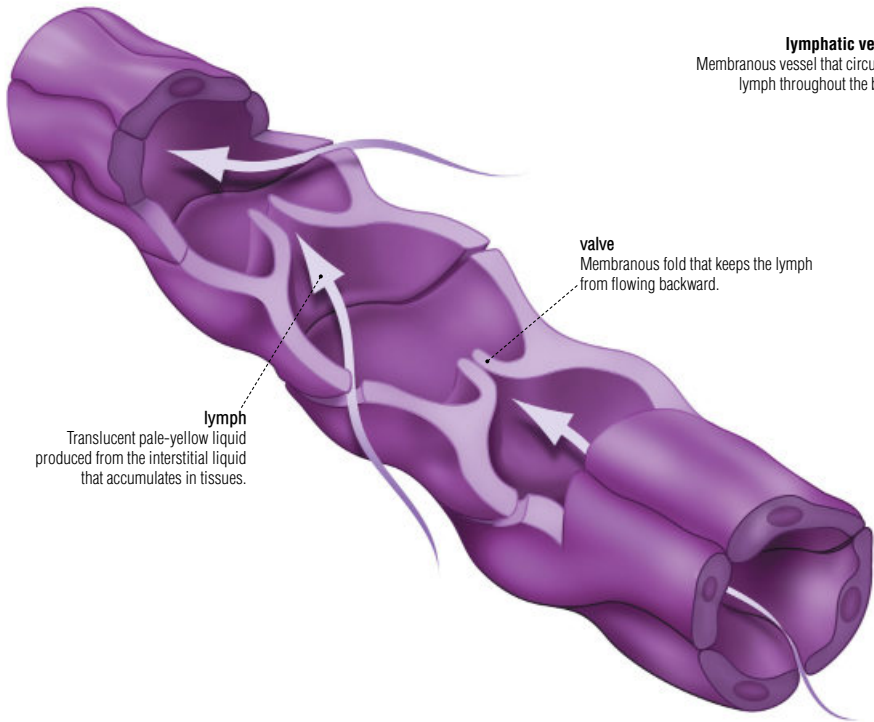


lymph node

Small organ, located along a lymphatic vessel, that filters and cleans the lymph before it passes into the blood-circulation system.

**lymphatic vessel**

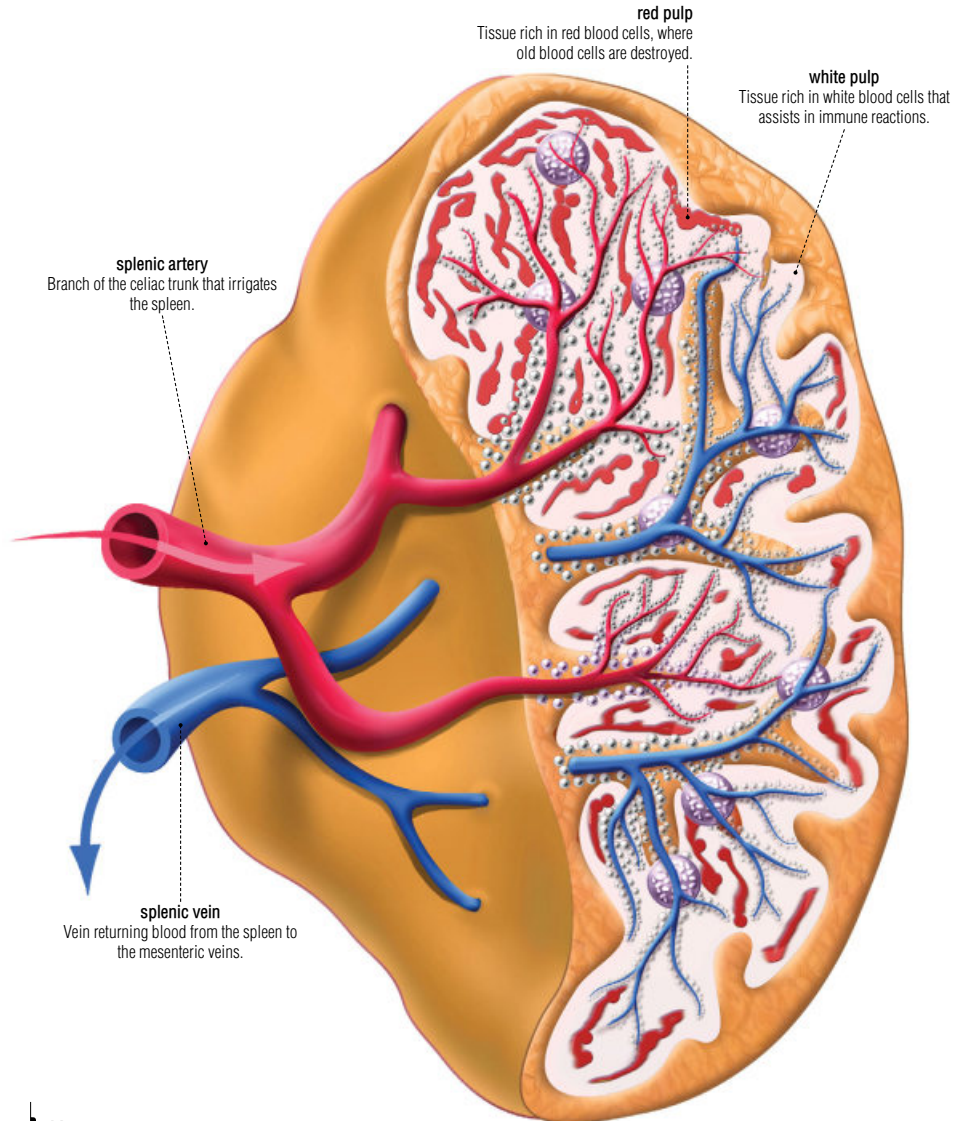
Membranous vessel that circulates lymph throughout the body.



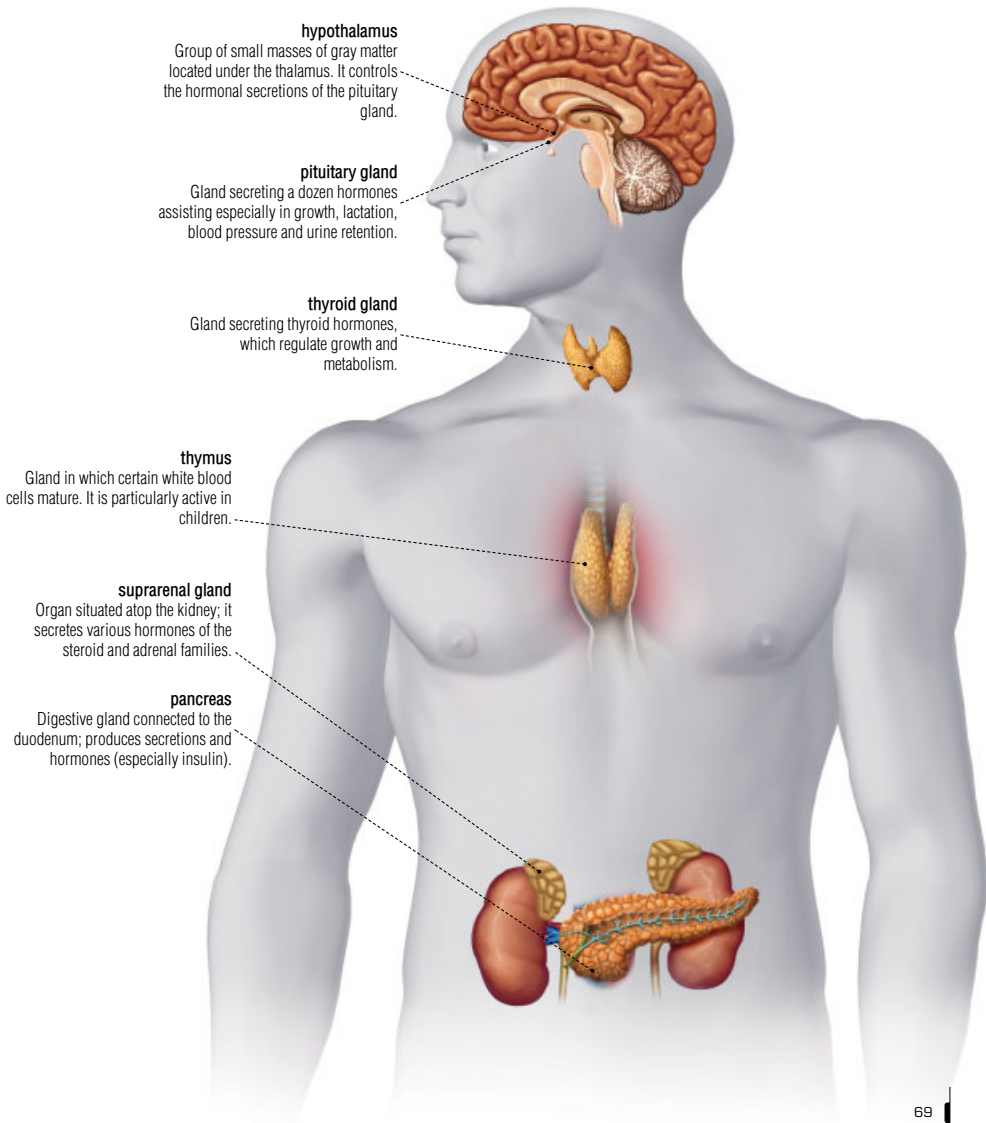
immune system

spleen

Organ of the circulatory system where impurities in the blood are destroyed.



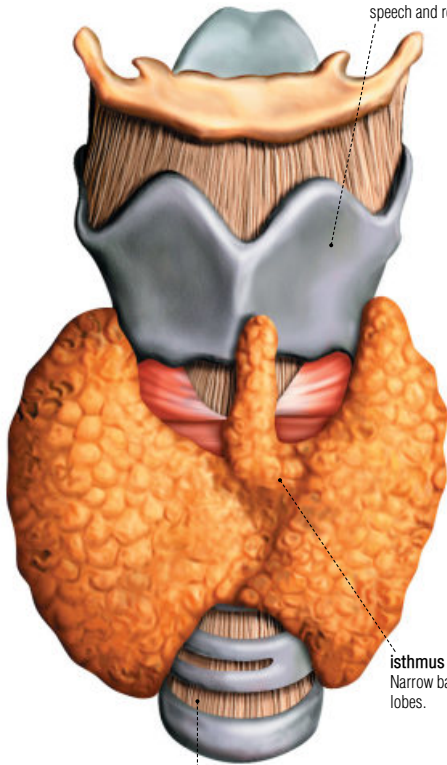
It is composed of a group of glands and cells that regulate certain body functions by releasing chemical substances, hormones, into the blood.



endocrine system

thyroid gland

Gland secreting thyroid hormones, which regulate growth and metabolism.

anterior view**larynx**

Muscular cartilaginous duct at the upper terminal part of the trachea; it contains the vocal cords and plays a role in speech and respiration.

isthmus of thyroid gland

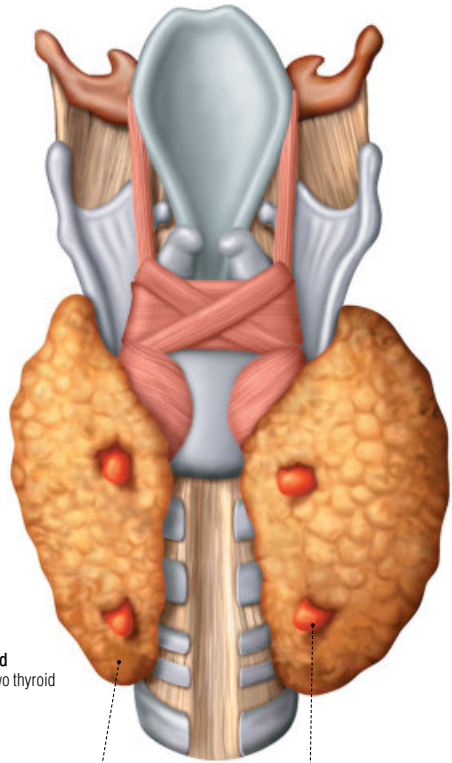
Narrow band linking the two thyroid lobes.

trachea

Muscular cartilaginous tract that is a continuation of the larynx; it allows air to pass.

lobe of thyroid gland

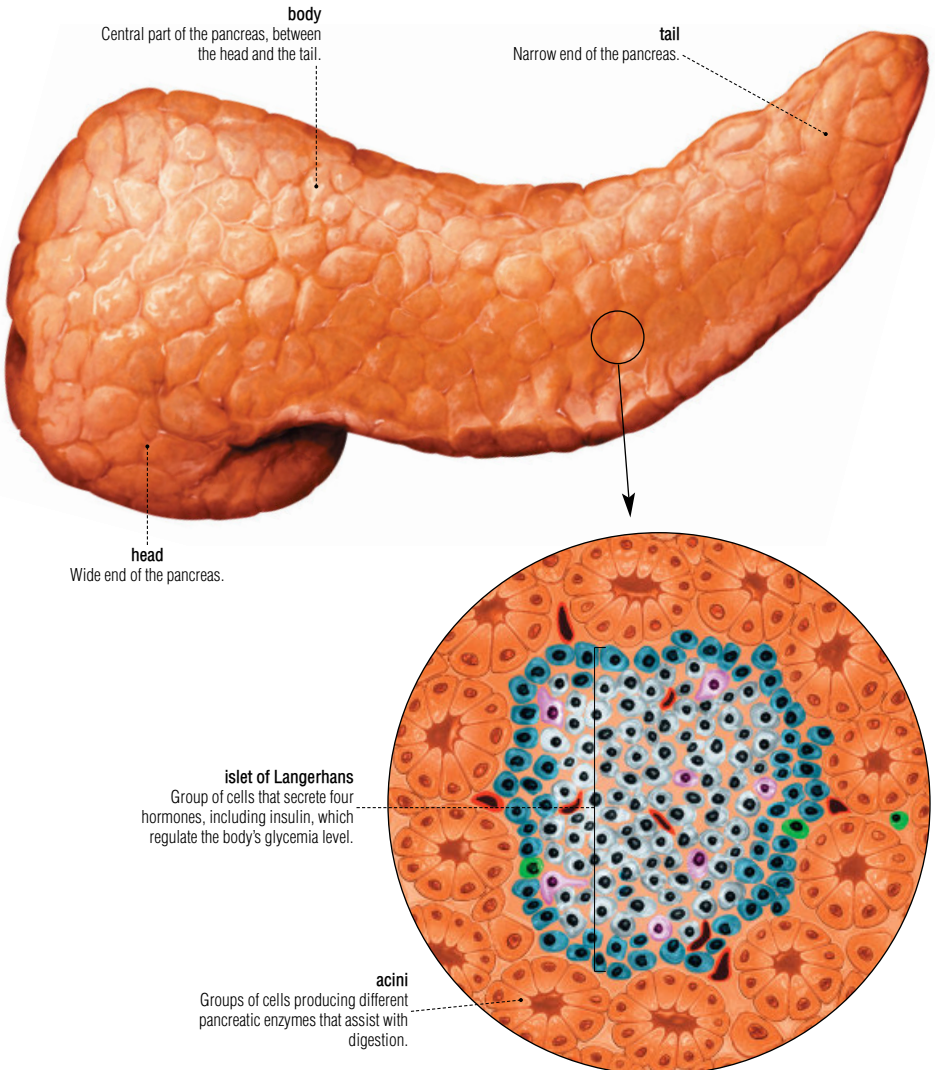
Each of the two main parts of the thyroid gland, located on either side of the larynx.

posterior view**parathyroid gland**

Each of two small glands on the posterior face of the thyroid gland. They secrete a hormone (parathormone) that affects calcium metabolism.

pancreas

Digestive gland connected to the duodenum; produces secretions and hormones (especially insulin).



nucleus

Group of neurons that secrete two hormones involved in the secretion of urine and uterine contractions during childbirth.

hypothalamus

Group of small masses of gray matter located under the thalamus. It controls the hormonal secretions of the pituitary gland.

neural stalk

Duct linking the hypothalamus to the pituitary gland.

pituitary gland

Gland secreting a dozen hormones assisting especially in growth, lactation, blood pressure and urine retention.

neurohypophysis

Posterior part of the pituitary gland, which stores the hormones secreted by the neurons of the hypothalamus and releases the hormones when necessary.

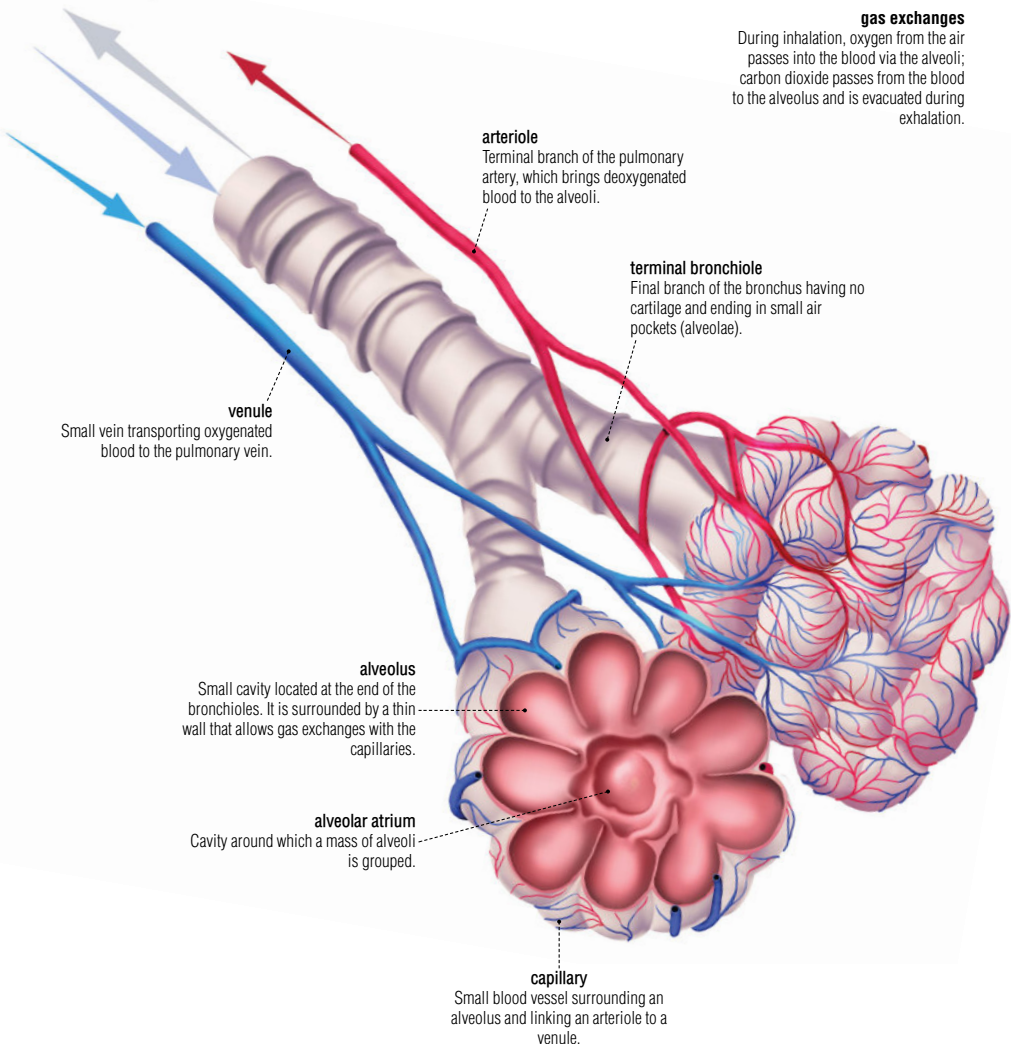
adenohypophysis

Anterior part of the pituitary gland, which secretes hormones that regulate the activity of other endocrine glands.

It causes gaseous exchanges to take place in the lungs by ensuring that oxygen is carried to the blood through inspiration, and carbon dioxide is eliminated from the blood through expiration.

gas exchanges

During inhalation, oxygen from the air passes into the blood via the alveoli; carbon dioxide passes from the blood to the alveolus and is evacuated during exhalation.



respiratory system

lungs

Respiratory organs formed of extensible tissue, in which air from the nasal and oral cavities is carried, ensuring oxygenation of the blood.

trachea

Muscular cartilaginous tract that is a continuation of the larynx; it divides into two main bronchi, each of which ends in a lung, and allows air to pass.

main bronchus

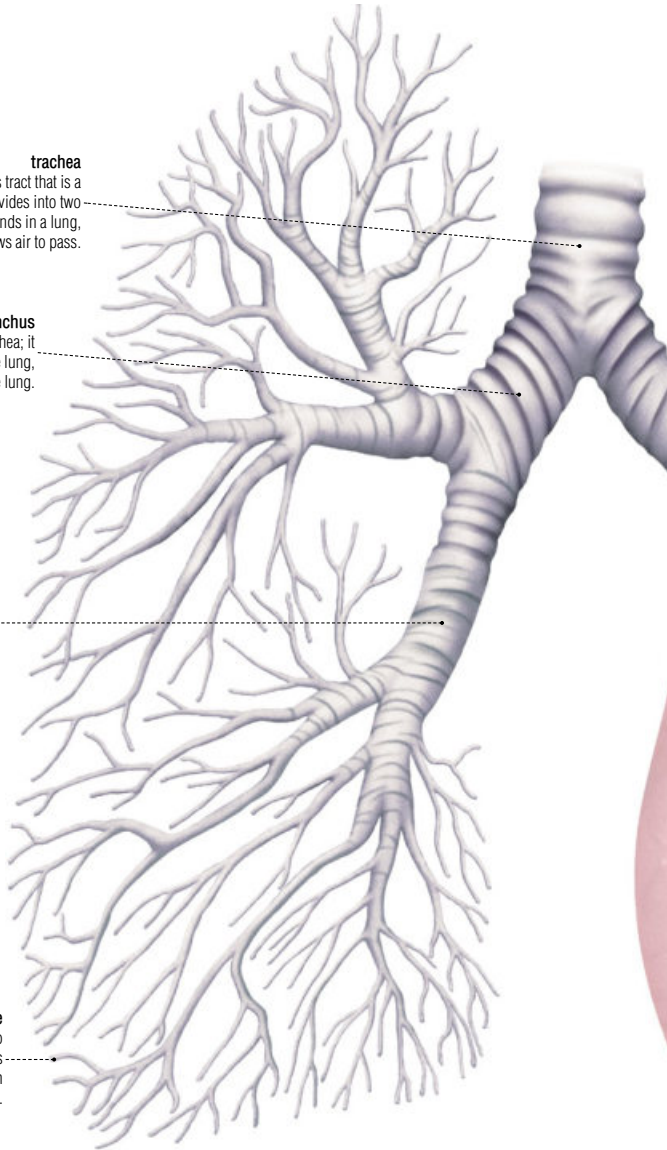
Channel leading from the trachea; it allows air to enter and exit the lung, and branches out inside the lung.

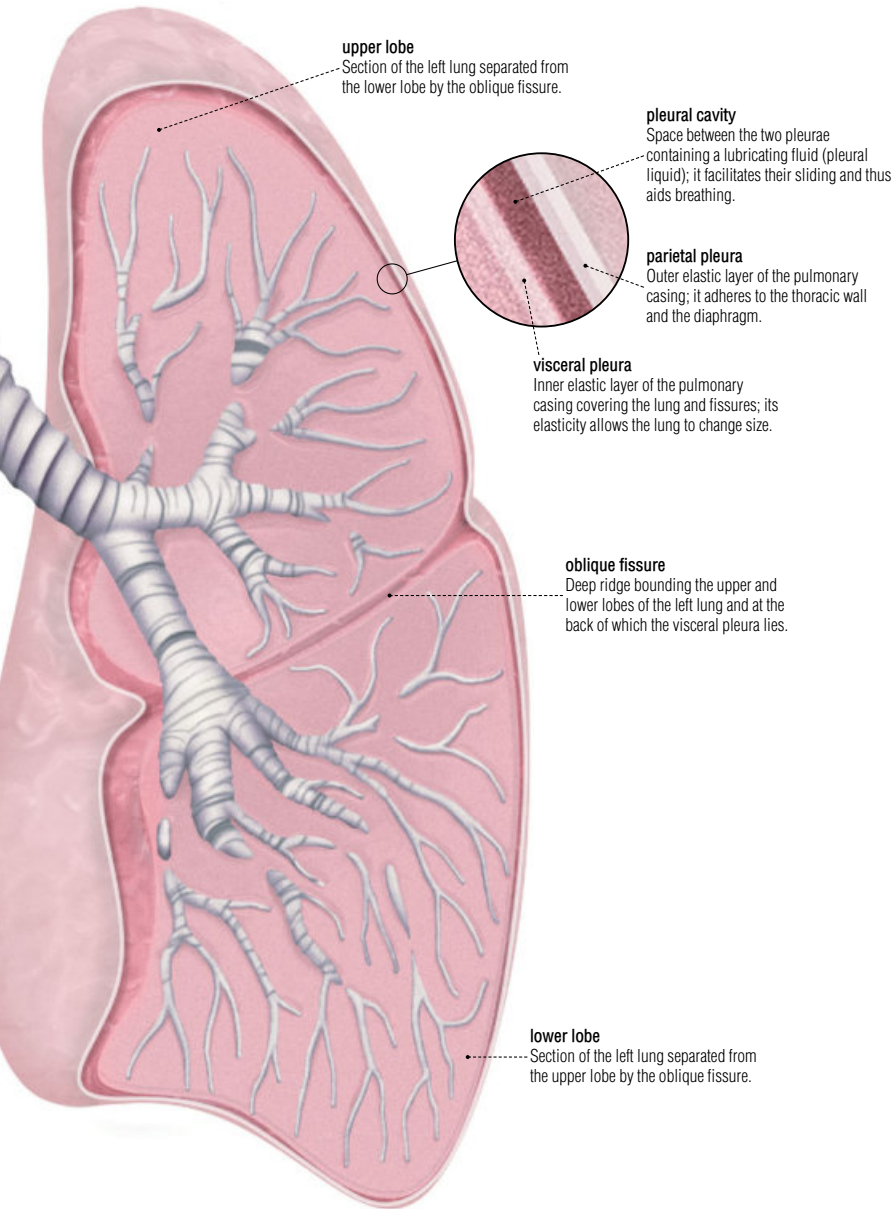
lobe bronchus

Branch of the main bronchus ending in a pulmonary lobe and dividing into smaller and smaller bronchi.

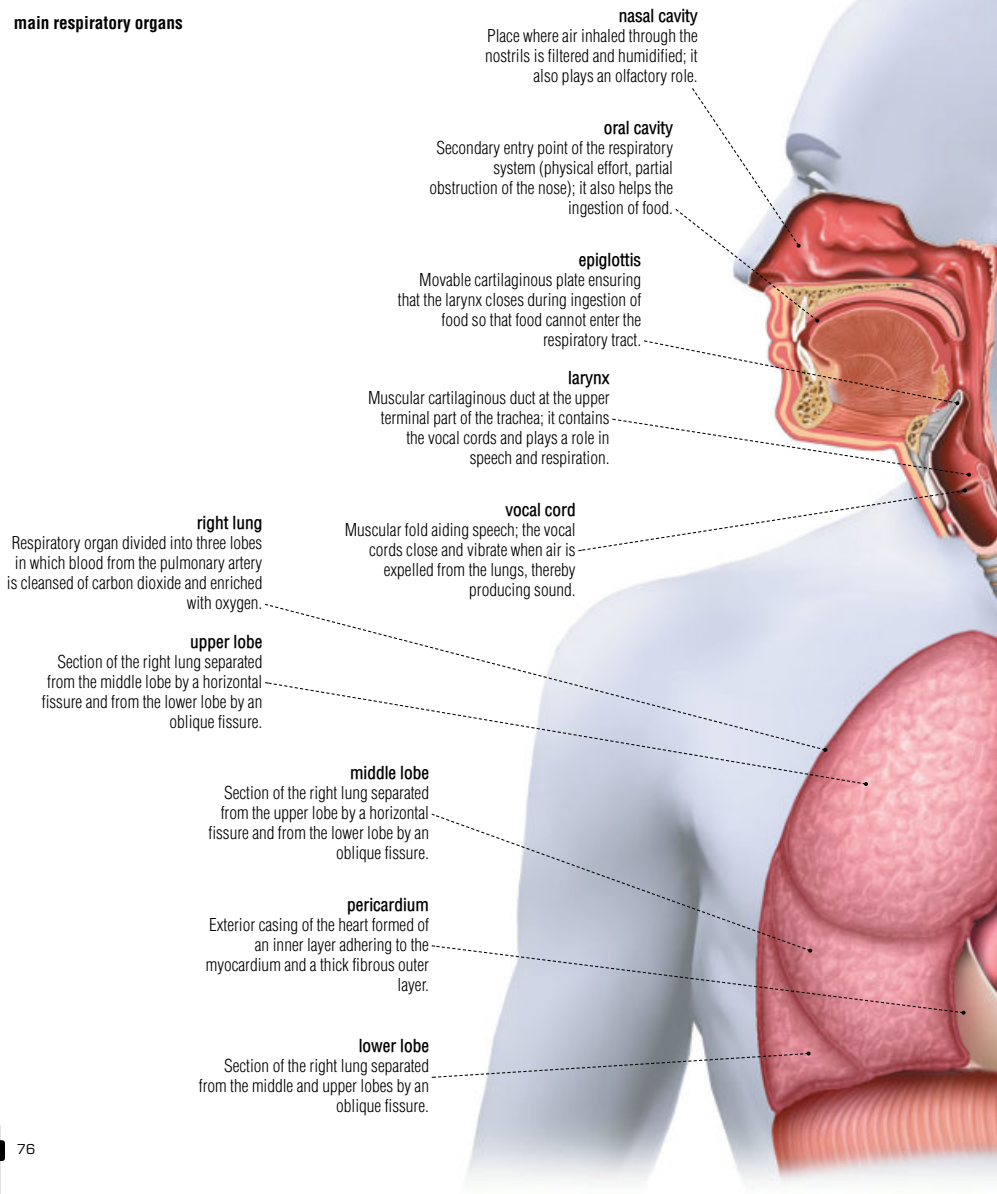
terminal bronchiole

Final branch of the bronchus having no cartilage and ending in small air pockets (alveolae) where gases are exchanged with the blood.





main respiratory organs

**nasal cavity**

Place where air inhaled through the nostrils is filtered and humidified; it also plays an olfactory role.

oral cavity

Secondary entry point of the respiratory system (physical effort, partial obstruction of the nose); it also helps the ingestion of food.

epiglottis

Movable cartilaginous plate ensuring that the larynx closes during ingestion of food so that food cannot enter the respiratory tract.

larynx

Muscular cartilaginous duct at the upper terminal part of the trachea; it contains the vocal cords and plays a role in speech and respiration.

vocal cord

Muscular fold aiding speech; the vocal cords close and vibrate when air is expelled from the lungs, thereby producing sound.

right lung

Respiratory organ divided into three lobes in which blood from the pulmonary artery is cleansed of carbon dioxide and enriched with oxygen.

upper lobe

Section of the right lung separated from the middle lobe by a horizontal fissure and from the lower lobe by an oblique fissure.

middle lobe

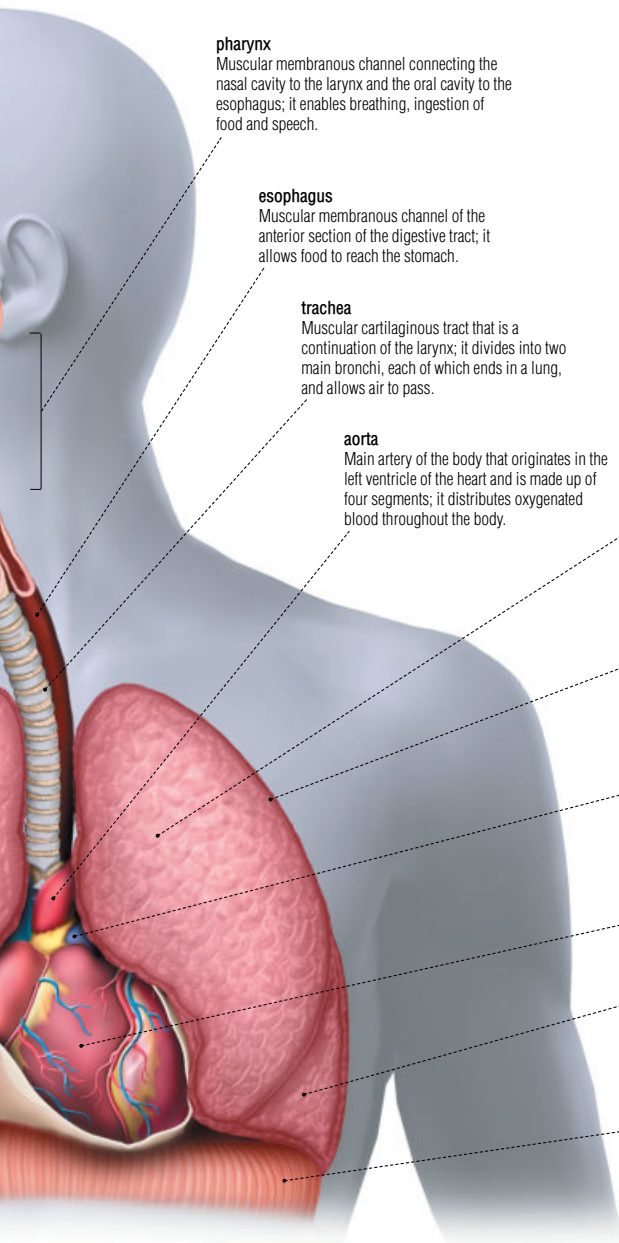
Section of the right lung separated from the upper lobe by a horizontal fissure and from the lower lobe by an oblique fissure.

pericardium

Exterior casing of the heart formed of an inner layer adhering to the myocardium and a thick fibrous outer layer.

lower lobe

Section of the right lung separated from the middle and upper lobes by an oblique fissure.

**pharynx**

Muscular membranous channel connecting the nasal cavity to the larynx and the oral cavity to the esophagus; it enables breathing, ingestion of food and speech.

esophagus

Muscular membranous channel of the anterior section of the digestive tract; it allows food to reach the stomach.

trachea

Muscular cartilaginous tract that is a continuation of the larynx; it divides into two main bronchi, each of which ends in a lung, and allows air to pass.

aorta

Main artery of the body that originates in the left ventricle of the heart and is made up of four segments; it distributes oxygenated blood throughout the body.

upper lobe

Section of the left lung separated from the lower lobe by the oblique fissure.

left lung

Respiratory organ divided into two lobes where blood from the pulmonary artery is cleansed of carbon dioxide and enriched with oxygen.

pulmonary artery

Artery carrying blood that is poor in oxygen and rich in carbon dioxide to the lungs; it is the only artery that transports oxygen-poor blood.

heart

Muscular organ divided into four chambers; its regular rhythmic contractions cause blood to circulate throughout the organism.

lower lobe

Section of the left lung separated from the upper lobe by the oblique fissure.

diaphragm

Main muscle of inspiration separating the thorax from the abdomen; its contraction increases the size of the thoracic cage and lungs, into which inhaled air is carried.

respiratory system

larynx

Muscular cartilaginous duct at the upper terminal part of the trachea; it contains the vocal cords and plays a role in speech and respiration.

epiglottis

Movable cartilaginous plate ensuring that the larynx closes during ingestion of food so that food cannot enter the respiratory tract.

hyoid bone

Bone supporting the larynx, and the insertion point for various muscles of the tongue, pharynx, and larynx.

thyrohyoid membrane

Membrane linking thyroid cartilage to the hyoid bone.

thyroid cartilage

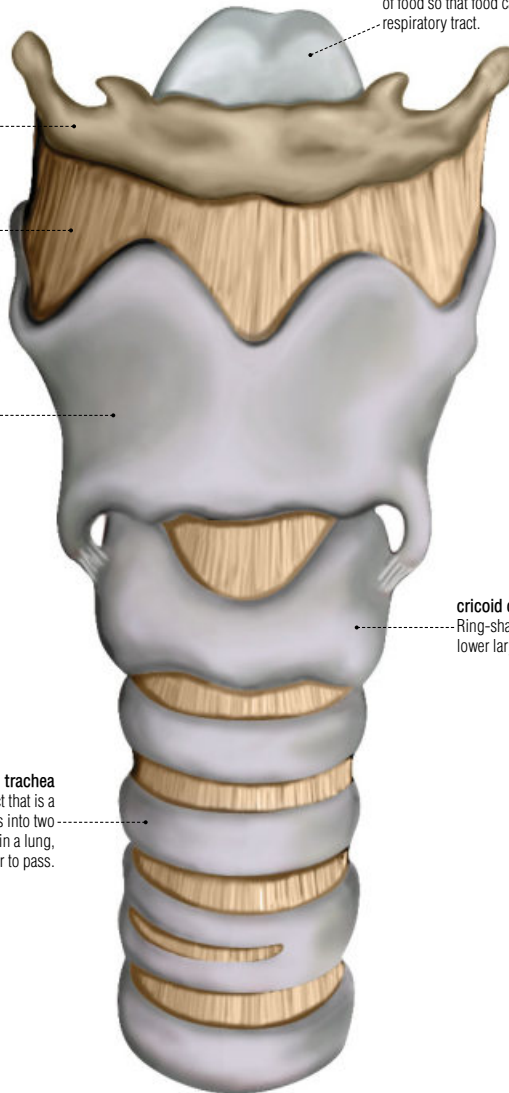
Structure formed of two lateral plates whose junction forms a very visible ridge in men (Adam's apple).

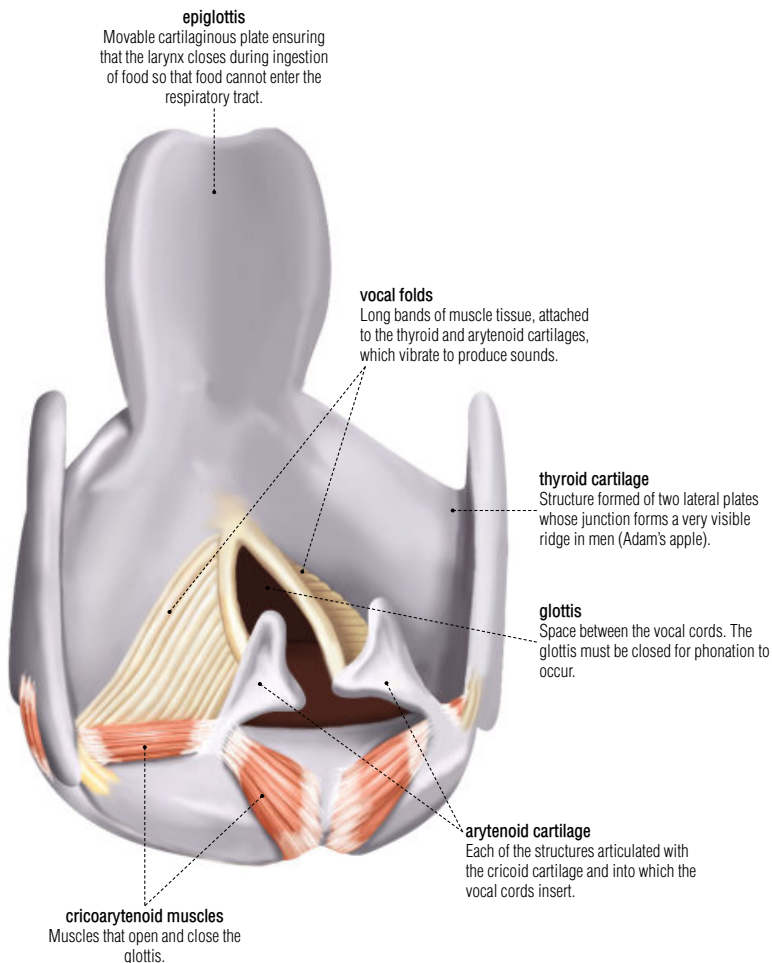
cricoid cartilage

Ring-shaped structure located in the lower larynx.

trachea

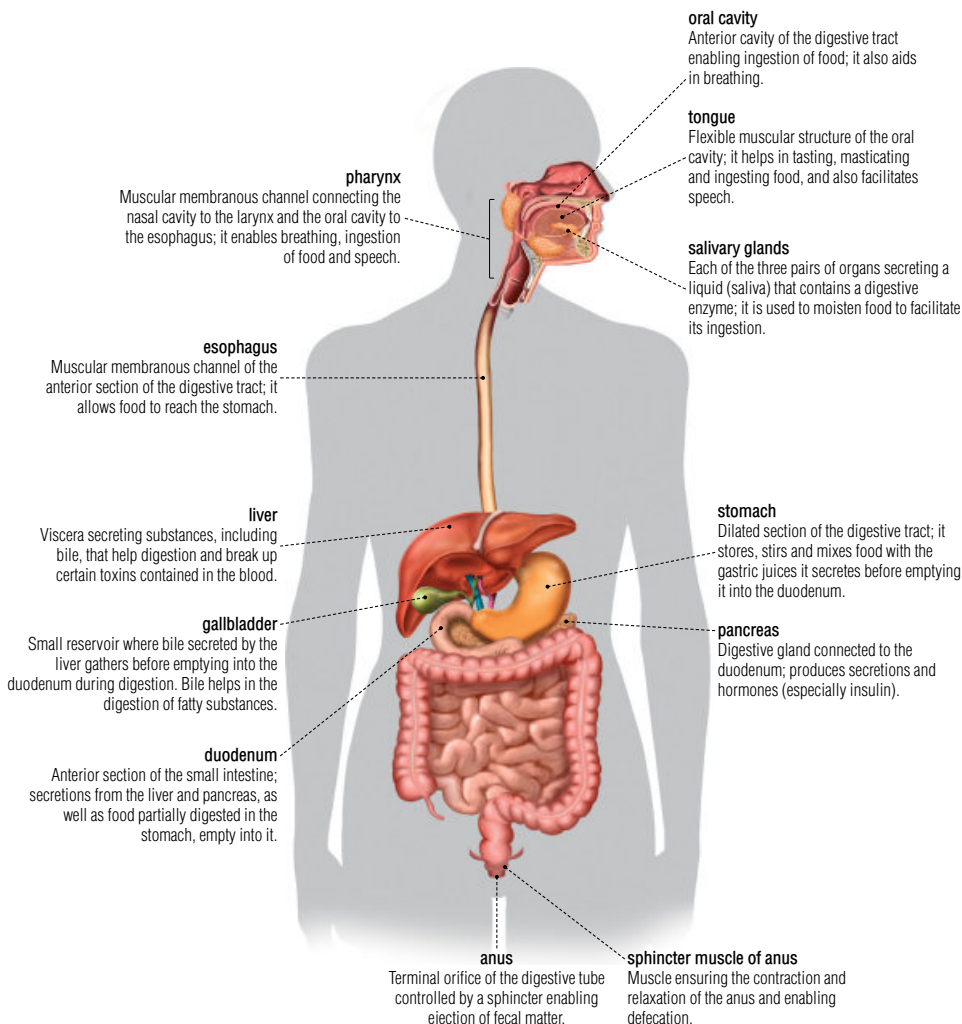
Muscular cartilaginous tract that is a continuation of the larynx; it divides into two main bronchi, each of which ends in a lung, and allows air to pass.





digestive system

Formed of the mouth, digestive tract and appended glands, it converts ingested food so that it can be assimilated by the organism.



small intestine

Narrow section of the digestive tract, about 20 ft long, between the stomach and cecum, where a part of digestion and food absorption occurs.

jejunum

Middle section of the small intestine between the duodenum and the ileum; the majority of nutrients are absorbed here.

ileum

Terminal part of the small intestine between the jejunum and cecum.

large intestine

Last wide section of the digestive tract, about 5 ft long, where the final stage of digestion and elimination of waste occurs; it includes the colon and the rectum.

transverse colon

Second segment of the colon (middle section of the large intestine). The right colon (the ascending colon plus half the transverse colon) mainly enables absorption of water.

descending colon
Third segment of the colon; it stores waste before it is eliminated.

ascending colon

First segment of the colon; it absorbs water from food residue before it is excreted.

cecum

Anterior part of the large intestine; it receives food particles from the ileum.

vermiform appendix

Tubular extension of the cecum; this appendage is occasionally the site of appendicitis, a severe inflammation.

rectum

Terminal section of the large intestine preceding the anus.

sigmoid colon

Fourth segment of the colon; it carries waste to the rectum.

digestive system

stomach

Dilated section of the digestive tract preceding the intestine; it receives food to be digested.

esophagus

Muscular membranous channel of the anterior section of the digestive tract; it allows food to reach the stomach.

peritoneum

Resistant membrane covering the internal walls and organs of the abdominal cavity and maintaining its shape.

duodenum

Anterior section of the small intestine; secretions from the liver and pancreas, as well as food partially digested in the stomach, empty into it.

pylorus

Orifice leading from the stomach that controls, with a sphincter, the passage of partially digested foods to the duodenum.

muscles

Layers of muscle covering the submucosa, the contraction of mixes foods in the stomach.

mucous membrane

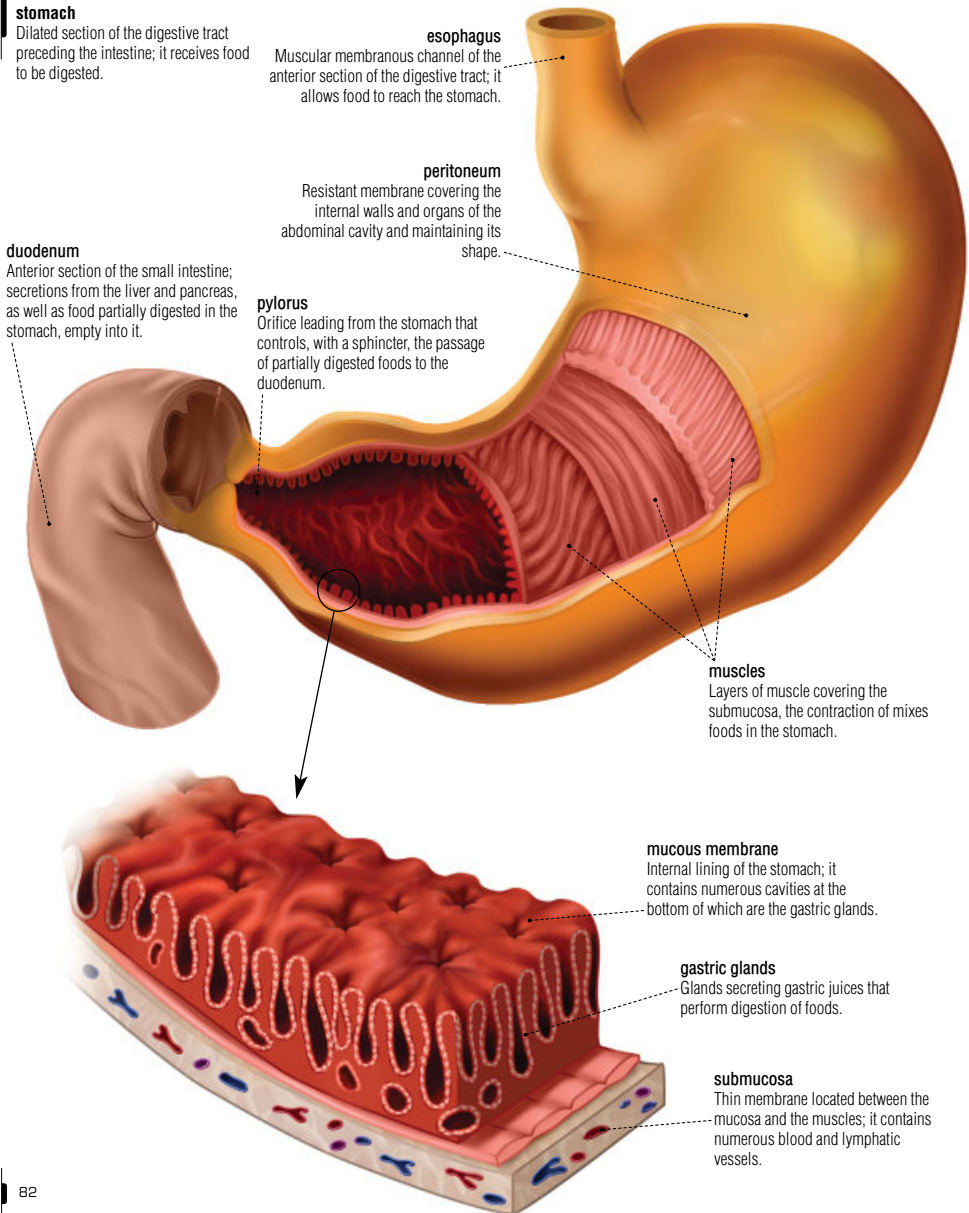
Internal lining of the stomach; it contains numerous cavities at the bottom of which are the gastric glands.

gastric glands

Glands secreting gastric juices that perform digestion of foods.

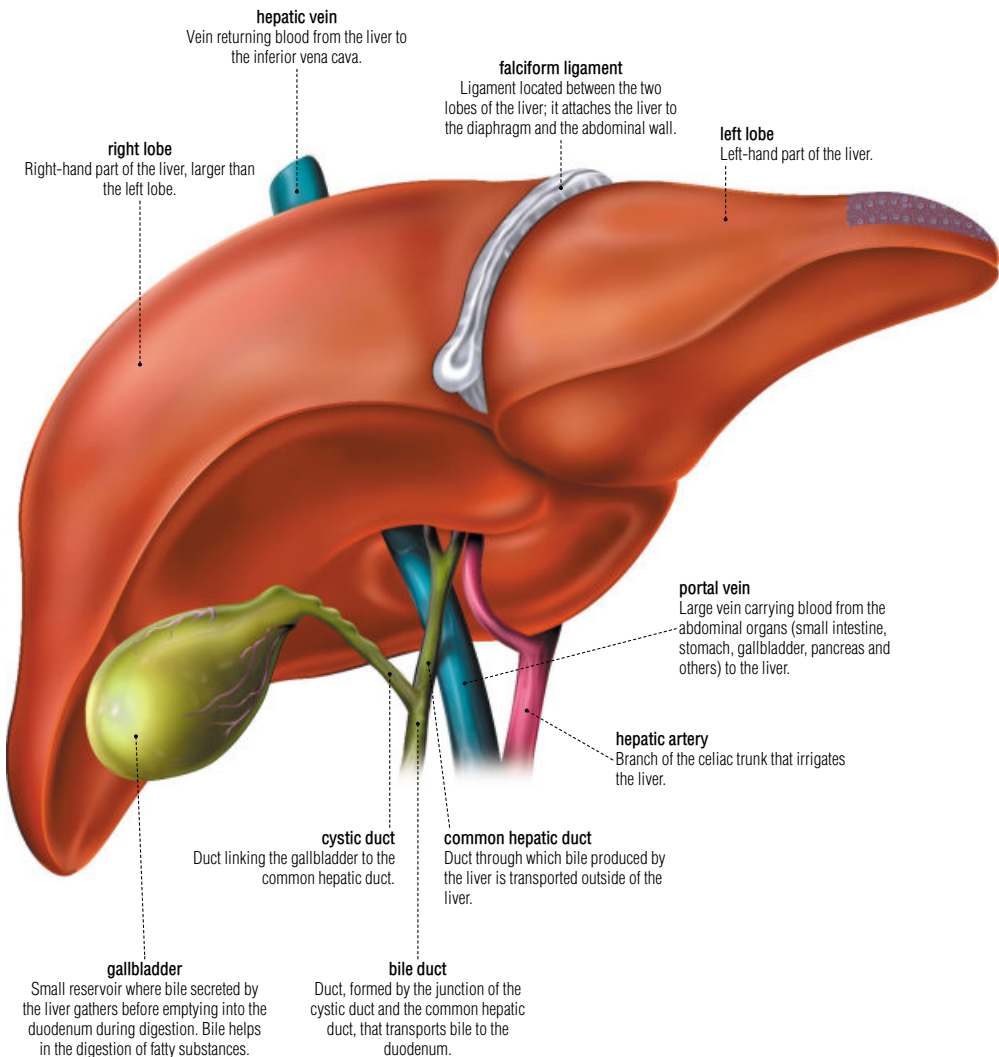
submucosa

Thin membrane located between the mucosa and the muscles; it contains numerous blood and lymphatic vessels.



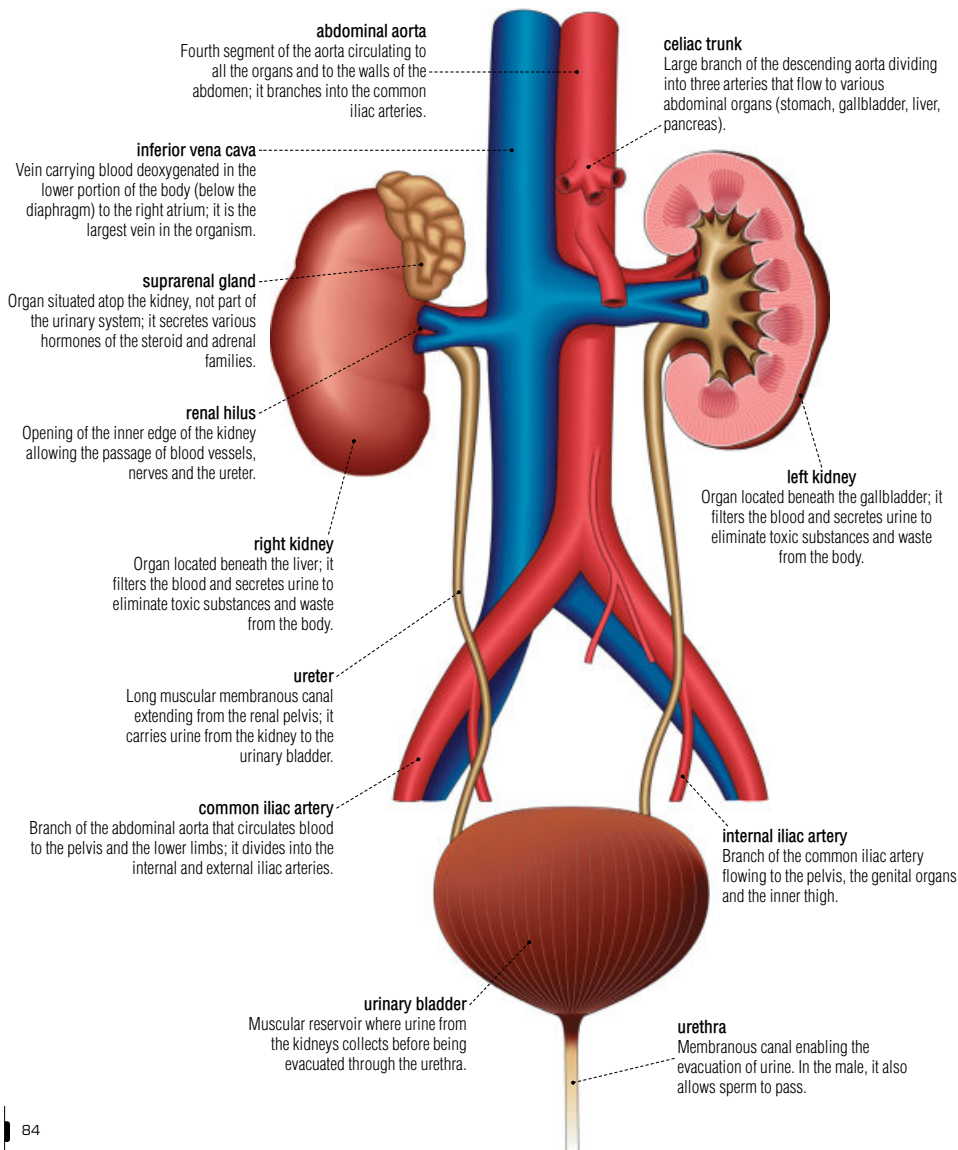
liver

Viscera that secretes bile, among other substances; bile helps digestion.



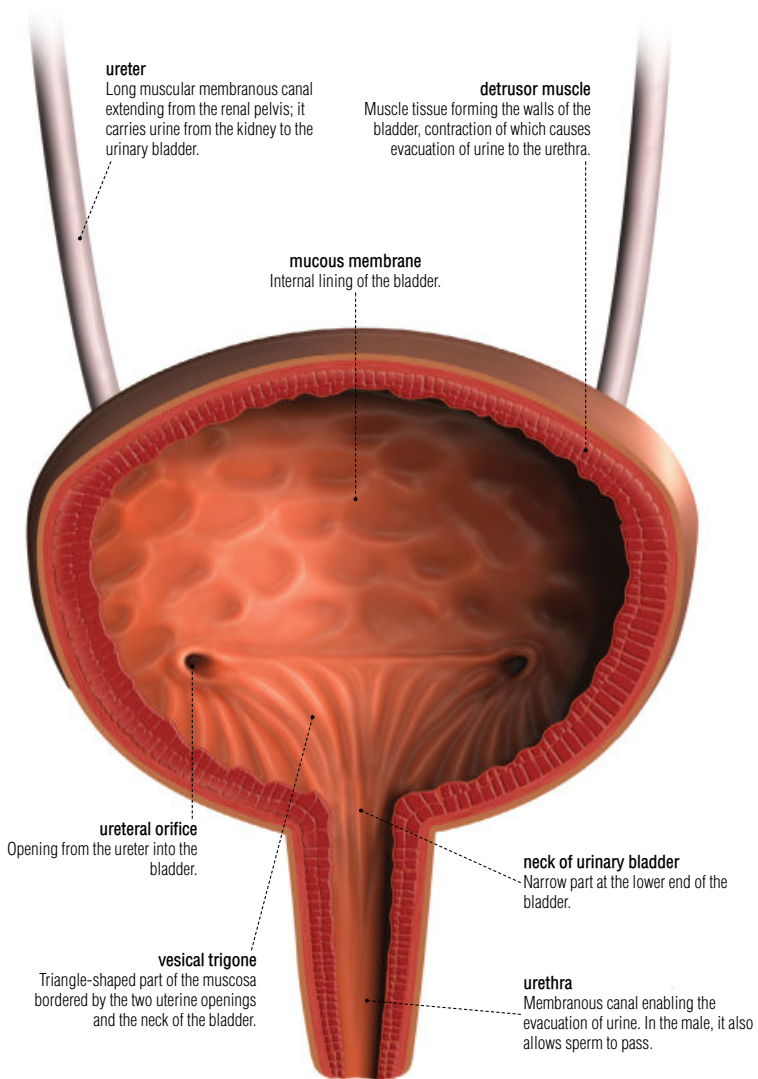
urinary system

Eliminates the organism's waste through secretion and evacuation of urine; it also regulates the quantity of water and salt in the body.



urinary bladder

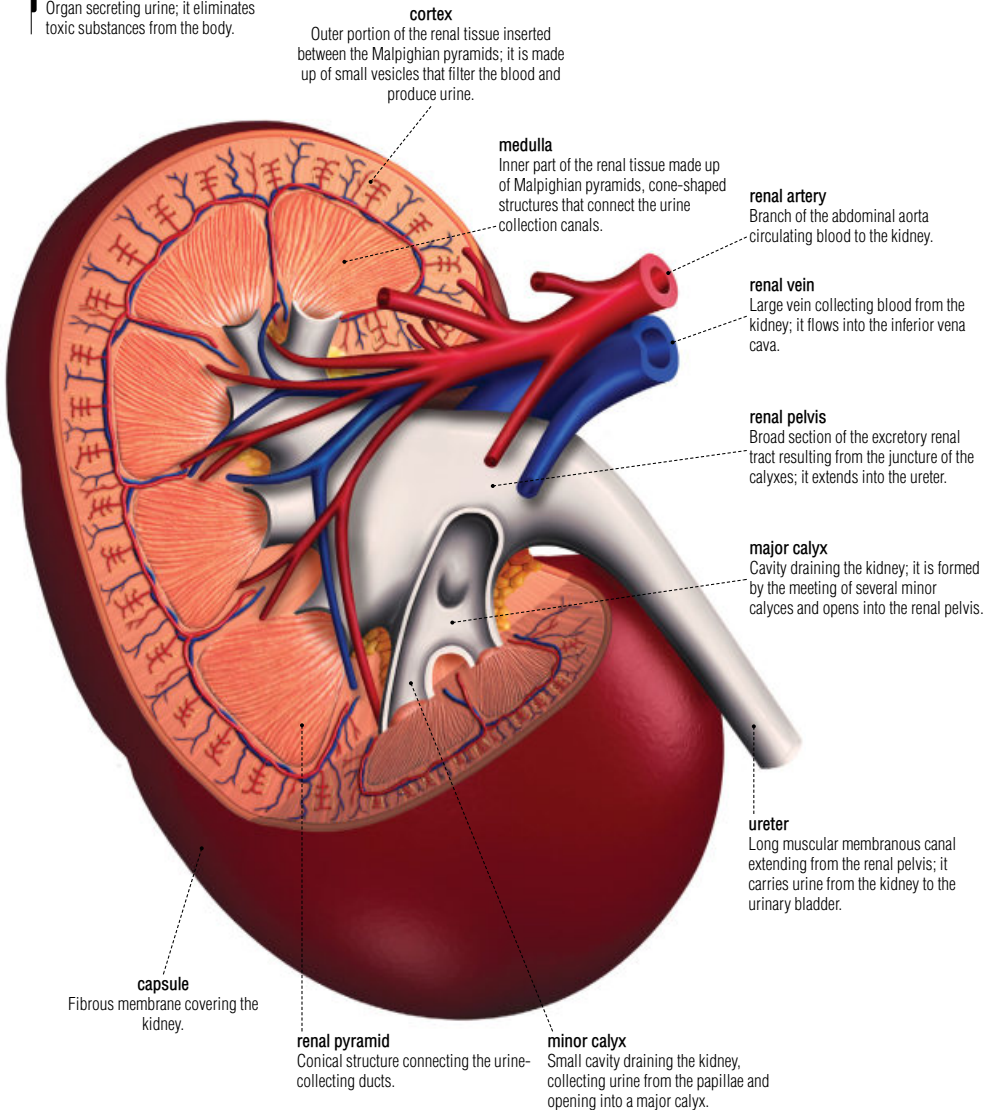
Muscular reservoir where urine from the kidneys collects before being evacuated through the urethra.



urinary system

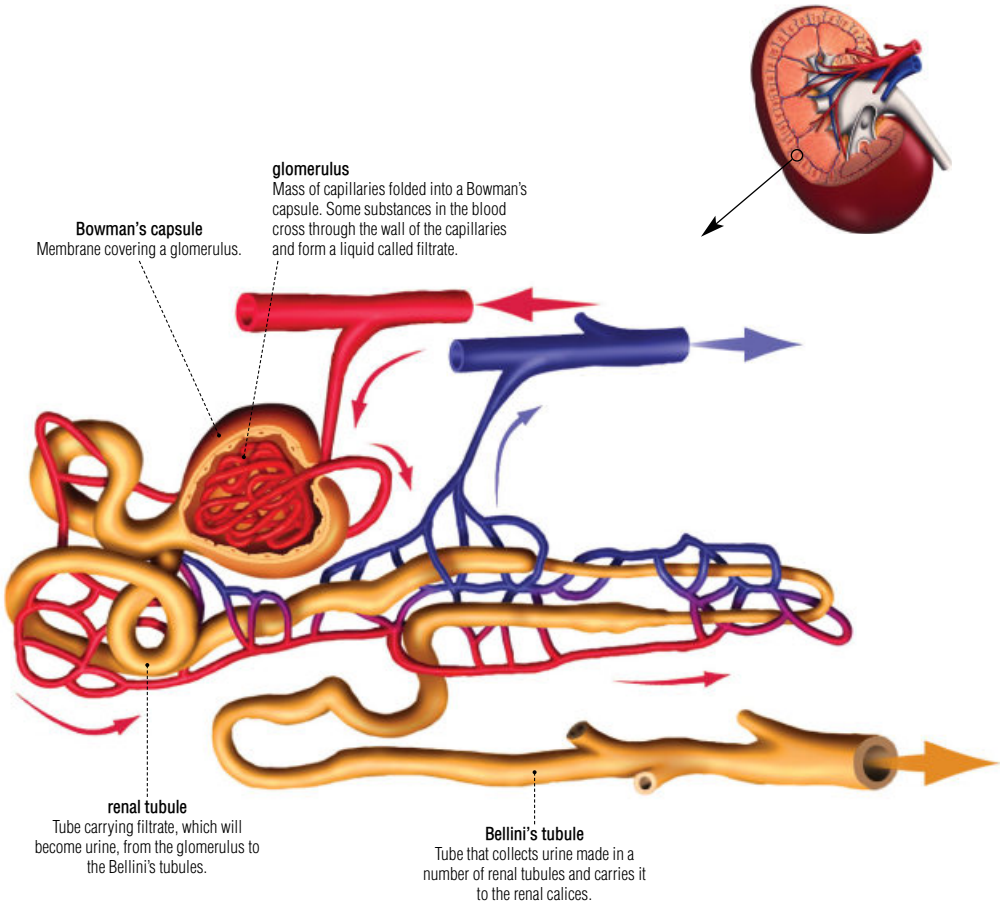
kidney

Organ secreting urine; it eliminates toxic substances from the body.



nephron

Unit that filters blood and secretes urine. The kidney contains about 1 million nephrons.



nervous system

It directs the movements of the organs and muscles, interprets sensory messages coming from the body and ensures psychic activity.

peripheral nervous system

Part of the nervous system formed by all the motor or sensory nerves (43 pairs) connecting the central nervous system to the organism.

brachial plexus

Network formed of the last four cervical nerves and the first dorsal nerve whose branches ensure motion and feeling in the upper limb.

median nerve

Branch of the brachial plexus providing nerve sensation to various muscles in the lower part of the forearm and part of the hand, where it divides into five branches.

ulnar nerve

Branch of the brachial plexus providing nerve sensation, with the median nerve, especially to the flexor muscles of the hand and toes.

lumbar plexus

Network formed of the first four lumbar nerves whose six branches ensure movement and sensation in the lower limb.

obturator nerve

Branch of the lumbar plexus providing nerve sensation especially to the abductor muscles of the inner thigh.

femoral nerve

Large branch of the lumbar plexus ensuring nerve sensation especially in the flexor muscles of the thigh and the extensor muscles of the leg.

sacral plexus

Network formed of several nerves whose branches ensure movement and sensation in the buttock and part of the thigh.

iliohypogastric nerve

Branch of the lumbar plexus ensuring nerve sensation in one section of the abdominal wall and in the genital organs.

sciatic nerve

The organism's largest nerve, originating in the sacral plexus, ensuring nerve and motor sensation in a large portion of the lower limb.

saphenous nerve

Branch of the femoral nerve ensuring nerve sensation in the inner leg and knee.

common peroneal nerve

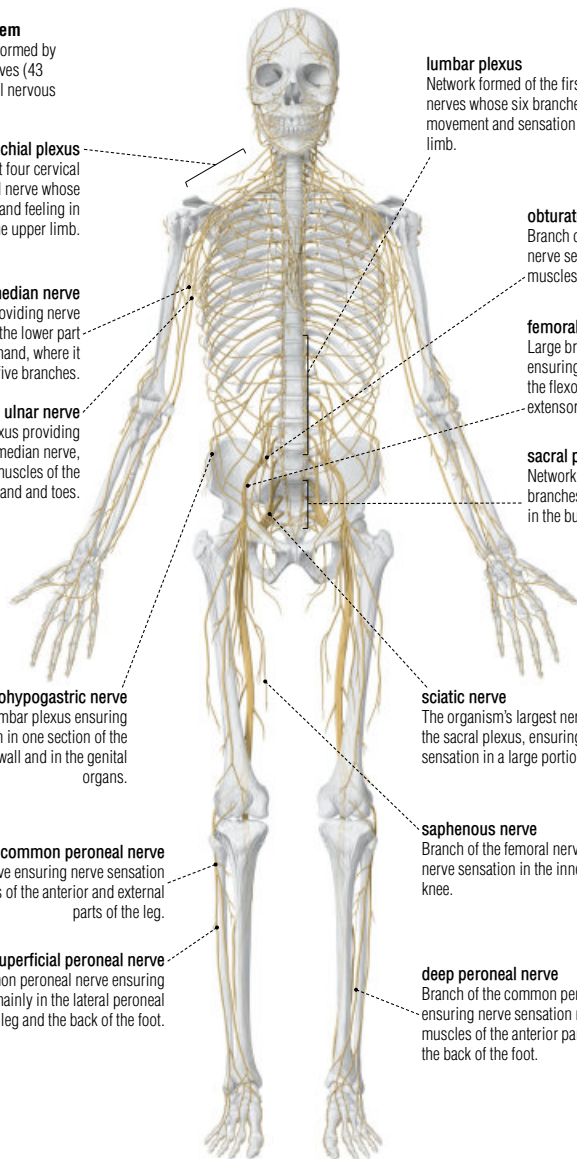
Branch of the sciatic nerve ensuring nerve sensation especially in the muscles of the anterior and external parts of the leg.

superficial peroneal nerve

Branch of the common peroneal nerve ensuring nerve sensation mainly in the lateral peroneal muscles of the outer leg and the back of the foot.

deep peroneal nerve

Branch of the common peroneal nerve ensuring nerve sensation mainly in the muscles of the anterior part of the leg and the back of the foot.



cranial nerves

Each of 12 pairs of nerves connected to the brain providing nerve sensation to the head and neck; they serve a motor or sensory function.

axillary nerve

Branch of the brachial plexus providing nerve sensation especially in the deltoid and small round muscles; it also ensures sensitivity in the shoulder joint.

radial nerve

Branch of the brachial plexus providing nerve sensation especially in the extensor muscles of the upper limb and fingers.

intercostal nerve

Nerve ensuring motor function and sensation in the muscles between the ribs, as well as in a portion of the diaphragm and the abdominal wall.

gluteal nerve

The lower gluteal nerve (originating in the posterior cutaneous nerve of thigh) and the upper gluteal nerve (branch of the sacral plexus) provide nerve sensation to the greatest, medium and small gluteal muscles.

digital nerve

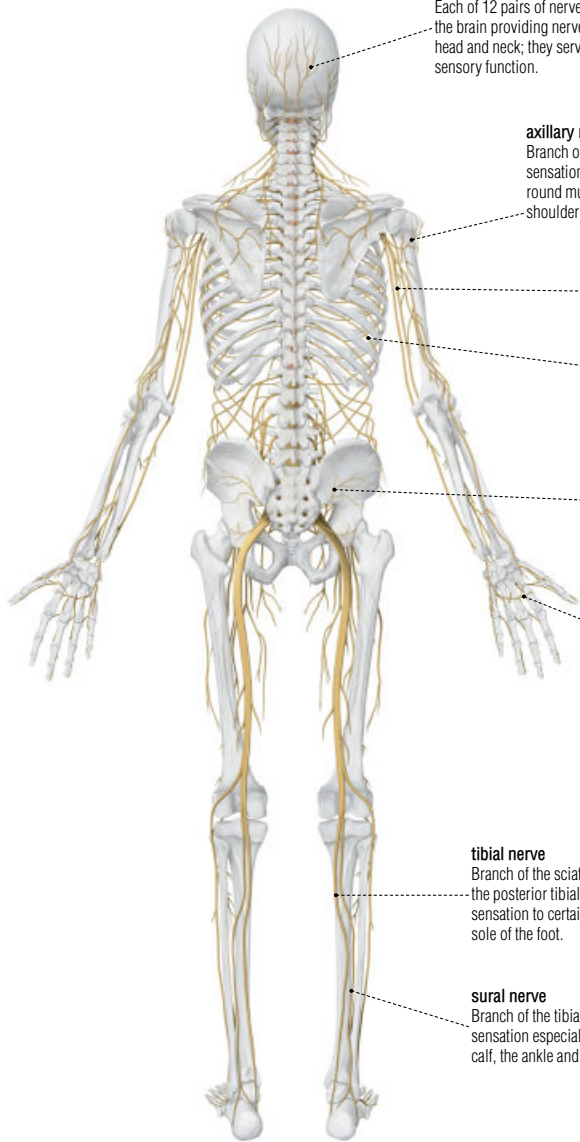
Nerve originating in the brachial plexus ensuring nerve sensation in the fingers of the hand.

tibial nerve

Branch of the sciatic nerve extending through the posterior tibial nerve and providing nerve sensation to certain muscles of the leg and the sole of the foot.

sural nerve

Branch of the tibial nerve ensuring nerve sensation especially to the outer part of the calf, the ankle and the heel.



nervous system

cranial nerves

Each of 12 pairs of nerves connected to the brain providing nerve sensation to the head and neck; they serve a motor or sensory function.

olfactory nerve

Sensory nerve involved in smell.

**optic nerve**

Sensory nerve responsible for vision, which transmits information from the eye to the brain.

**oculomotor nerve**

Motor nerve responsible for movements of the eye in the orbit and of the upper eyelid, as well as opening of the pupil.

**trochlear nerve**

Motor nerve involved in eye movements.

abducens nerve

Motor nerve involved in lateral movements of the eye.

**vestibulocochlear nerve**

Sensory nerve responsible for hearing and balance.

glossopharyngeal nerve

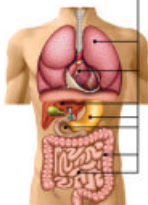
Mixed nerve associated with swallowing, the gag reflex, taste, and sensations from the back of the tongue and the pharynx.

**hypoglossal nerve**

Motor nerve that controls tongue movements to allow swallowing, chewing, and speaking.

vagus nerve

Mixed nerve that plays an important role in the autonomous nervous system by innervating all of the viscera.

**trigeminal nerve**

Mixed nerve that transmits sensations of the face to the brain and plays a role in mastication movements.

**facial nerve**

Mixed nerve that controls movements of the face and is involved in the sense of taste.

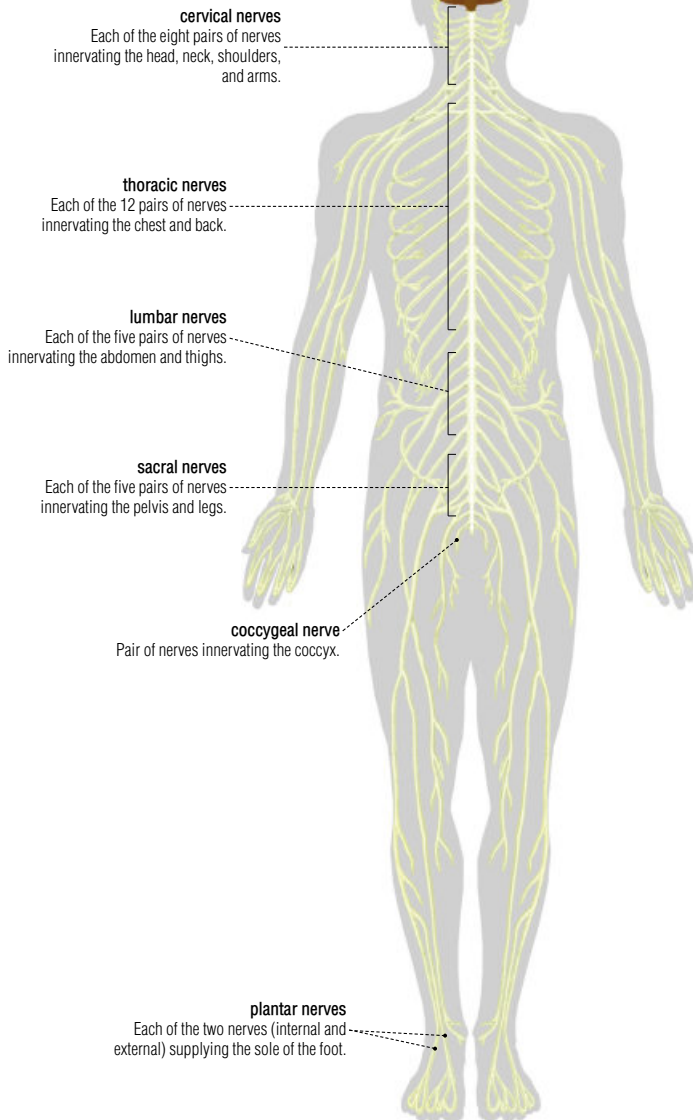
**accessory nerve**

Motor nerve that controls movements of the neck and swallowing.



spinal nerves

Each of the 31 pairs of mixed nerves (sensory and motor) conveying nerve messages between the spinal cord and the different parts of the body.



nervous system

central nervous system

Part of the nervous system connected to the peripheral nervous system formed by the encephalon and the spinal cord; it controls and deciphers nerve information.

cerebellum

Part of the encephalon that mainly controls motor coordination, equilibrium, muscle tone and posture.

cerebrum

Large part of the encephalon formed of two hemispheres; it contains the control center of the higher nerve functions (motor activities, language and others).

vertebral column

Movable bony axis made up of various parts articulating with each other (vertebrae); it supports the skeleton and contains the spinal cord.

spinal cord

Part of the central nervous system located in the vertebral column; it receives and transmits nerve information and releases the reflexes.

dura mater

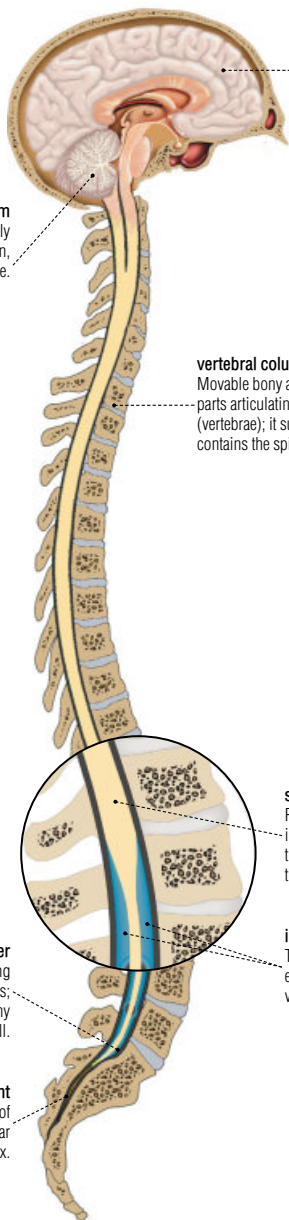
Thick and resistant outer meninx fusing with the tissue covering the spinal nerves; it does not adhere directly to the bony vertebral wall.

internal filum terminale

Terminal part of the dura mater extending to the second sacral vertebra.

terminal filament

Thin fibrous cord that is a continuation of the spinal cord between the second lumbar vertebra and the coccyx.



structure of the spinal cord

The spinal cord, protected by several solid and liquid membranes, is the source of 31 pairs of spinal nerves; it connects them to the encephalon.

posterior horn

Each of the terminal parts of the two masses of gray matter enclosing the associative neurons through which the sensory root enters the spinal cord.

sensitive root

Bundle of sensory nerve fibers (axons) communicating information from the periphery of the body to the spinal cord.

gray matter

Central part of the spinal cord primarily made of the cell bodies of neurons.

spinal ganglion

Bulge of the posterior sensory root of the spinal nerve; it encloses the cell bodies of the neuron sensors.

motor root

Bundle of motor nerve fibers (axons) communicating information from the spinal cord to the periphery of the body, especially the muscles.

anterior horn

Each of the terminal parts of two masses of gray matter enclosing the cell bodies of motor neurons and from which the motor root originates.

arachnoid

Meninx located between the dura mater and the pia mater.

dura mater

Thick and resistant outer meninx fusing with the tissue covering the spinal nerves; it does not adhere directly to the bony vertebral wall.

meninges

Each of three fibrous membranes surrounding and protecting the central nervous system (spinal cord, encephalon).

pia mater

Thin and highly veined inner meninx directly covering the spinal cord and the roots of the spinal nerves.

white matter

Section of the spinal cord made up of nerve fibers (axons) and surrounding the gray matter.

spinal cord

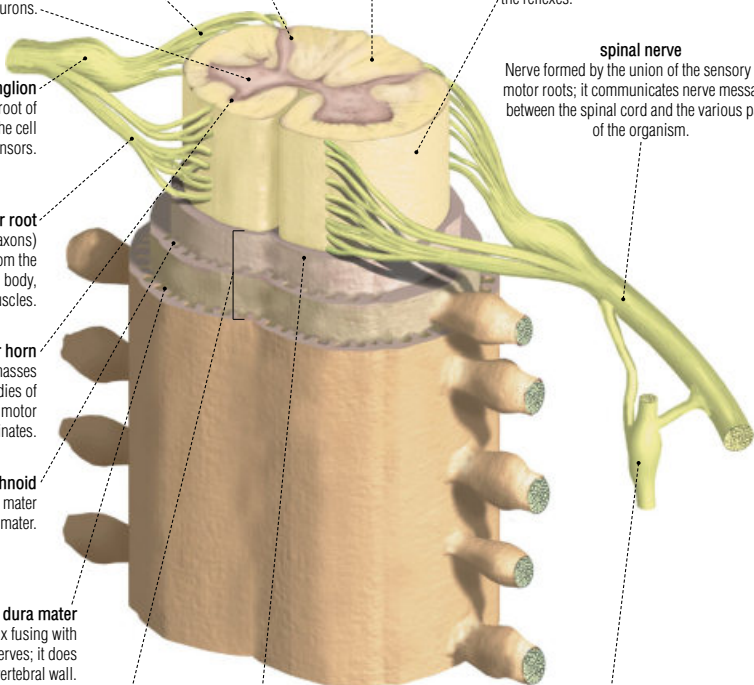
Part of the central nervous system located in the vertebral column; it receives and transmits nerve information and releases the reflexes.

spinal nerve

Nerve formed by the union of the sensory and motor roots; it communicates nerve messages between the spinal cord and the various parts of the organism.

sympathetic ganglion

Bulge made up of nerve cell bodies forming a chain on both sides of the spinal cord; it mainly controls contraction of the visceral muscles.



nervous system

brain

Part of the central nervous system located in the skull, made up of the cerebrum, cerebellum, and brainstem.

cerebrum

Large part of the encephalon formed of two hemispheres; it contains the control center of the higher nerve functions (motor activities, language and others).

corpus callosum

Thin plate of a white substance formed by a bundle of nerve fibers that connect the two cerebral hemispheres.

pineal body

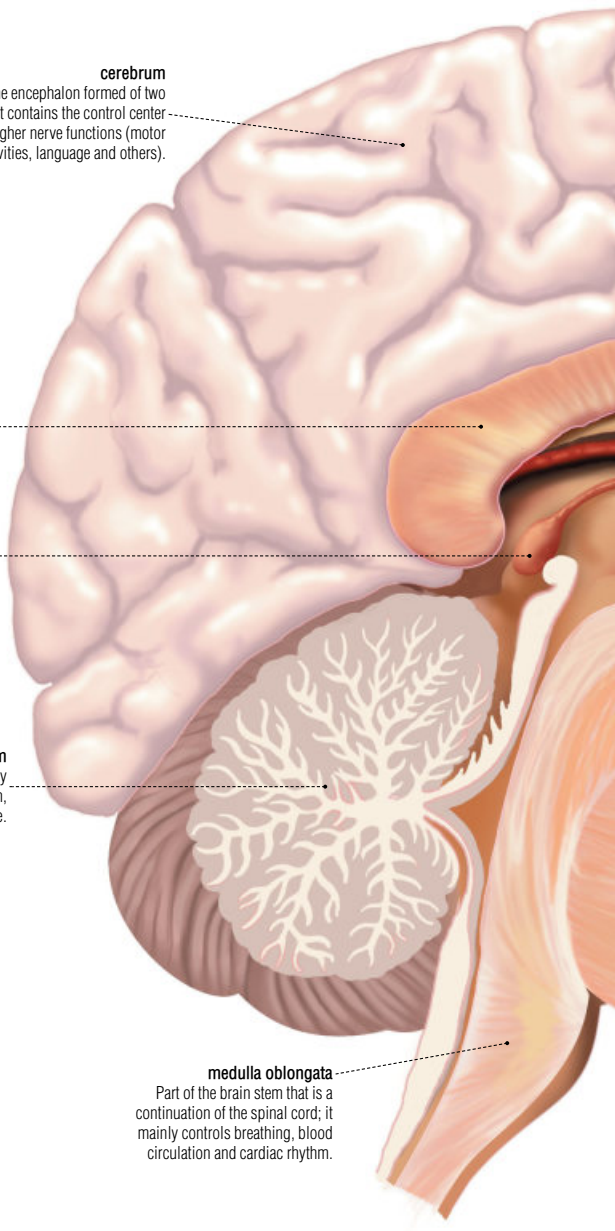
Gland secreting a hormone (melatonin) that mainly influences the biological rhythms.

cerebellum

Part of the encephalon that mainly controls motor coordination, equilibrium, muscle tone and posture.

medulla oblongata

Part of the brain stem that is a continuation of the spinal cord; it mainly controls breathing, blood circulation and cardiac rhythm.



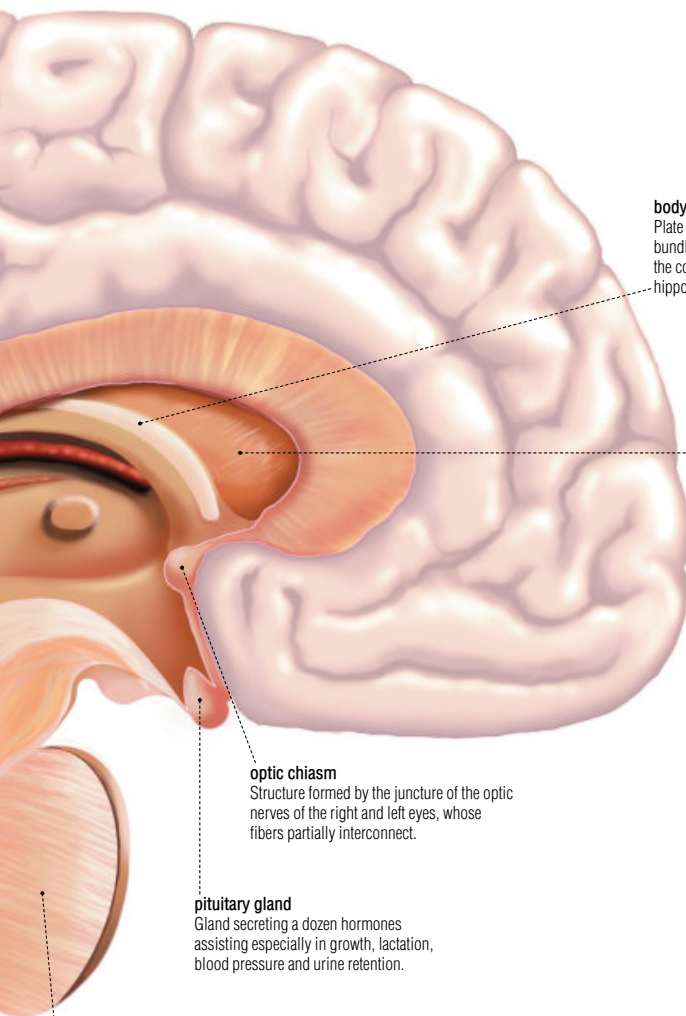
**body of fornix**

Plate of a white substance formed by a bundle of nerve fibers and located below the corpus callosum; it connects the hippocampus to the hypothalamus.

septum pellucidum

Thin double membrane separating the anterior part of the two cerebral hemispheres and extending from the corpus callosum to the body of fornix.

optic chiasm

Structure formed by the juncture of the optic nerves of the right and left eyes, whose fibers partially interconnect.

pituitary gland

Gland secreting a dozen hormones assisting especially in growth, lactation, blood pressure and urine retention.

pons Varolii

Part of the cerebral trunk made up of nerve fibers; it serves as a bridge between the brain, the cerebellum and the spinal bulb, and aids breathing.

cerebral convolution

Portion of the surface of a cerebral hemisphere bounded by a secondary groove. Their contours vary from one individual to another.

frontal lobe

Located at the front of the cerebral hemispheres, the frontal lobes are responsible for thought, language, emotions, and voluntary movements.

parietal lobe

Part of the cerebral hemispheres involved with taste, touch, pain, and language comprehension.

occipital lobe

Located at the back of the cerebral hemispheres, the occipital lobes play a role in deciphering visual information.

fissure

Deep groove defining the lobes of each of the two cerebral hemispheres.

temporal lobe

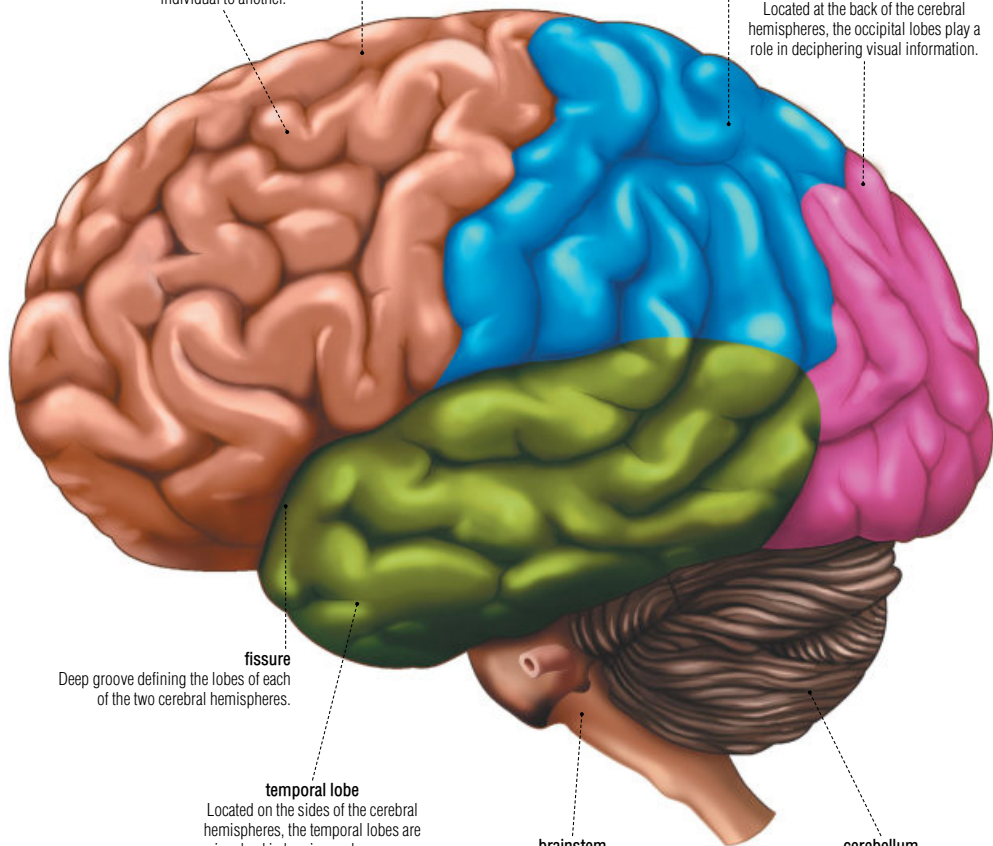
Located on the sides of the cerebral hemispheres, the temporal lobes are involved in hearing and memory.

brainstem

Part of the brain extending the spinal cord, governing a number of vital functions and transmissions between the spinal cord and the brain.

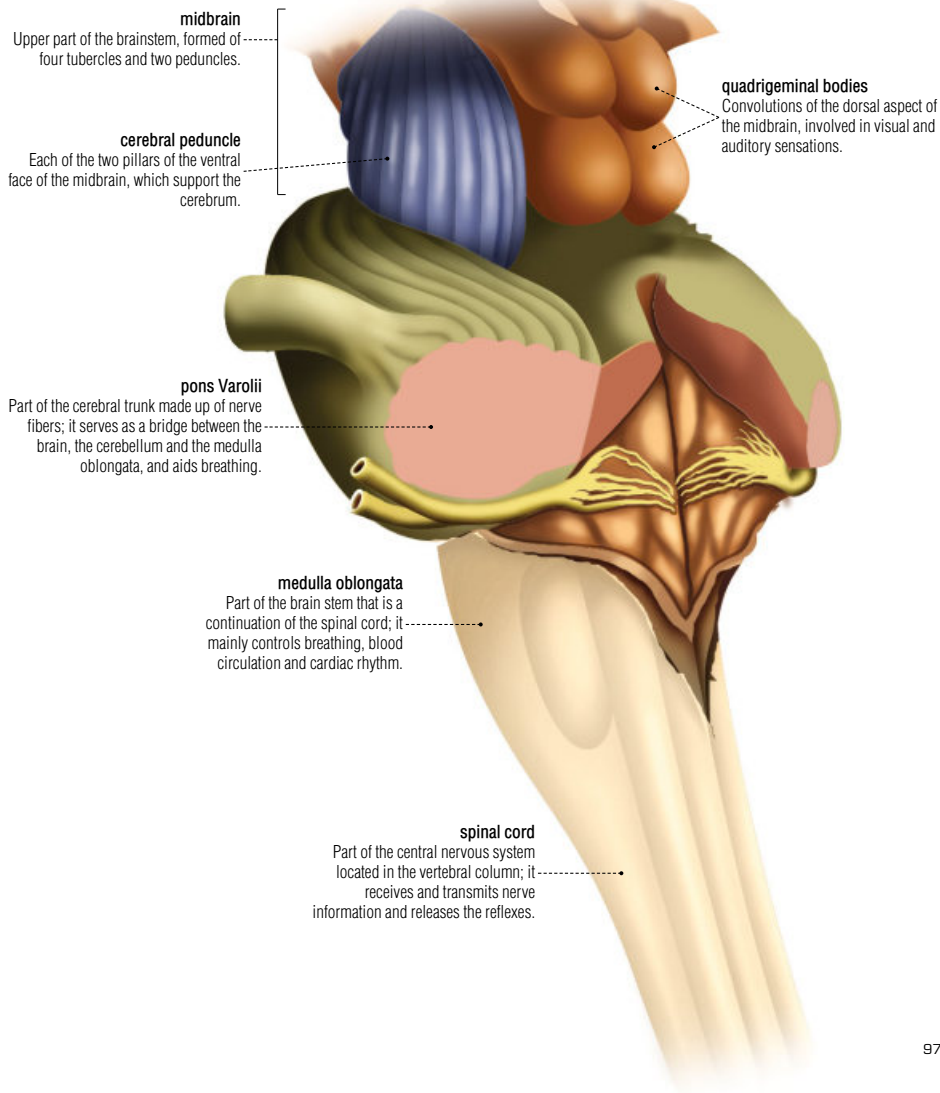
cerebellum

Part of the brain that mainly controls motor coordination, equilibrium, muscle tone and posture.



brainstem

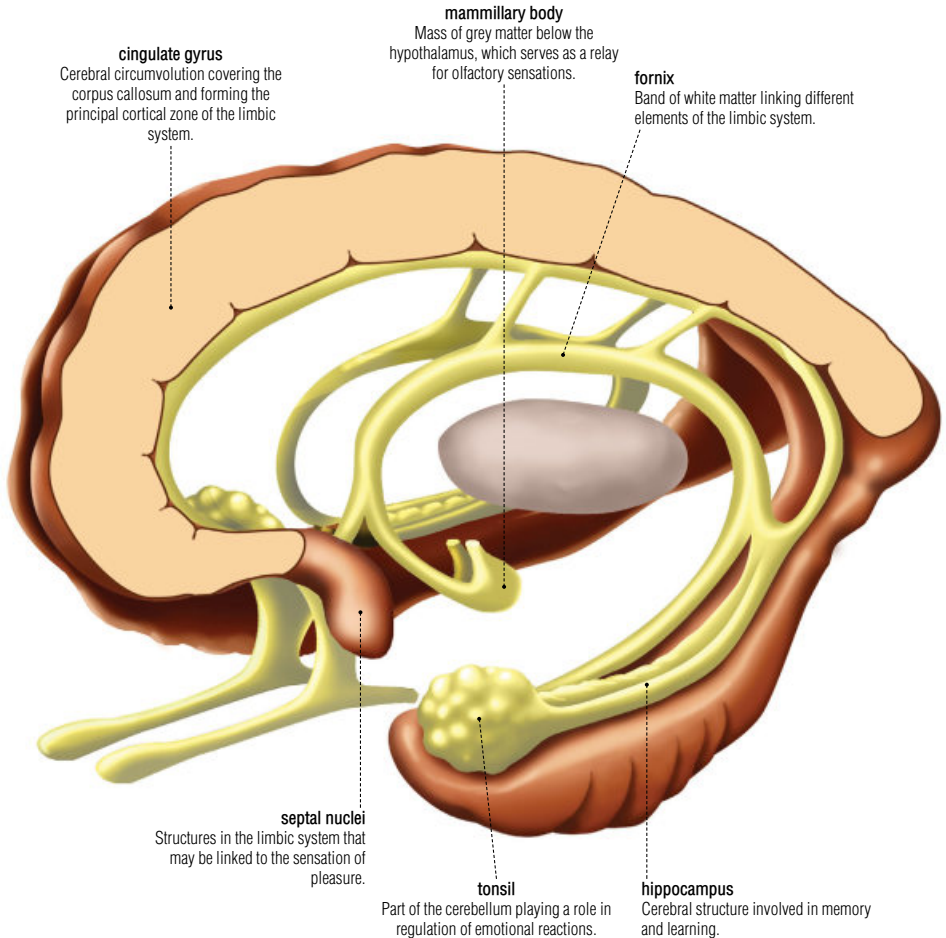
Part of the brain extending the spinal cord, governing a number of vital functions and transmissions between the spinal cord and the brain.



nervous system

limbic system

All of the nerve structures of the cerebrum involved in emotions, memory, and learning.



cervical vertebra

Bony part of the neck forming the upper terminal part of the vertebral column.

spinous process

Posterior middle protuberance of the vertebra; the attachment point for the back muscles.

dura mater

Thick and resistant outer meninx fusing with the tissue covering the spinal nerves; it does not adhere directly to the bony vertebral wall.

epidural space

Space filled with blood vessels and adipose tissue; separates the dura mater from the vertebra and has a protective function.

cerebrospinal fluid

Fluid contained between the arachnoid and the pia mater around the spinal cord and serving mainly as a shock absorber; it protects the entire central nervous system.

spinal cord

Part of the central nervous system located in the vertebral column; it receives and transmits nerve information and releases the reflexes.

posterior root

Bundle of sensitive nerve fibers that carry the spinal ganglions and communicate information from the body's periphery to the spinal cord.

transverse process

Bony protuberance extending laterally from each side of the vertebra; the muscles are attached to it.

anterior root

Bundle of motor nerve fibers (axons) communicating information from the spinal cord to the periphery of the body, especially the muscles.

vertebral body

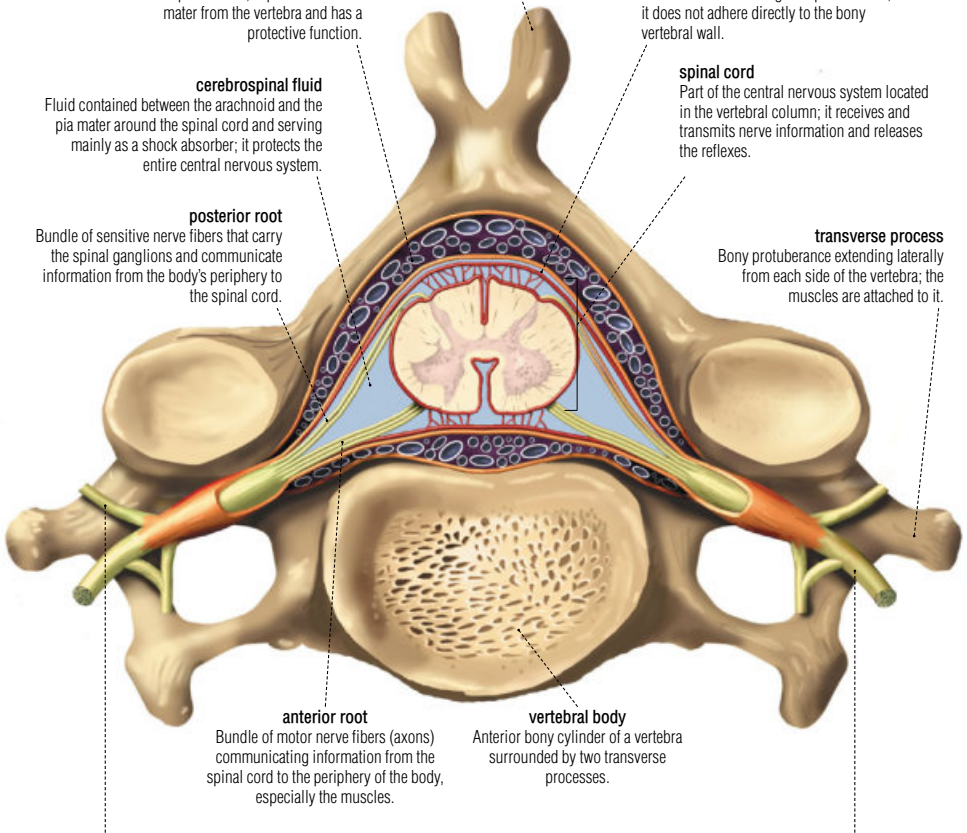
Anterior bony cylinder of a vertebra surrounded by two transverse processes.

communicating ramus

Branch of the spinal nerve connecting the ganglions of the sympathetic trunk to the spinal cord.

spinal nerve

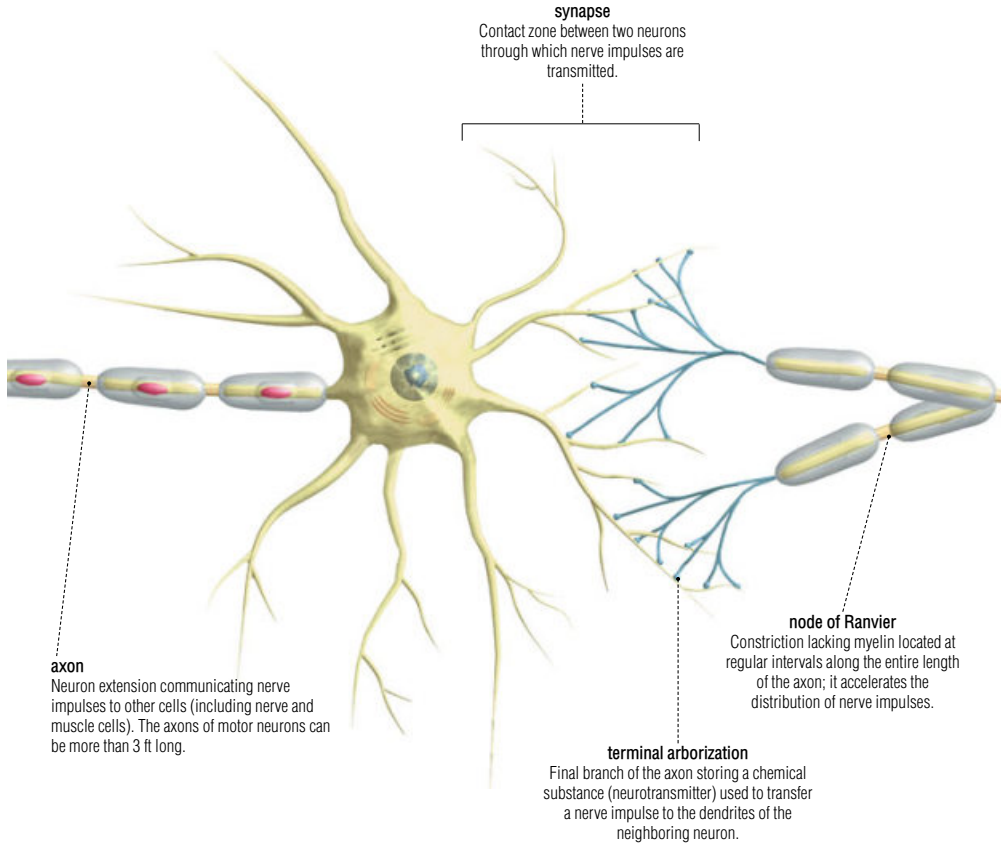
Nerve formed by the union of the sensory and motor roots; it communicates nerve messages between the spinal cord and the various parts of the organism.

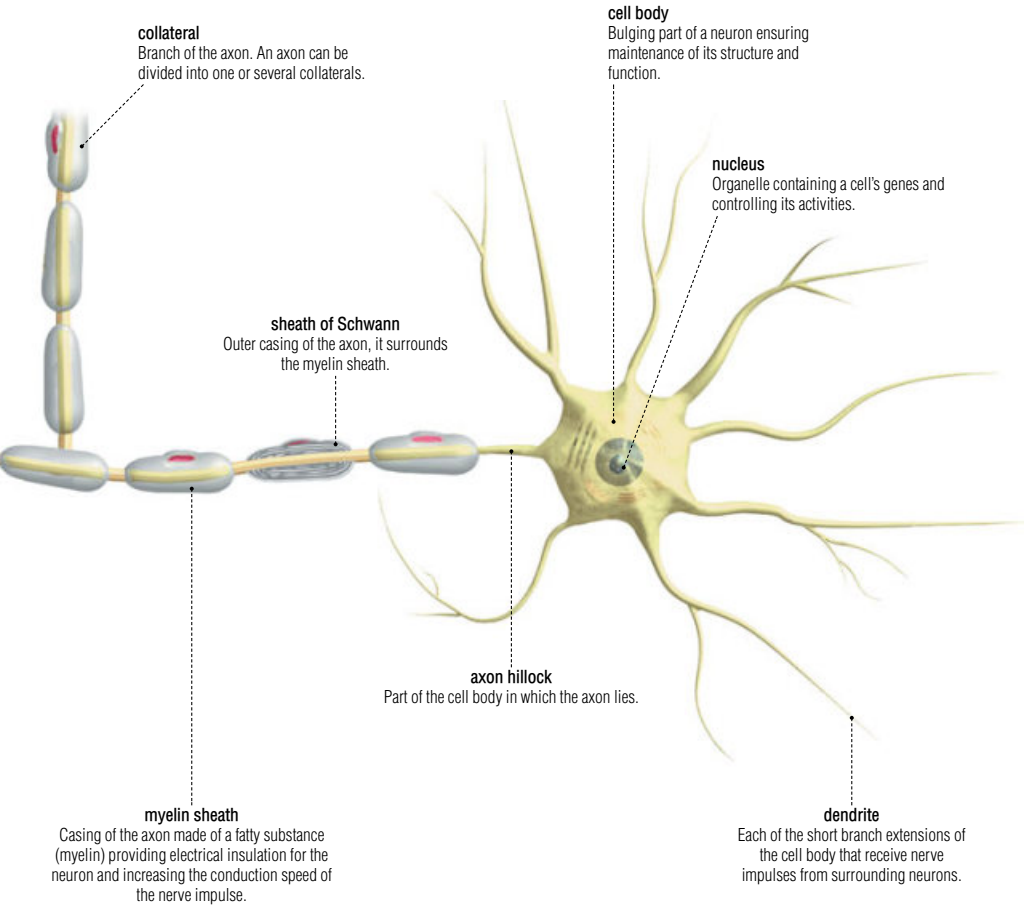


nervous system

chain of neurons

All the interconnected complex nerve cells receiving, communicating and transmitting messages in the form of nerve impulses.





nervous system

sensory impulse

Electrical signal propagated along the nerve fibers (axons) enabling the nerve cells to communicate and to transmit messages within the organism.

spinal ganglion

Bulge of the posterior sensory root of the spinal nerve; it encloses the cell bodies of the neuron sensors.

sensory root

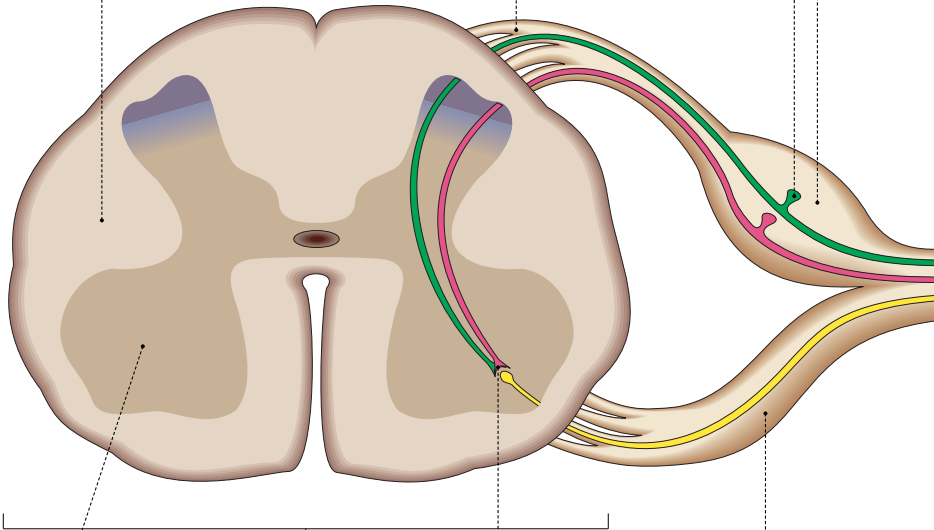
Bundle of sensory nerve fibers (axons) communicating information from the periphery of the body to the spinal cord.

protoneuron

First neuron of the sensory tract; it transmits information from a sensory organ to the spinal cord.

white matter

Section of the spinal cord made up of nerve fibers (axons) and surrounding the gray matter.

**gray matter**

Central part of the spinal cord primarily made of the cell bodies of neurons.

synapse

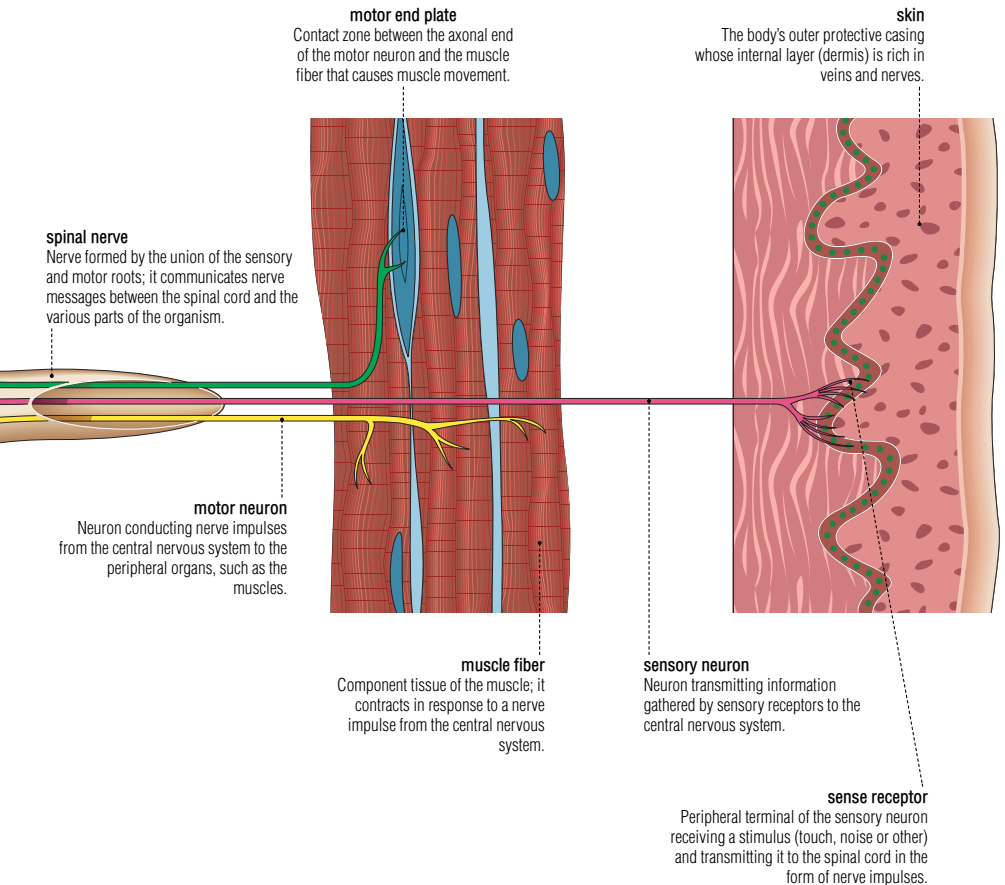
Contact zone between two neurons through which nerve impulses are transmitted.

motor root

Bundle of motor nerve fibers (axons) communicating information from the spinal cord to the periphery of the body, especially the muscles.

spinal cord

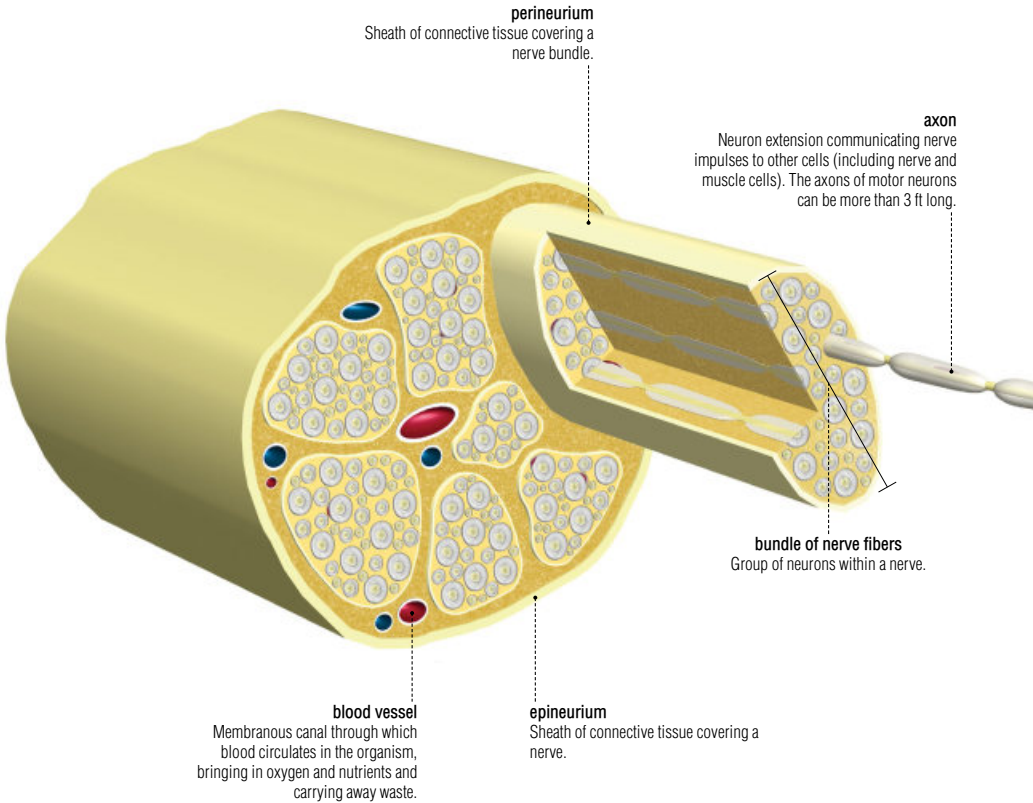
Part of the central nervous system located in the vertebral column; it receives and transmits nerve information and releases the reflexes.



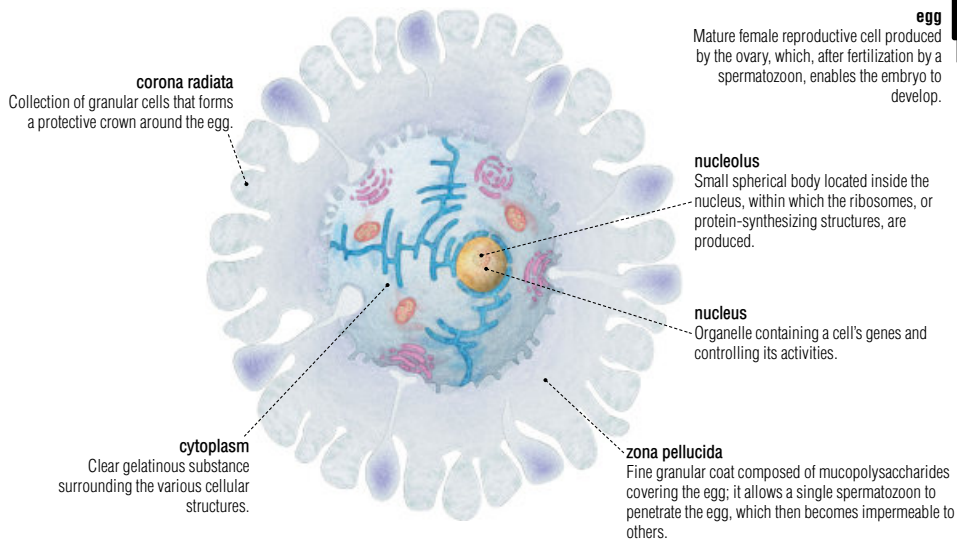
nervous system

structure of a nerve

Nerve: long strand formed of nerve bundles, which transmits sensory or motor messages between the central nervous system and the rest of the body.

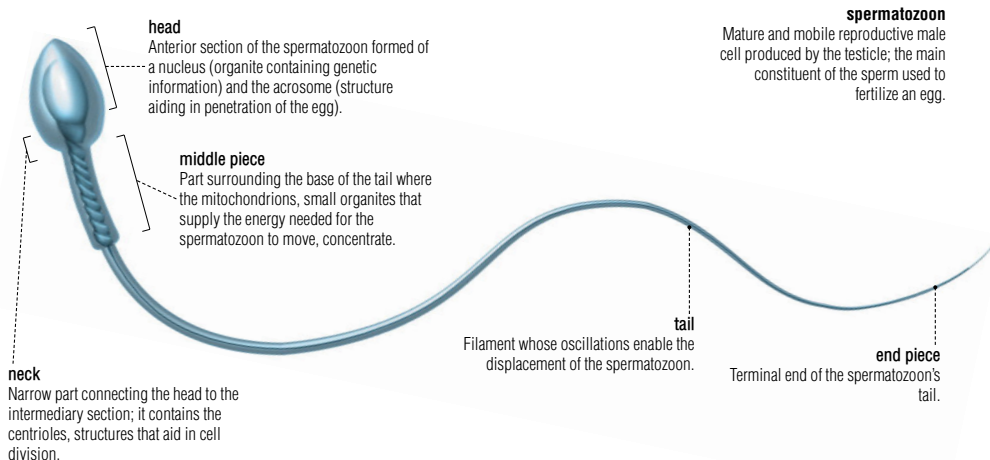


female reproductive organs



male reproductive organs

The male genitalia ensure reproduction; they produce spermatozoa and eject them into the female genital tract during copulation.



touch

Sense enabling the skin to detect sensations (contact, heat, pain and others) due to specialized receptors spread widely over the surface of the body.

skin

Outer covering of the body consisting of three layers; it has a role in protection, tactile sensation and thermoregulation.

hair
Threadlike epidermal outgrowth present on almost the entire body having a sebaceous gland and an arrector pili muscle; it plays a protective role.

stratum corneum
Layer of the epidermis consisting of dead cells rich in keratin (the protein that protects the skin); it is shed as a new layer is formed.

stratum lucidum
Layer of the epidermis usually present only in the thick skin of the palms of the hands and soles of the feet.

stratum granulosum
Layer of the epidermis whose cells help to form keratin, which renders the skin impermeable.

stratum basale
Layer of the epidermis whose cells divide and migrate toward the surface to form the upper layers, thus ensuring renewal of the epidermis.

sebaceous gland
Organ connected to a hair follicle secreting a fatty substance (sebum) that lubricates the hair and skin, making them impermeable to air and water.

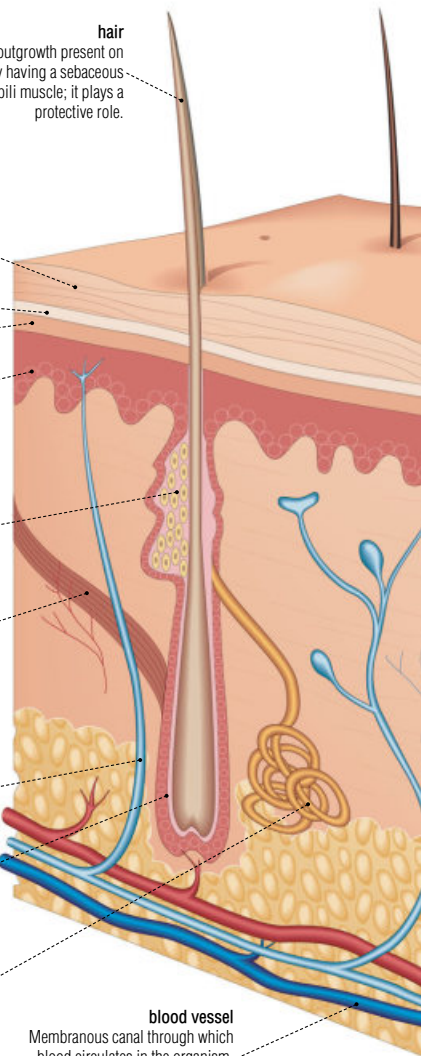
arrector pili muscle
Muscle attached to a hair follicle and whose contraction raises the hair on end as a result of cold or fear.

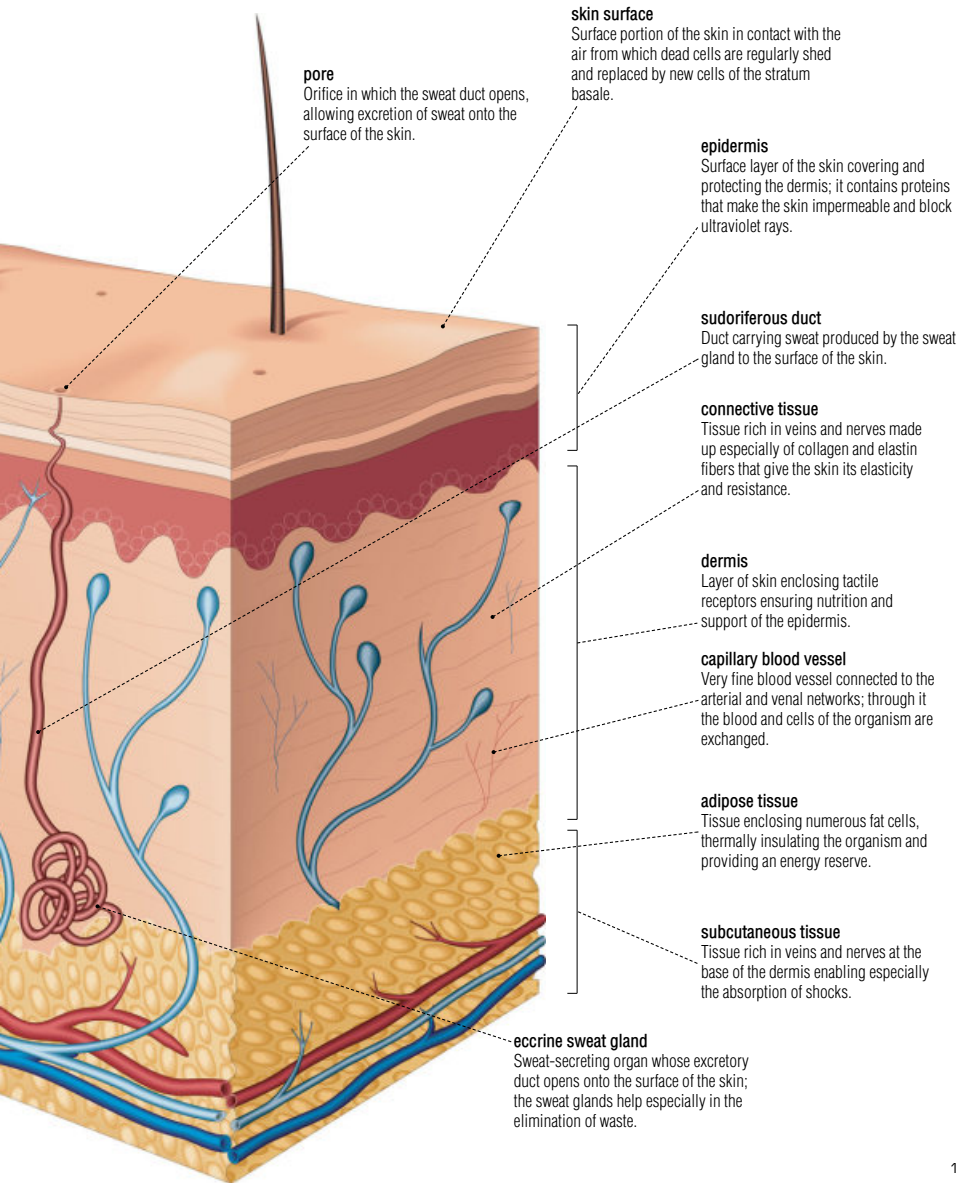
nerve fiber
Structure formed of neuron extensions along which the skin's sensory information travels.

hair follicle
Small cavity of the dermis and hypodermis in which the hair root is implanted and which receives secretions from the sebaceous and sweat glands.

apocrine sweat gland
Sweat-secreting organ whose excretory duct opens into the hair follicle.

blood vessel
Membranous canal through which blood circulates in the organism, bringing in oxygen and nutrients and carrying away waste.





hand

Terminal part of the upper limb having a tactile and prehensile function, with a thumb opposable to the other fingers.

palm

Inner portion of the hand corresponding to the metacarpus and located between the wrist and the proximal phalanges of the fingers.

middle finger

Third and longest digit of the hand.

third finger

Fourth digit of the hand. Rings are worn on this finger, hence it is also called the ring finger.

index finger

Second digit of the hand used to point, hence its name.

thumb

First digit of the hand formed of two phalanges; short and strong, it moves in such a way that it is opposable to the other digits, thereby enabling grasping.

little finger

Last and smallest of the fingers of the hand.



back

Outer part of the hand corresponding to the metacarpus and located between the wrist and the proximal phalanges of the fingers.

fingernail

Hard corneous plate covering and protecting the back of the distal phalanx; it also has a prehensile function and is continually growing.

lunula

Whitish section between the root and the body of the nail corresponding to the visible front portion of the matrix.

wrist

Joint of the hand (carpus) articulating with the forearm (radius); it mainly enables the hand to flex and extend.



touch

finger

Each of the five terminal parts of the hand containing numerous Meissner's corpuscles, giving them great sensitivity.

middle phalanx

Second phalange of the finger between the proximal and distal phalanges.

epidermis

Surface layer of the skin covering and protecting the dermis; it contains proteins that make the skin impermeable and block ultraviolet rays.

dermis

Layer of skin enclosing tactile receptors ensuring nutrition and support of the epidermis.

nail matrix

Section of the epidermis from which the nail grows.

root of nail

Base of the nail implanted in the matrix and protected by a fold of skin (cuticle).

lunula

Whitish section between the root and the body of the nail corresponding to the visible front portion of the matrix.

body of nail

Central pinkish section of the nail adhering to the nail bed.

free margin

Whitish terminal part of the nail extending beyond the finger.

digital pulp

Fleshy terminal part of the inner finger.

distal phalanx

Last phalange of the finger bearing a nail.

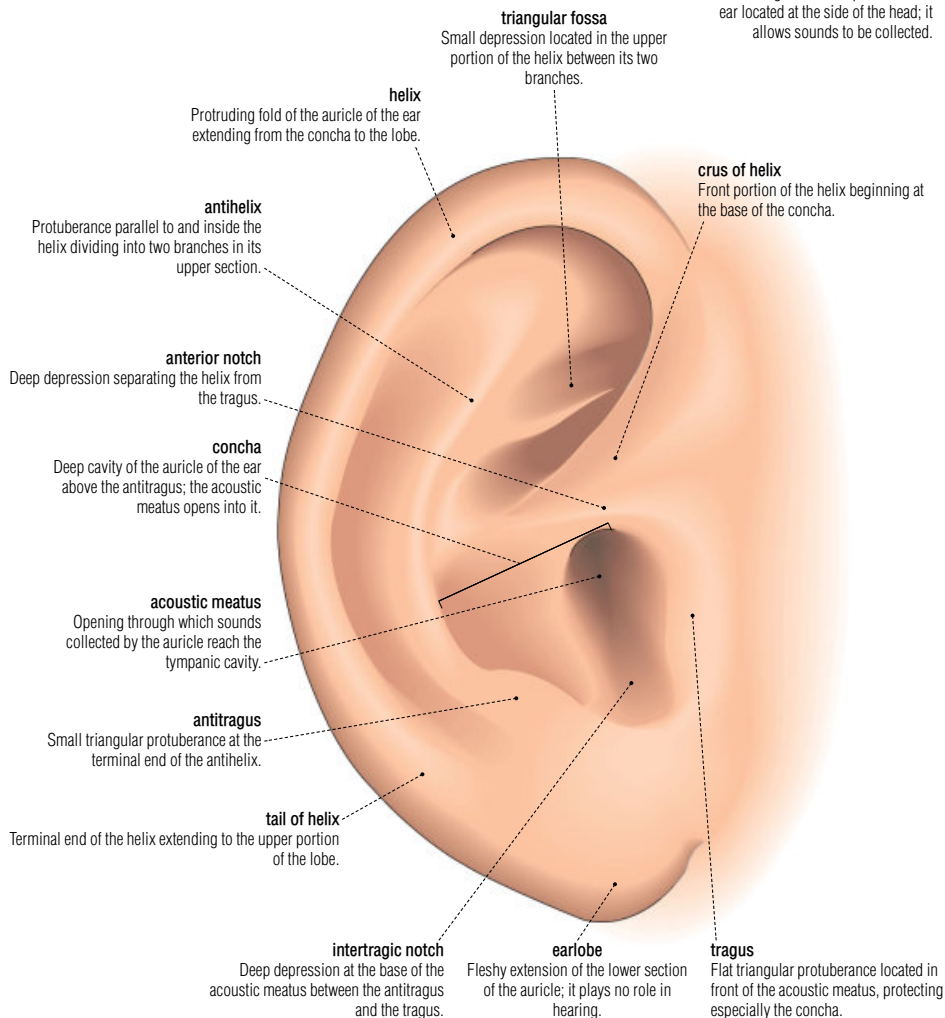
nail bed

Portion of the finger upon which the nail sits containing numerous blood vessels, thus nourishing the nail.

Sense that perceives sounds and maintains balance; the human ear is capable of distinguishing almost 400,000 sounds.

auricle

Soft cartilaginous outer portion of the ear located at the side of the head; it allows sounds to be collected.



hearing

structure of the ear

The ear is made up of three distinct parts; hearing is controlled by the inner ear, which contains the sensory organs.



external ear

Visible portion of the ear enabling sounds to be collected and directed to the middle ear through the acoustic meatus.



middle ear

Air-filled cavity hollowed out of the temporal bone; it receives sounds from the external ear, amplifies them through the ossicles and transmits them to the internal ear.

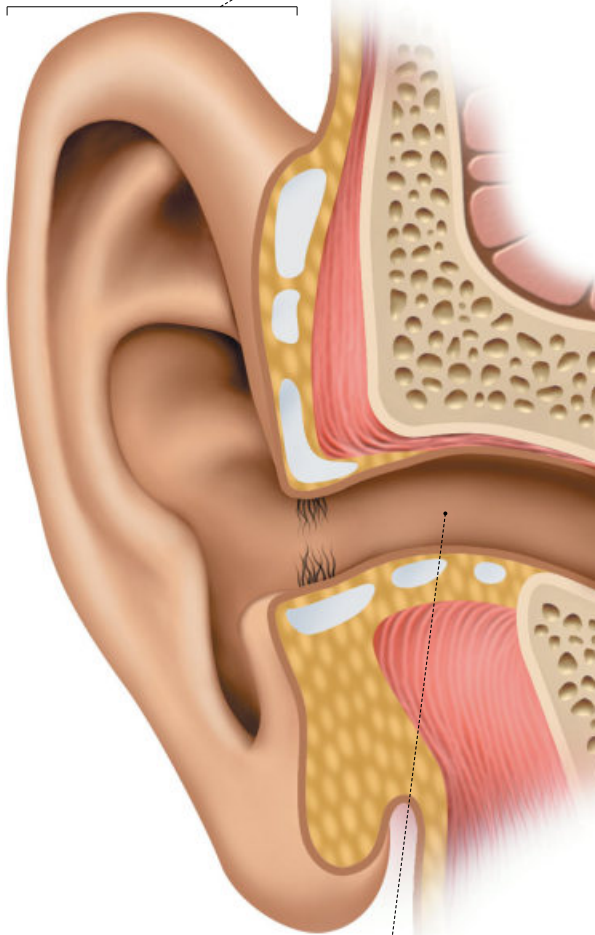


internal ear

Liquid-filled cavity hollowed out of the temporal bone that transforms sound vibrations into nerve impulses to be interpreted by the brain.

auricle

Soft cartilaginous outer portion of the ear located at the side of the head; it allows sounds to be collected.



acoustic meatus

Canal carrying the sounds collected by the pinna to the ear drum. It is lined with hair and covered with cerumen, a waxy substance that retains dust particles.

ear drum

Slender resistant elastic membrane; it vibrates when sound waves are received from the auditory canal, then transmits the waves to the ossicles.

auditory ossicles

The smallest bones in the human body, held in place by several muscles and ligaments; they amplify the vibrations of the ear drum.

posterior semicircular canal

Vertical canal parallel to the temporal bone; it monitors head movements to ensure that equilibrium is maintained.

superior semicircular canal

Vertical canal perpendicular to the temporal bone; it monitors head movements to ensure that equilibrium is maintained.

lateral semicircular canal

Horizontal canal; it monitors head movements to ensure that equilibrium is maintained.

vestibular nerve

Nerve transmitting messages related to equilibrium to the brain; it emanates from the vestibule and the semicircular canals.

cochlear nerve

Nerve transmitting auditory messages collected in the cochlea to the brain. The cochlear and vestibular nerves join to form the auditory nerve.

vestibule

Bony structure into which the three semicircular canals open; with these canals, it is responsible for equilibrium.

cochlea

Bony structure intended for hearing; it receives vibrations from the ossicles and transforms them into nervous impulses before transmitting them to the brain.

auditory ossicles

Each of the three small interarticulated bones of the middle ear that amplify the vibrations of the ear drum and transmit them to the internal ear.

Eustachian tube

Tube connecting the middle ear to the nasopharynx; it allows outside air to pass through, thus equalizing air pressure on both sides of the ear drum.

incus

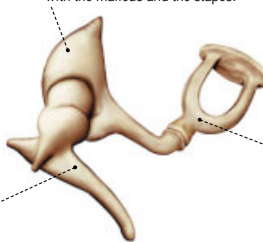
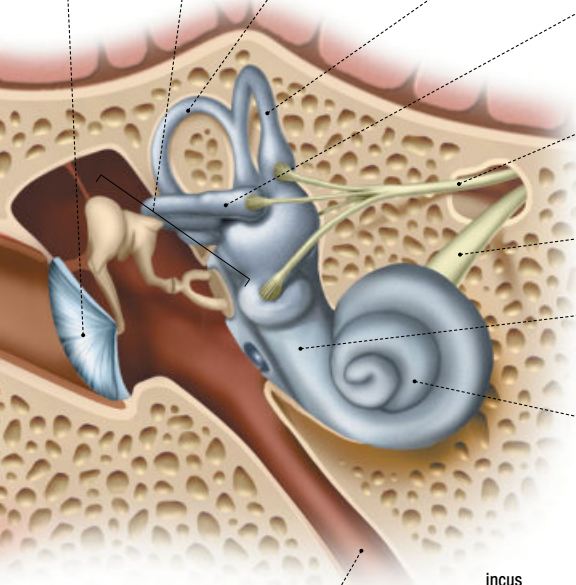
Auricle of the middle ear articulating with the malleus and the stapes.

malleus

Auricle of the middle ear transmitting vibrations to the incus from the ear drum (to which it is attached).

stapes

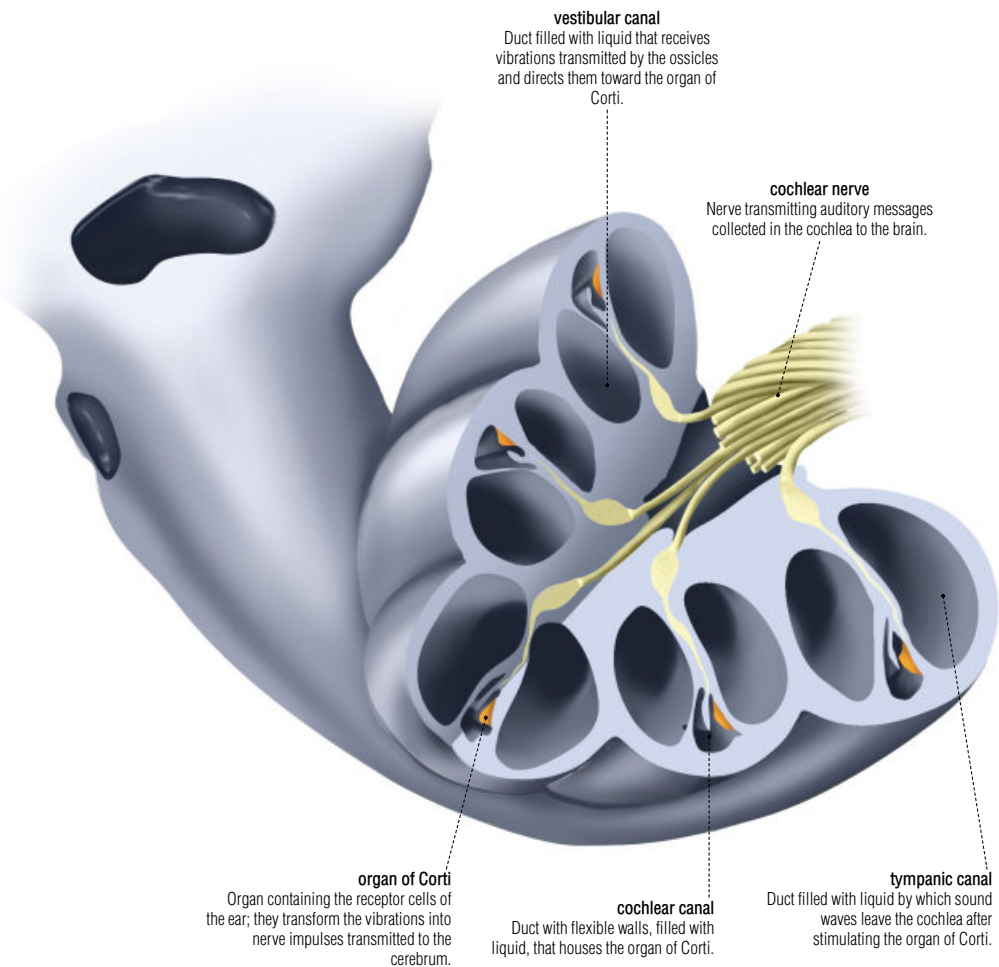
Auricle of the middle ear transmitting vibrations from the incus to the internal ear; at about .15 in long, the stapes is the smallest bone in the body.



hearing

cochlea

Bony structure intended for hearing; it receives vibrations from the ossicles and transforms them into nervous impulses before transmitting them to the brain.



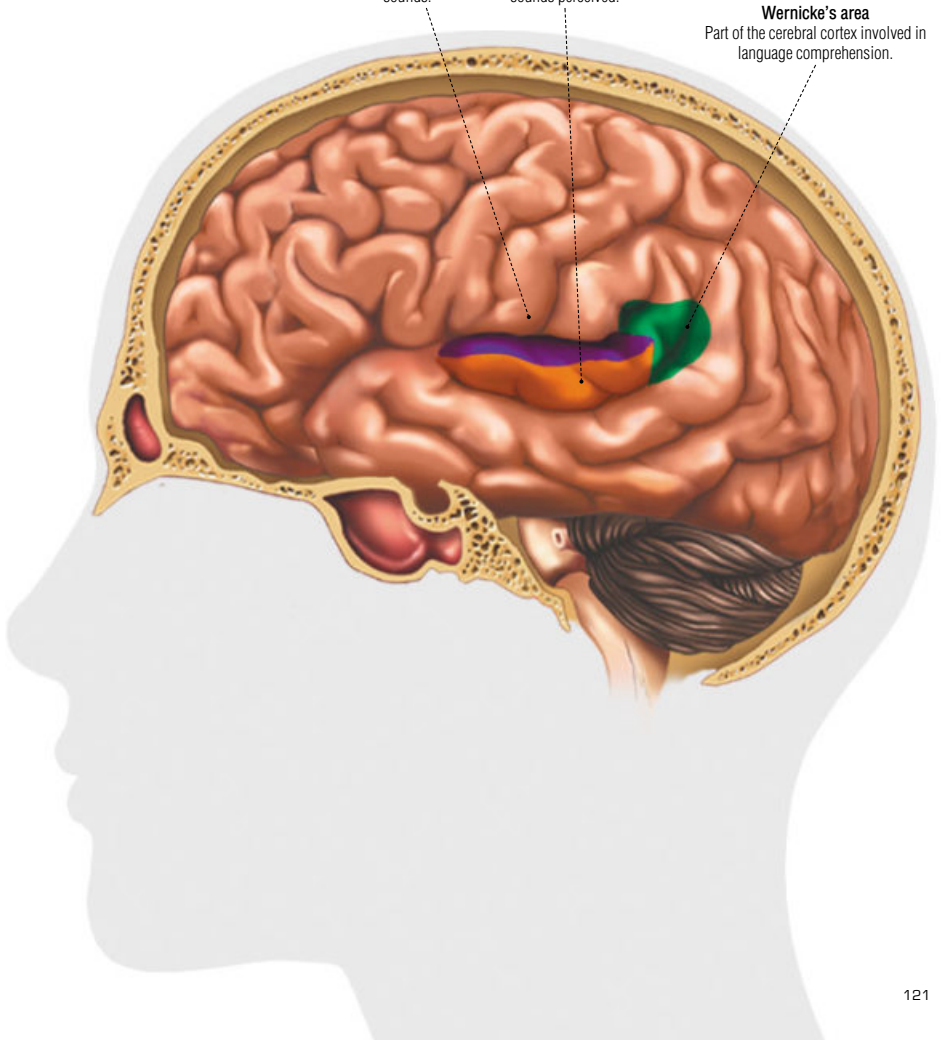
auditory cortex

Part of the cerebral cortex that receives auditory messages relayed by the cochlear nerve.

primary auditory cortex
Part of the auditory cortex that is the seat of precise representations of sounds.

secondary auditory cortex
Part of the auditory cortex that provides more diffuse representation of sounds perceived.

Wernicke's area
Part of the cerebral cortex involved in language comprehension.



smell and taste

Since the oral and nasal cavities are connected, the olfactory sense affects taste. The human being can distinguish four basic flavors and almost 10,000 odors.

mouth

Anterior cavity of the digestive tract; it has a role in ingesting food, tasting, breathing and speaking.

soft palate

Muscular membranous section of the wall separating the mouth from the nasal cavity; it has a role especially in ingesting food and speaking.

superior dental arch

Arch formed by the set of teeth of the maxilla.

upper lip

Movable muscular fold forming the upper contour of the mouth; the main roles of the lips are protecting the teeth and helping in speech.

gum

Thick section of the mucous membrane of the mouth that is rich in blood vessels and nerves; it covers the edge of the dental alveolus and adheres to the neck.

hard palate

Bony section of the wall dividing the mouth from the nasal cavity; it is extended by the soft palate.

isthmus of fauces

Orifice by which the mouth connects with the pharynx (meeting point of the respiratory and digestive tracts) enabling food to reach the esophagus.

palatoglossal arch

Muscular lateral fold of the posterior edge of the soft palate.

uvula

Fleshy movable appendage that is an extension of the posterior edge of the soft palate; it aids in ingesting food and speaking.

tonsil

Lymphoid structure (rich in white blood cells) involved in protecting the respiratory tract by fighting bacterial infections.

tongue

Flexible muscular structure of the oral cavity; it helps in tasting, masticating and ingesting food, and also facilitates speech.

inferior dental arch

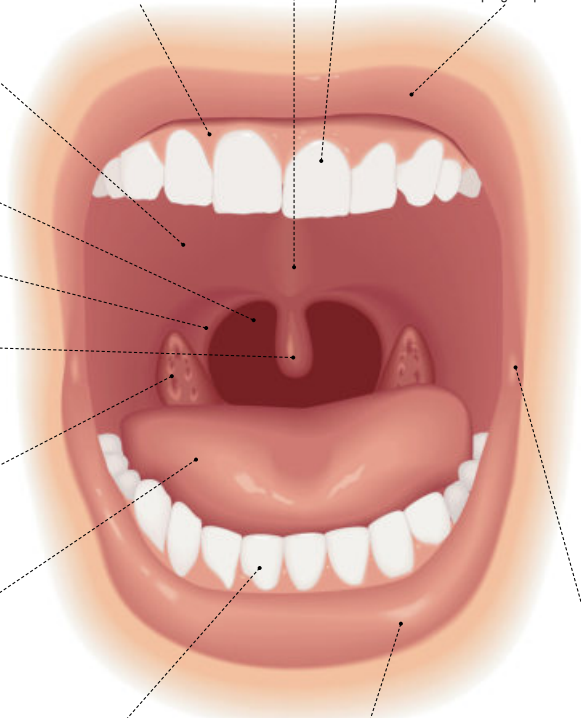
Arch formed by the set of teeth of the mandible.

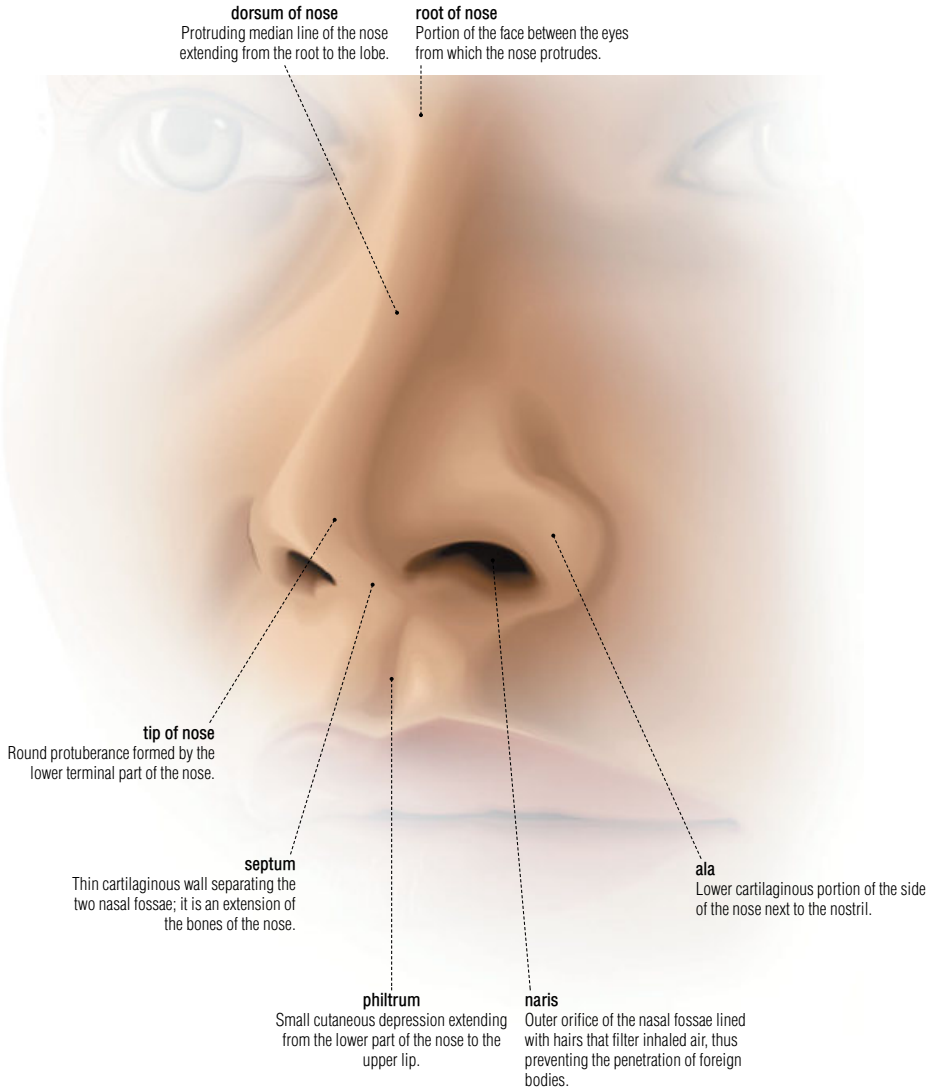
lower lip

Movable muscular fold forming the lower contour of the mouth.

commissure of lips of mouth

Each of the two juncture points of the upper and lower lips.





smell and taste

nasal fossae

Each of two cavities separated by a middle partition; they assist in olfaction, respiration and speech.

frontal sinus

Cavity hollowed out of the frontal bone of the skull; it connects with the nasal fossae and warms inhaled air.

superior nasal concha

Curved bony plate resting on the ethmoid and contributing to olfaction by bringing inhaled air into contact with the mucous membrane.

nasal bone

Small flat bone forming the skeleton of the root of the nose; the two nasal bones join along the bridge of the nose.

septal cartilage of nose

Plate of resistant elastic tissue; it extends the bones of the nose and separates the nasal fossae.

middle nasal concha

Curved bony plate resting on the ethmoid. Among its functions, the nasal chamber warms inhaled air by increasing the mucous surface.

greater alar cartilage

Thin plate of resistant elastic tissue supporting the bridge of the nose and delimiting the contour of the nostril.

inferior nasal concha

Curved bony plate attached to the lateral wall of the nasal fossae.

olfactory bulb

Nerve structure where fibers of the olfactory nerve end; it receives nervous impulses from the mucous membrane and transmits them to the olfactory tract.

olfactory nerve

Bundle of nerve fibers formed by the axons of the mucous membrane's olfactory cells, which transmit nerve impulses to the brain.

olfactory tract

Nerve structure containing the axons; it enables nerve impulses from the bulb to be carried to the brain, where they are interpreted.

olfactory mucosa

Tissue lining a portion of the nasal fossae and containing olfactory cells, which detect odors and release nerve impulses.

hard palate

Bony section of the wall dividing the mouth from the nasal cavity; it is extended by the soft palate.

tongue

Flexible muscular structure of the oral cavity; it helps in tasting, masticating and ingesting food, and also facilitates speech.

sphenoidal sinus

Cavity hollowed out of the sphenoid bone of the skull; it connects with the nasal fossae and warms inhaled air.

nasopharynx

Section of the pharynx (meeting point of the respiratory and digestive tracts) through which the mouth connects with the nasal fossae and where the Eustachian tube opens.

Eustachian tube

Tube connecting the middle ear to the nasopharynx; it allows outside air to pass through, thus equalizing air pressure on both sides of the ear drum.

soft palate

Muscular membranous section of the wall separating the mouth from the nasal cavity; it has a role especially in ingesting food and speaking.

uvula

Fleshy movable appendage that is an extension of the posterior edge of the soft palate; it aids in ingesting food and speaking.

olfactory bulb

Nerve structure where fibers of the olfactory nerve end; it receives nervous impulses from the mucous membrane and transmits them to the olfactory tract.

axon

Extension of olfactory cell, communicating nerve impulses to the olfactory bulb.

Bowman's gland

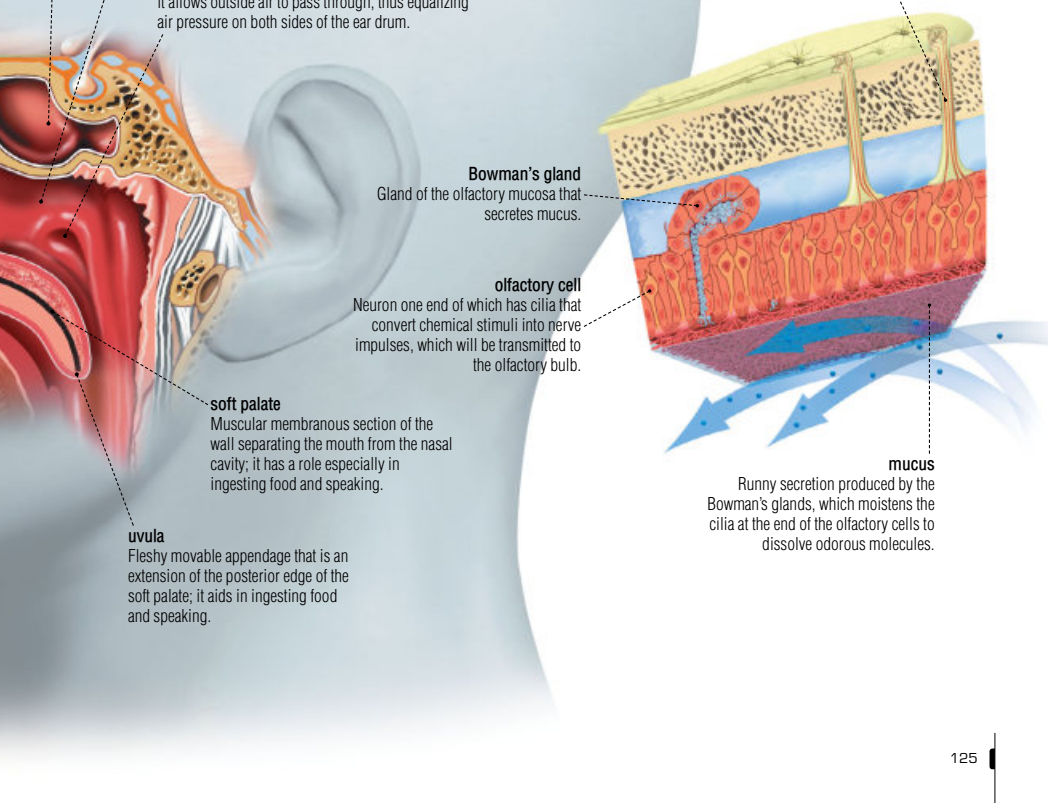
Gland of the olfactory mucosa that secretes mucus.

olfactory cell

Neuron one end of which has cilia that convert chemical stimuli into nerve impulses, which will be transmitted to the olfactory bulb.

mucus

Runny secretion produced by the Bowman's glands, which moistens the cilia at the end of the olfactory cells to dissolve odoriferous molecules.



smell and taste

dorsum of tongue

epiglottitis
Movable cartilaginous plate ensuring that the larynx closes during ingestion of food so that food cannot enter the respiratory tract.

lingual tonsil
Lymphoid structure (rich in white blood cells) located at the base of the tongue; it assists in immune defense.

palatine tonsil
Lymphoid structure (rich in white blood cells) located on each side of the base of the tongue; it protects the respiratory tract by fighting bacteria.

foramen cecum
Small depression located at the base of the tongue, at the top of the sulcus terminalis.

root
Part that fixes the tongue to the mandible and the hyoid bone of the skull; it is also joined on each side to the walls of the pharynx.

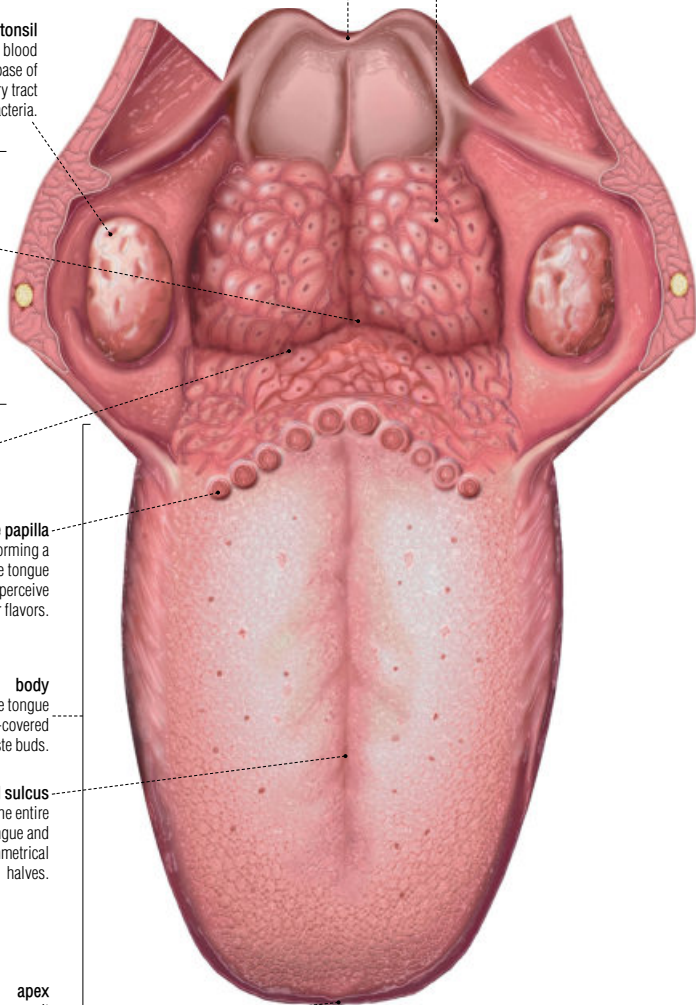
sulcus terminalis
Inverted V-shaped depression separating the base of the body of the tongue, topped by the foramen cecum.

circumvallate papilla
Each of the large taste buds (about 10) forming a lingual V at the back of the body of the tongue ensuring the taste function; they mostly perceive bitter flavors.

body
Free mobile portion of the tongue composed mostly of mucous-covered muscles and bearing the taste buds.

median lingual sulcus
Depression extending over the entire length of the body of the tongue and separating it into two symmetrical halves.

apex
Mobile terminal end of the tongue; it mostly perceives sweet flavors.



taste receptors

The mucous membrane of the tongue is composed of small protuberances, lingual taste buds, distinguished by their particular sensitivity to one of the basic flavors: sweet, salty, sour, bitter.

fungiform papilla

Mushroom-shaped taste bud occurring in large numbers at the apex and on the sides of the tongue and having a taste function; it reacts mainly to sweet and salty flavors.

foliate papilla

Taste bud located mainly on the posterior lateral edges of the tongue and having a taste function; it is most sensitive to sour flavors.

filiform papilla

Cone-shaped taste bud covering the rear of the tongue; its function is solely tactile. These taste buds give the tongue its velvety appearance.

circumvallate papilla

Each of the large taste buds (about 10) forming a lingual V at the back of the body of the tongue ensuring the taste function; they mostly perceive bitter flavors.

taste bud

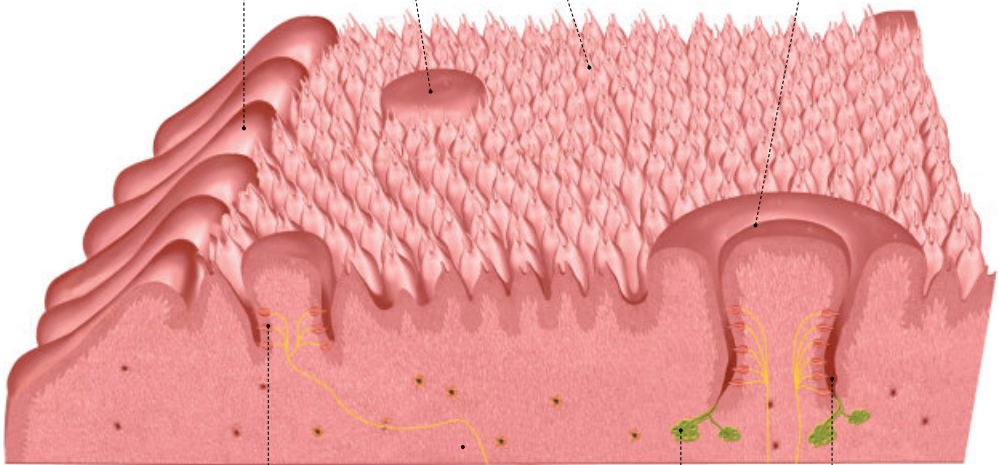
Organ of taste formed of sensory cells that, in contact with saliva, detect flavors and transmit them to the brain in the form of nerve impulses.

salivary gland

Each of the three pairs of saliva-secreting organs responsible for moistening food so that the taste buds can perceive its taste.

furrow

Saliva-filled depression delimiting the lingual taste buds.



sight

The human being possesses a highly developed visual sensitivity, far superior to that of the other senses.

eye

Organ of vision serving to perceive shapes, distances, colors and motion.

upper eyelid

Thin movable muscular membrane descending from the upper edge of the eye. The eyelids protect the eye, emit tears and discharge waste. Batting of the eyelashes is very frequent.

lachrymal caruncle

Small reddish mass located at the inner corner of the eye formed by the fold of the conjunctiva.

lachrymal canal

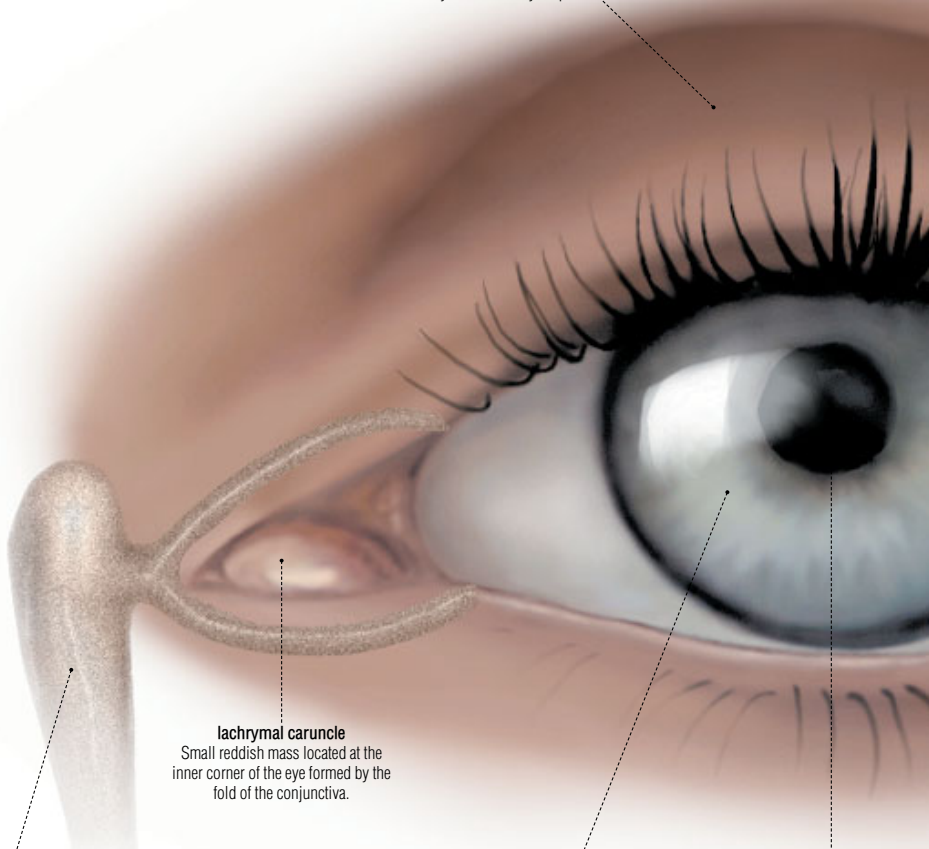
Duct opening out into the nasal fossae through which tears produced by the tear glands are discharged.

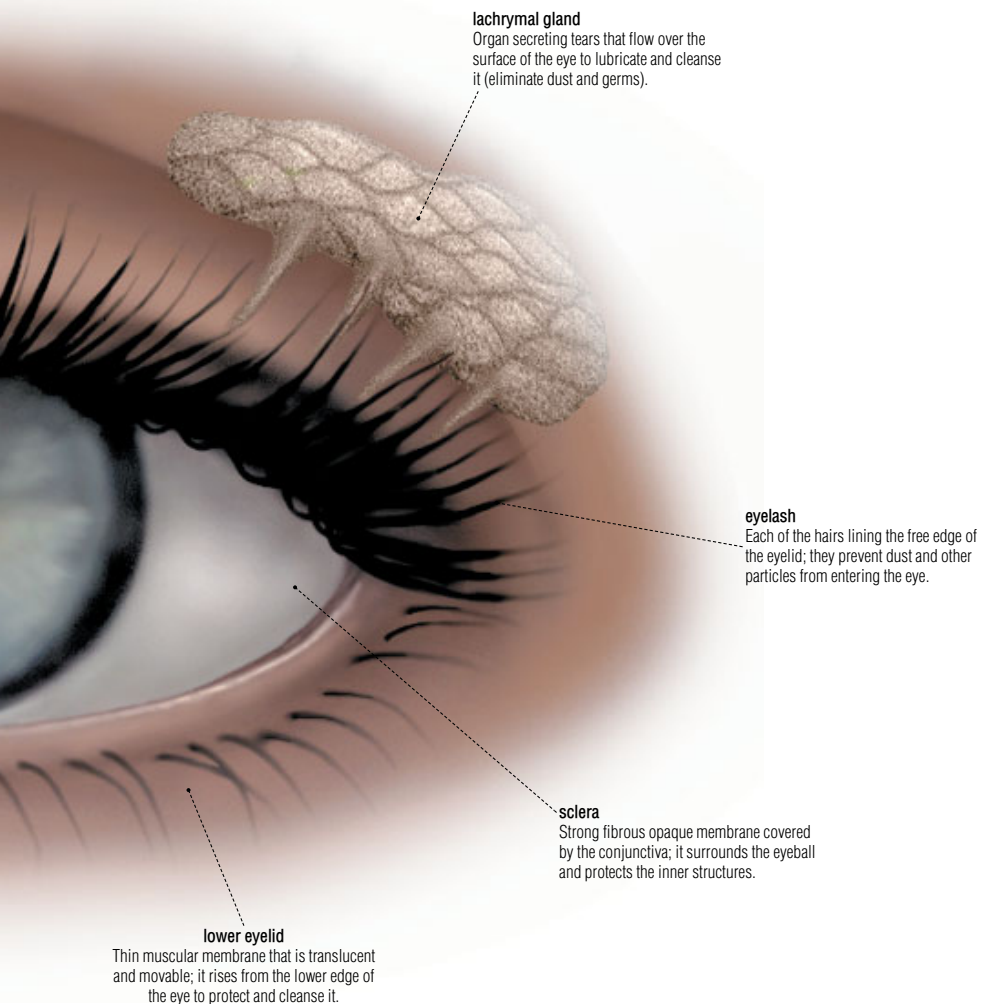
iris

Colored central portion of the eyeball composed of muscles whose dilation or contraction controls the opening of the pupil.

pupil

Central orifice of the eye whose opening varies to regulate the amount of light entering the eye; light causes the pupil to contract.





sight

eyeball

Enclosed in a bony cavity (orbit) and moved by six muscles, this complex organ collects light signals and transmits them to the brain to form images.

posterior chamber
Cavity of the eye between the iris and the lens containing the aqueous humor.

superior rectus muscle
Muscle allowing the eyeball to move upward.

anterior chamber
Cavity of the eye between the cornea and the iris containing the aqueous humor.

lens
Transparent elastic area of the eye; focuses images on the retina to obtain clear vision.

cornea
Transparent fibrous membrane extending the sclera and whose curved shape makes light rays converge toward the inside of the eye.

pupil
Central orifice of the eye whose opening varies to regulate the amount of light entering the eye; light causes the pupil to contract.

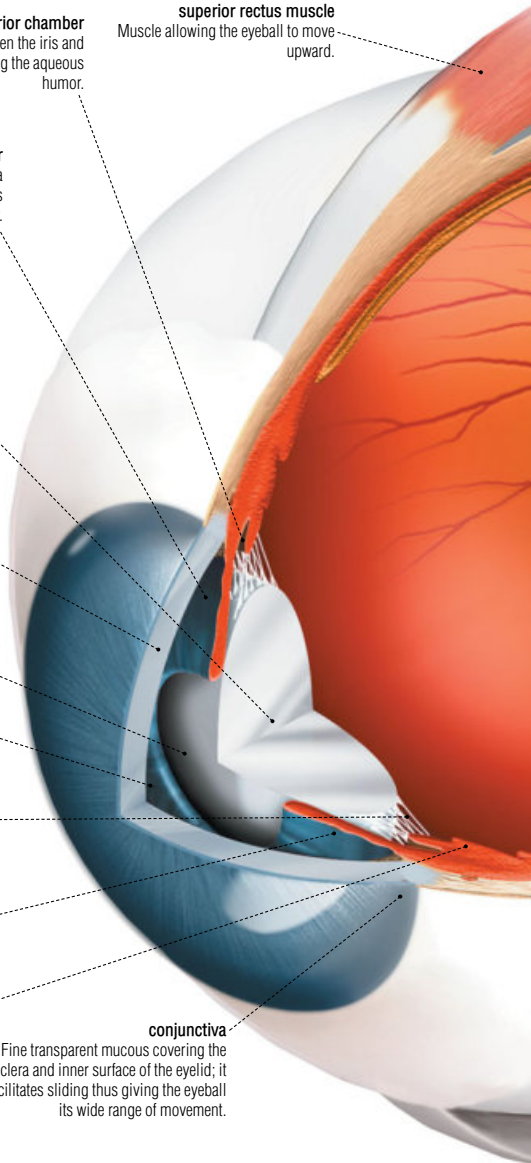
aqueous humor
Transparent liquid contained in the anterior and posterior chambers; it nourishes the iris and maintains the pressure and shape of the eye.

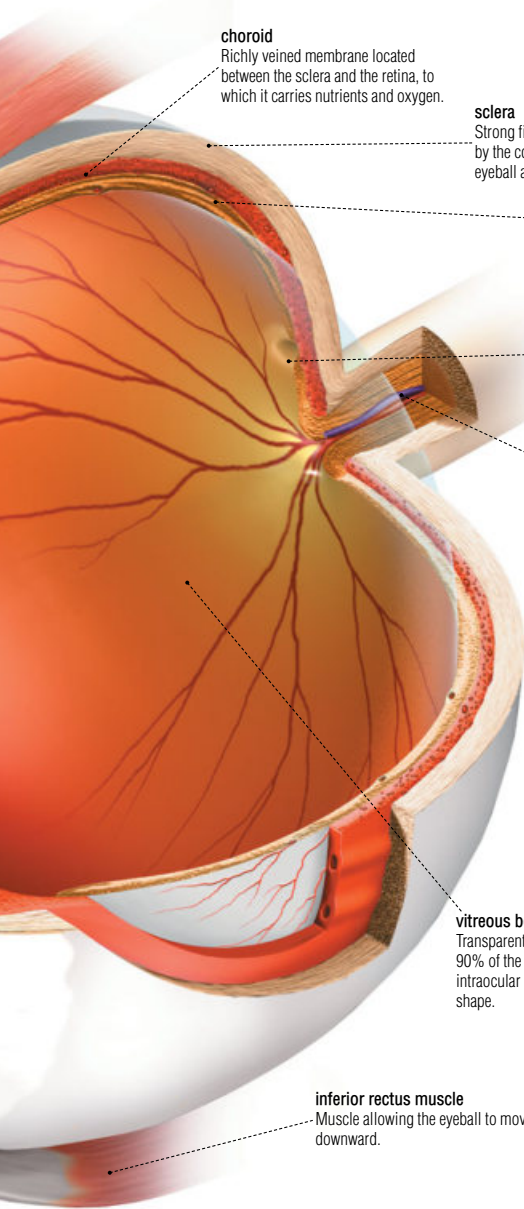
suspensory ligament
Fibrous tissue connecting the ciliary body to the lens, holding it in place inside the eyeball.

iris
Colored central portion of the eyeball composed of muscles whose dilation or contraction controls the opening of the pupil.

ciliary body
Muscle tissue secreting the aqueous humor; its muscles enable the lens to change shape to adapt vision for near or far.

conjunctiva
Fine transparent mucous covering the sclera and inner surface of the eyelid; it facilitates sliding thus giving the eyeball its wide range of movement.





choroid

Richly veined membrane located between the sclera and the retina, to which it carries nutrients and oxygen.

sclera

Strong fibrous opaque membrane covered by the conjunctiva; it surrounds the eyeball and protects the inner structures.

retina

Inner membrane at the back of the eye covered in light-sensitive nerve cells (photoreceptors); these transform light into an electrical impulse that is carried to the optic nerve.

macula

Area of the retina where the cones are concentrated; it plays an essential role in day vision and the perception of colors.

optic nerve

Nerve formed by the juncture of the nerve fibers of the retina; it carries visual information to the brain, where it is interpreted.

vitreous body

Transparent gelatinous mass (almost 90% of the eye); it maintains constant intraocular pressure so the eye keeps its shape.

inferior rectus muscle

Muscle allowing the eyeball to move downward.

photoreceptors

Nerve cells of the retina that convert light into nerve impulses; these are transmitted to the brain, which decodes them and forms an image.

cone

Photoreceptor active in full light and responsible for perception of specific colors. There are three types: red-yellow, green and blue-violet.



rod

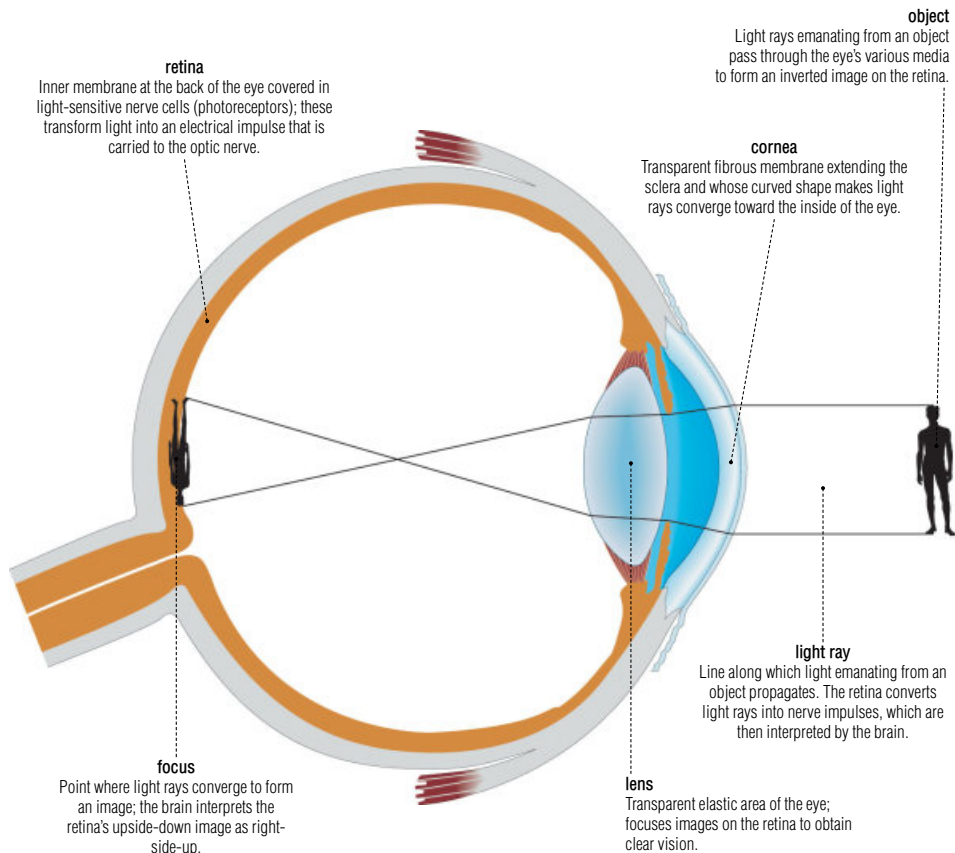
Photoreceptor active in dim light and responsible for night vision (in black and white).



sight

normal vision

The image of an object is formed on the retina after passing through the lens, which, depending on the distance of the object, expands or contracts to give a sharp image.



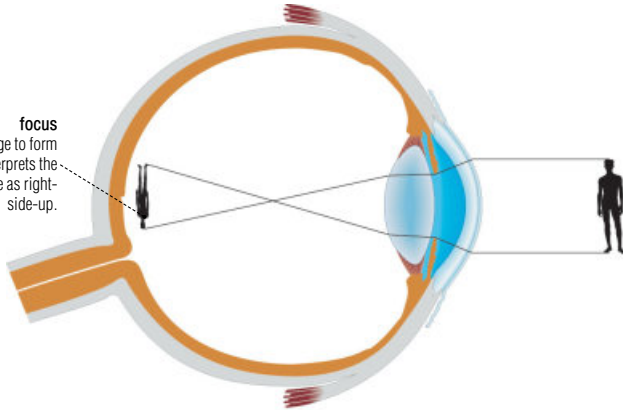
vision defects

Images do not form on the retina, thus resulting in blurry vision; such defects are corrected by eyeglasses, contact lenses or even surgery.

myopia

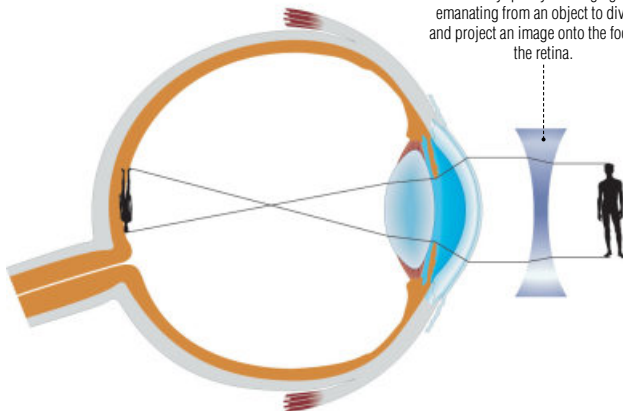
The image of a distant object is formed in front of the retina due to a defect in the light rays' convergence. This makes distant objects hard to see.

focus
Point where light rays converge to form an image; the brain interprets the retina's upside-down image as right-side-up.



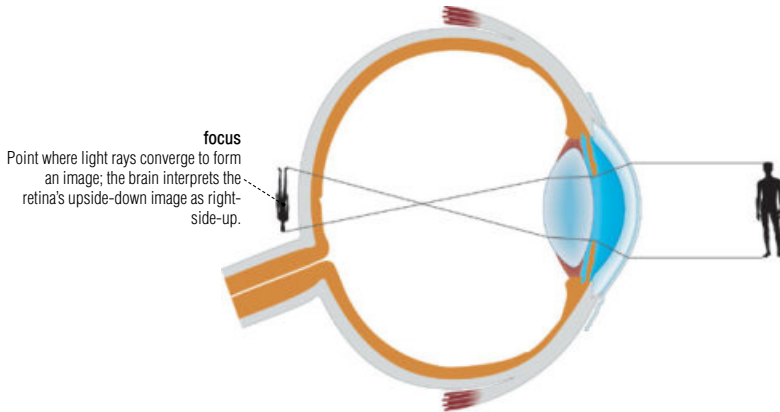
concave lens

Corrects myopia by causing light rays emanating from an object to diverge and project an image onto the focus of the retina.

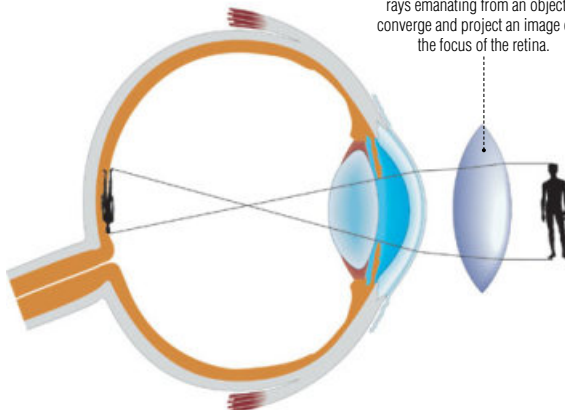


hyperopia

The image of an object is formed behind the retina due to a defect in the light rays' convergence as they pass through the lens. This makes near objects hard to see.

**convex lens**

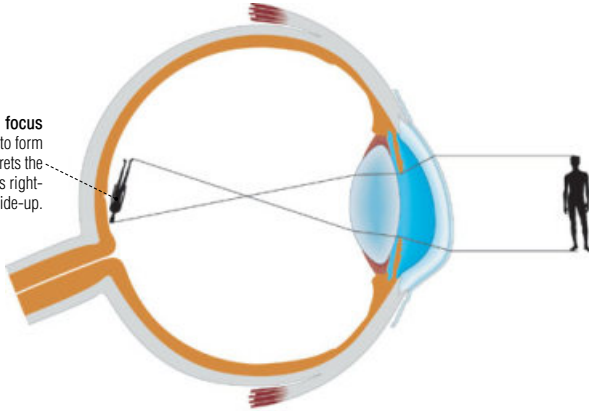
Corrects hyperopia by causing light rays emanating from an object to converge and project an image onto the focus of the retina.



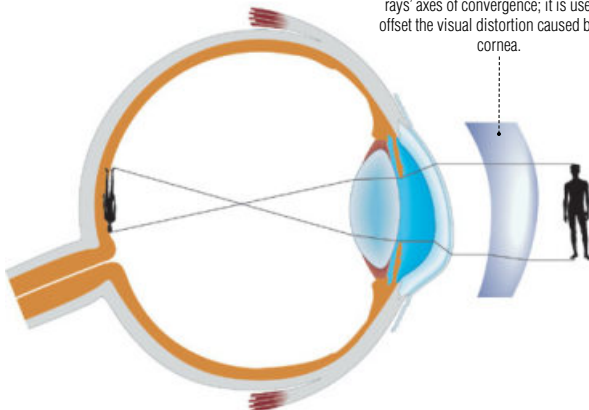
astigmatism

Usually caused by a curvature of the cornea, it is manifested by blurred vision when viewing both near and far objects, depending on various axes.

focus
Point where light rays converge to form an image; the brain interprets the retina's upside-down image as right-side-up.

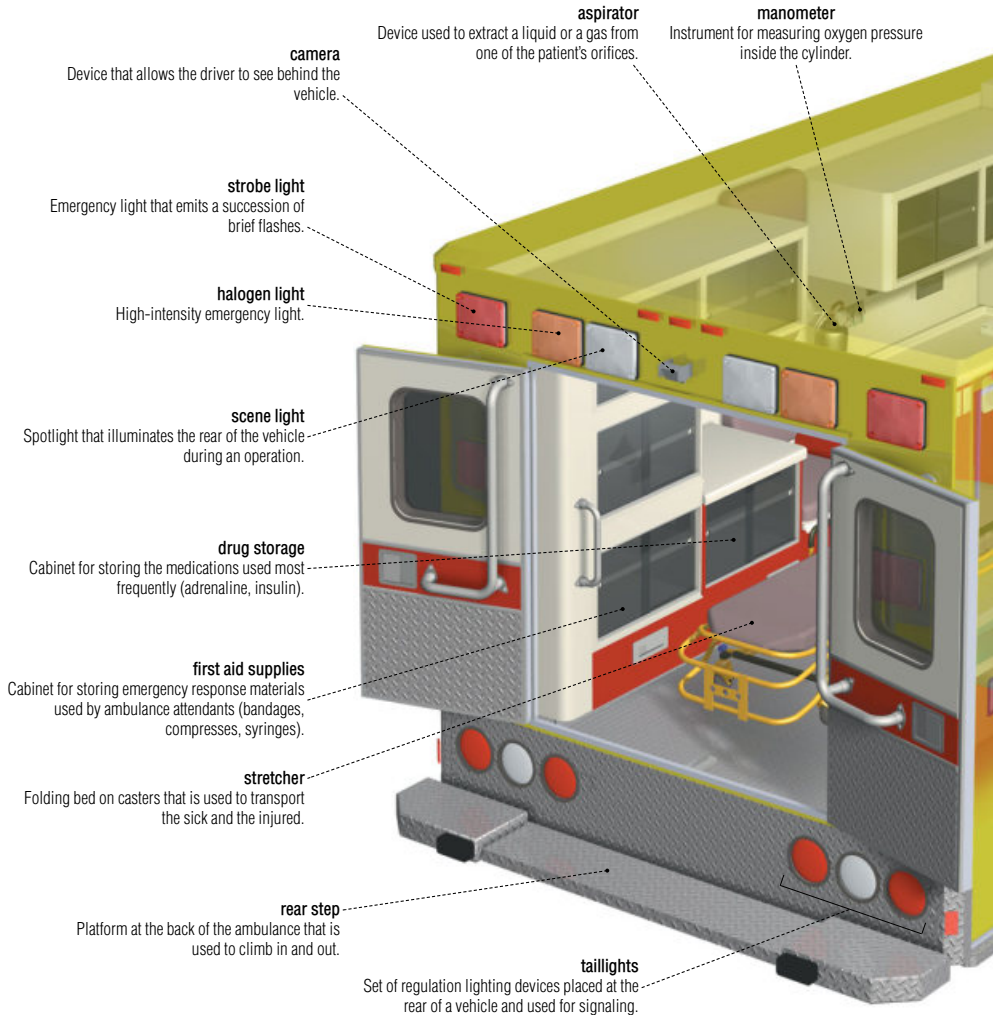
**toric lens**

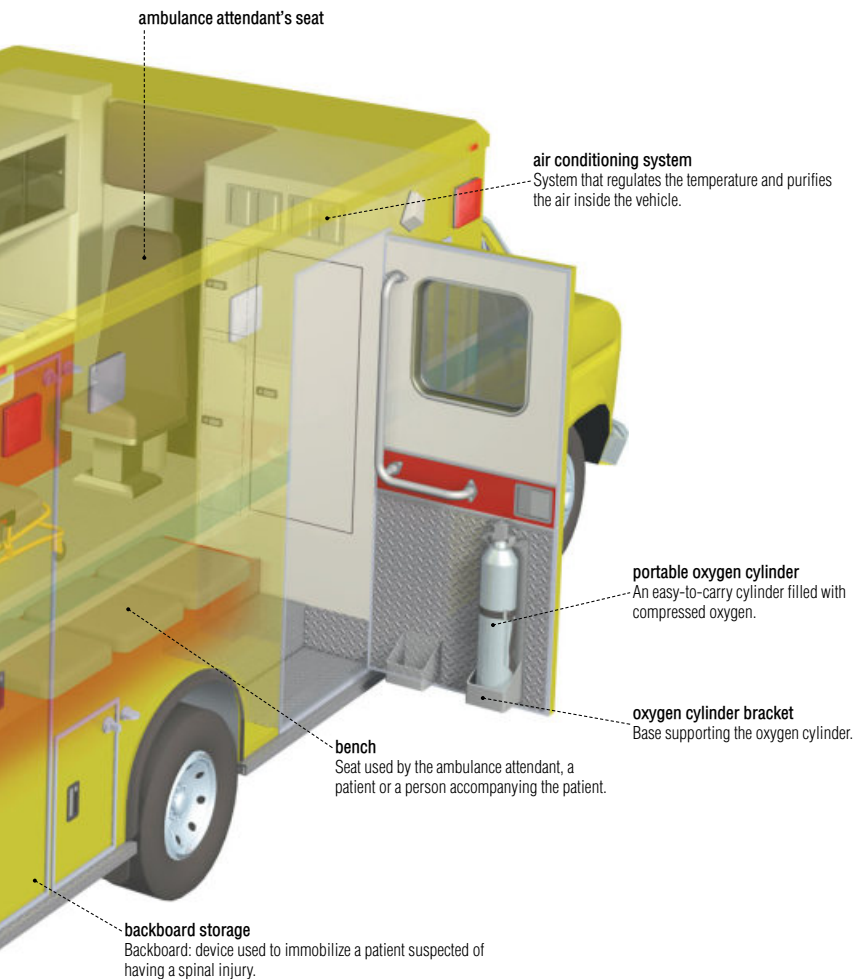
Has various powers depending on the rays' axes of convergence; it is used to offset the visual distortion caused by the cornea.



ambulance

Vehicle designed to transport the sick and injured to hospital and to administer first aid.





first aid equipment

The instruments and equipment used to transport the sick and the injured and to administer first aid.



oxygen mask

Device placed over the nose and mouth to help breathing by means of oxygen insufflation.



oropharyngeal airway

Hollow tube inserted into the oral portion of the pharynx (oropharynx) to prevent the tongue from being swallowed and to allow air to pass.

resuscitator

Portable device used to ventilate the lungs when breathing is inadequate.



mask

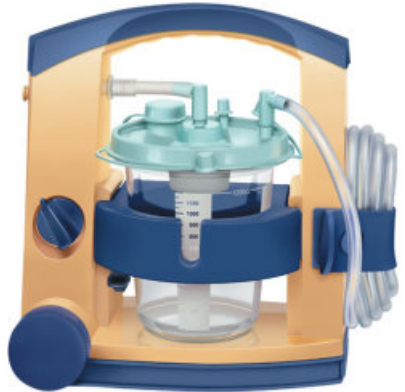
Part of the resuscitator applied to a person's nose and mouth.

cervical collar

Orthosis placed around the neck to partially immobilize the cervical spine.

**aspirator**

Device used to extract a liquid or a gas from one of the patient's orifices.

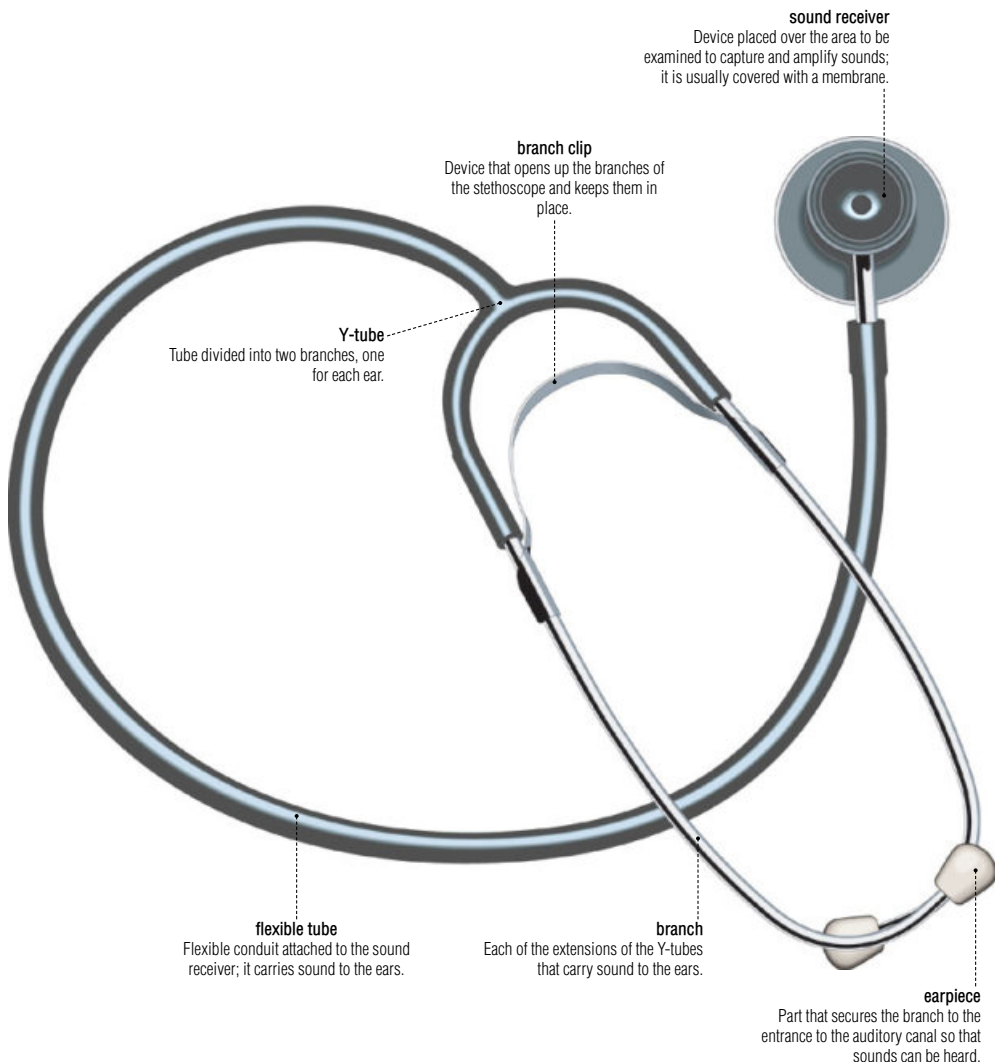
**defibrillator**

Device that releases a brief but powerful electric charge to restore normal heart rhythm after cardiac arrest.

first aid equipment

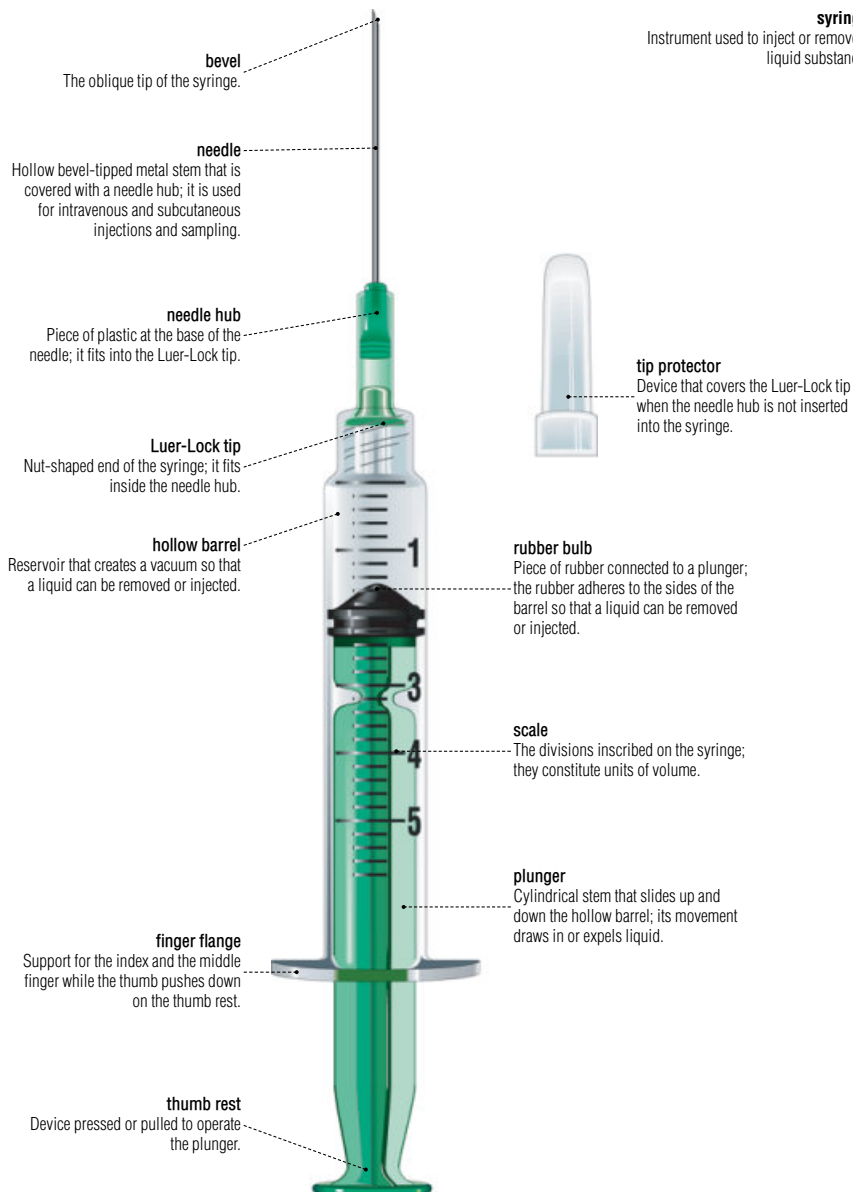
stethoscope

Instrument that captures and amplifies cardiac and breathing sounds.



syringe

Instrument used to inject or remove a liquid substance.



**syringe for irrigation**

High-volume syringe used to clean an orifice by inserting a medicated solution.

**latex glove**

Thin rubber glove worn by medical personnel to prevent infection or contagion.

**stretcher**

Cloth-covered wooden or metal frame used to transport the sick and the injured.

cot

Folding bed on casters that is used to transport the sick and the injured.

frame

Metal structure that supports the mattress above its feet.

reclining back

The part of the frame that is raised so that the patient can lean back.

mattress

Large padded cushion on which the patient lies.

pulling ring

Device that is pulled to move the cot.

telescopic leg

Extensible rods that stabilize the cot and regulate its height.

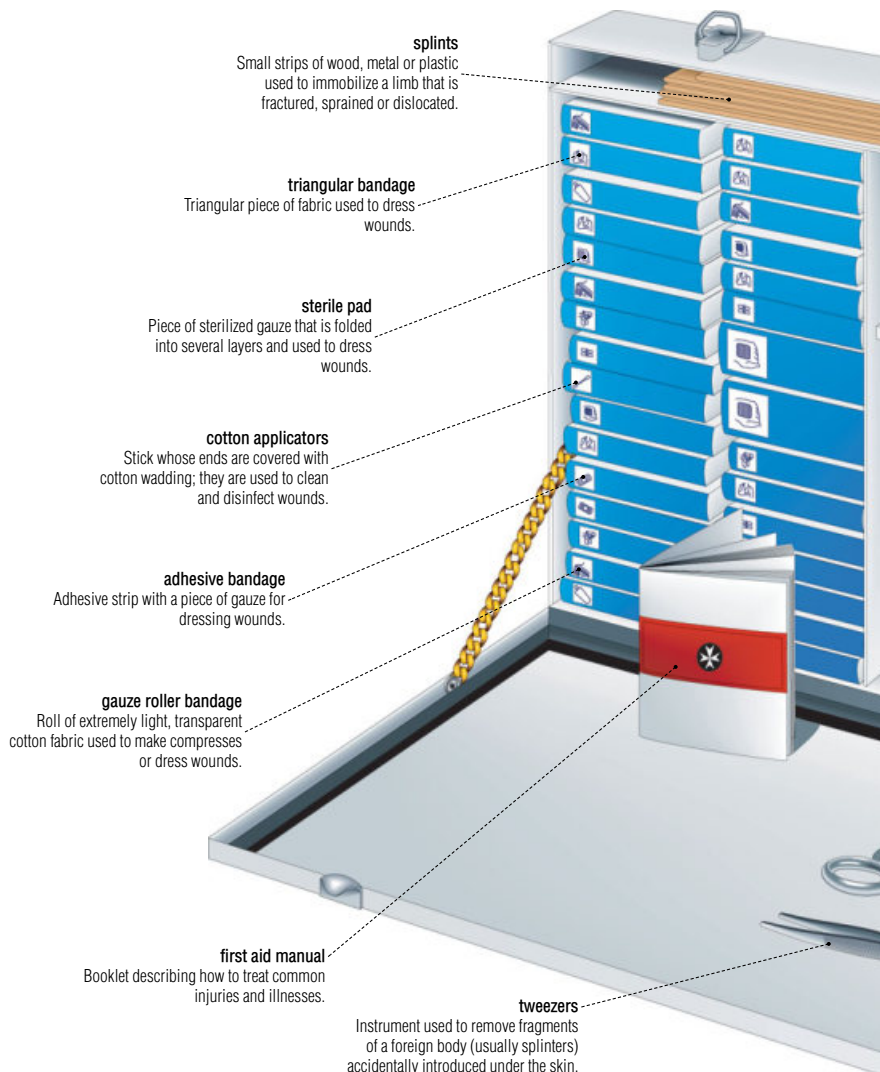
hook

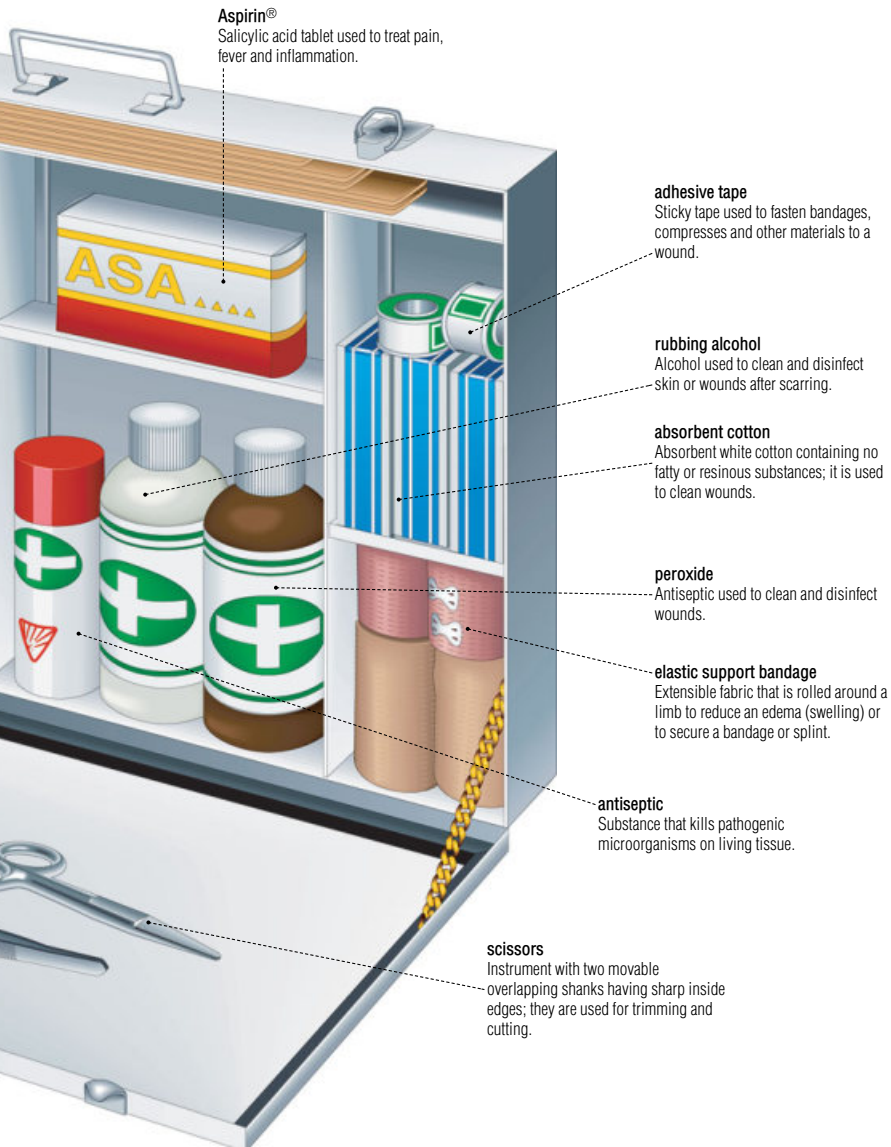
Part used to hang equipment.



first aid kit

Box that contains the materials required to administer first aid, including bandages, medication and instruments.





clinical thermometers

Instruments that measure body temperature; they can be auricular, oral, rectal, etc.

digital thermometer

Thermometer that indicates the temperature in digits on a liquid crystal display screen.



mercury thermometer

Thermometer graduated from 94°F to 108°F and containing mercury that expands as a function of body temperature; an arrow indicates normal body temperature (98.6°F).

expansion chamber
Space that is taken up by the gas in the capillary bore; it is pushed back as the mercury rises into it.

mercury bulb

Glass reservoir containing mercury (a liquid metal) that expands and rises in the capillary tube as the temperature rises.

stem

Glass tube containing the capillary bore.

scale

Divisions of equal length (degrees) marked on the thermometer that constitute the units of measurement.

constriction

Narrowing that prevents the mercury from spontaneously dropping into the bulb as the temperature lowers (the thermometer must be shaken to make it go down).

column of mercury

Quantity of mercury that is contained in the capillary bore; its height varies with the temperature.

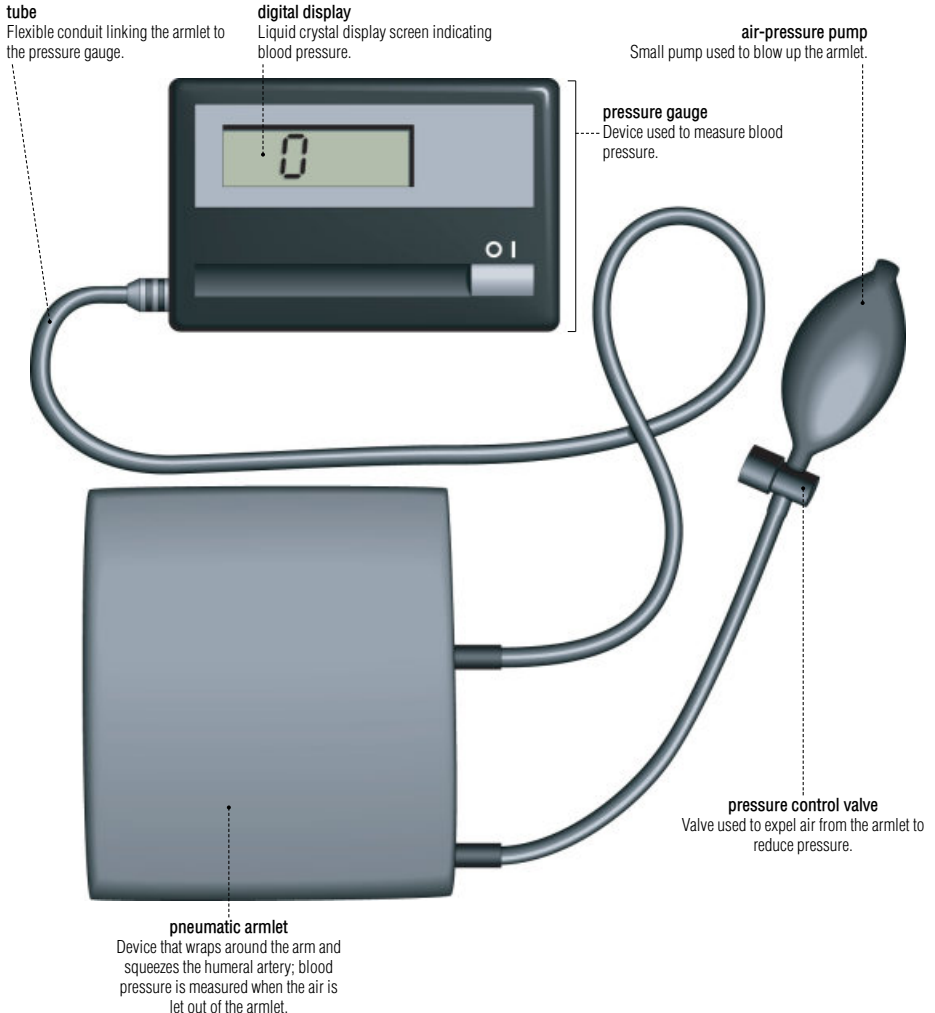
capillary tube

End of the glass tube in which the mercury rises or falls with the temperature; the mercury thermometer tube is filled with gas.



blood pressure monitor

Device composed of an armlet and a pressure gauge; it is used to measure diastolic (heart dilatation) and systolic (heart contraction) pressure.



hospital

Establishment where the sick are given medical and surgical care and where babies are born.

emergency

Department that receives the sick and the injured who require immediate care.

observation room

Room in which a patient is monitored for a specific period to confirm or rule out a diagnosis.

pharmacy

Room used to store medication available to medical personnel.

nurses' station (major emergency)

Work area for nurses who care for seriously ill patients.

isolation room

Room in which contagious patients or patients vulnerable to infection are treated to avoid the transmission of disease.

psychiatric observation room

Room in which a patient is observed for a specific period to determine if a psychiatric referral is necessary.

resuscitation room

Room designed to treat sick or wounded patients whose vital functions have failed.

mobile X-ray unit

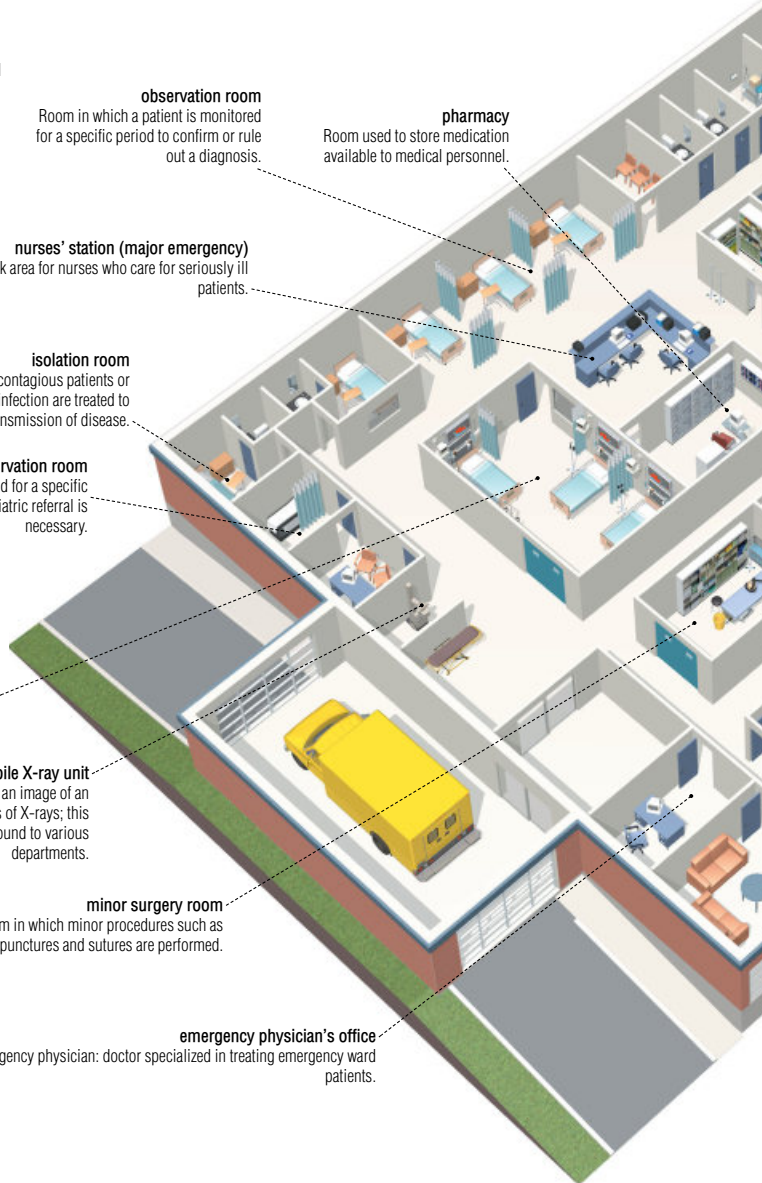
Instrument that captures an image of an internal body part by means of X-rays; this mobile unit moves around to various departments.

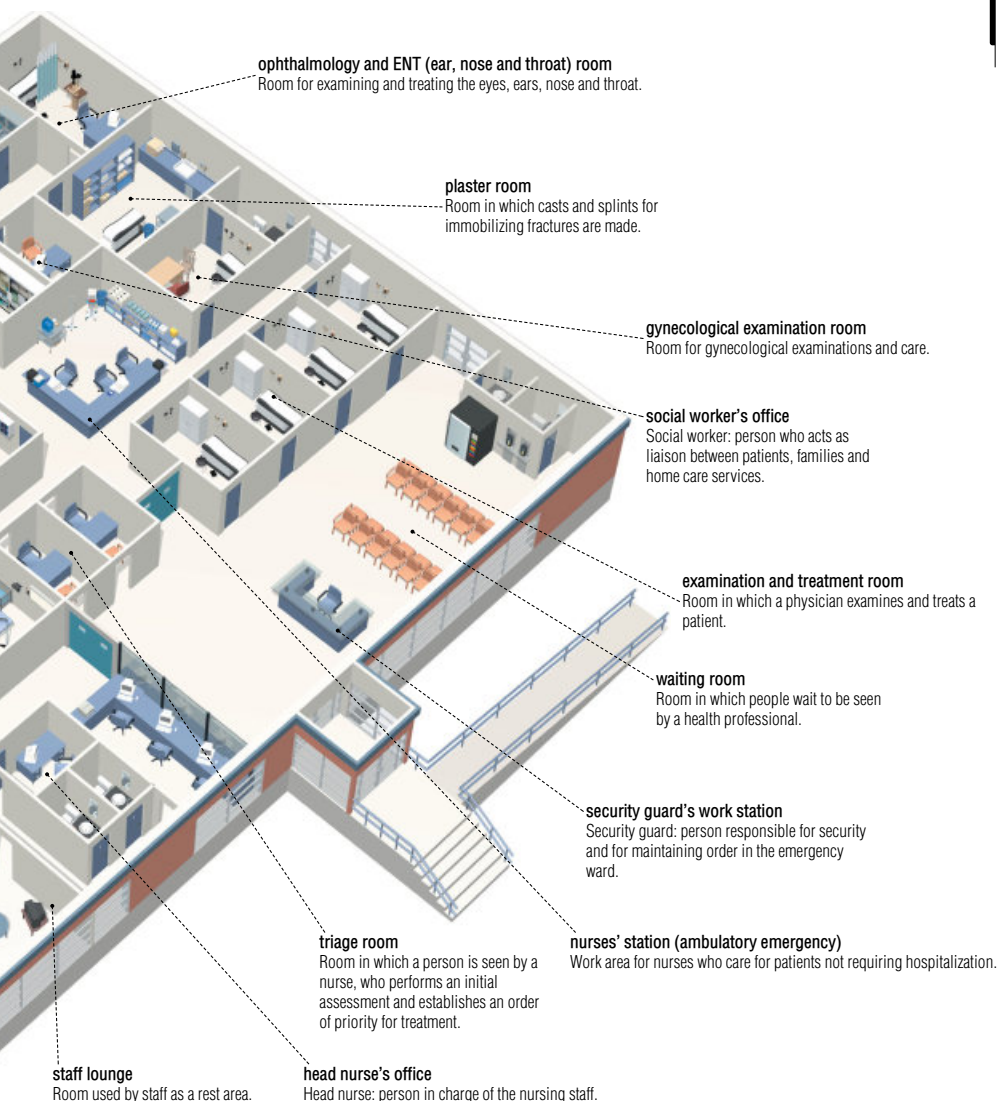
minor surgery room

Room in which minor procedures such as punctures and sutures are performed.

emergency physician's office

Emergency physician: doctor specialized in treating emergency ward patients.





hospital

patient room

Room for hospitalized patients; it can be private (one bed), semiprivate (two beds) or common (more than two beds).

resident

Graduate of medicine who does an apprenticeship of varying duration in a hospital as the final stage of medical training.

bedside lamp

Adjustable light fixture secured to the wall at the head of the bed.

oxygen outlet

Device that supplies oxygen to a patient's room.

shower

Sanitary fixture for washing the body under a spray of water.

toilet

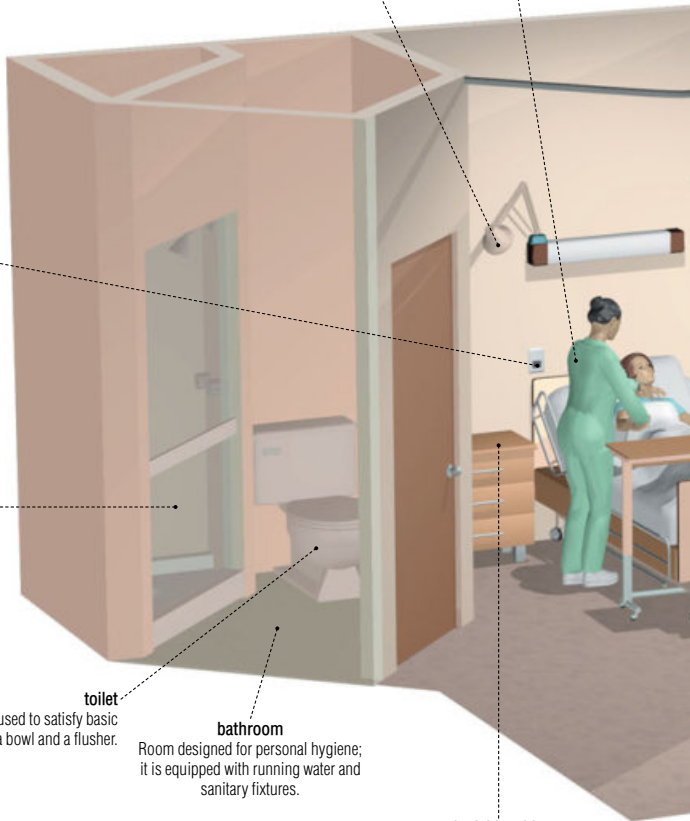
Plumbing fixture used to satisfy basic functions; it has a bowl and a flusher.

bathroom

Room designed for personal hygiene; it is equipped with running water and sanitary fixtures.

bedside table

Small table placed at the head of a bed; it might contain one or more drawers.



intravenous stand

Long metal rod with a hook that is supported by a base with casters; it is used to suspend a bag containing a solution that is slowly and continuously injected into the patient.

physician

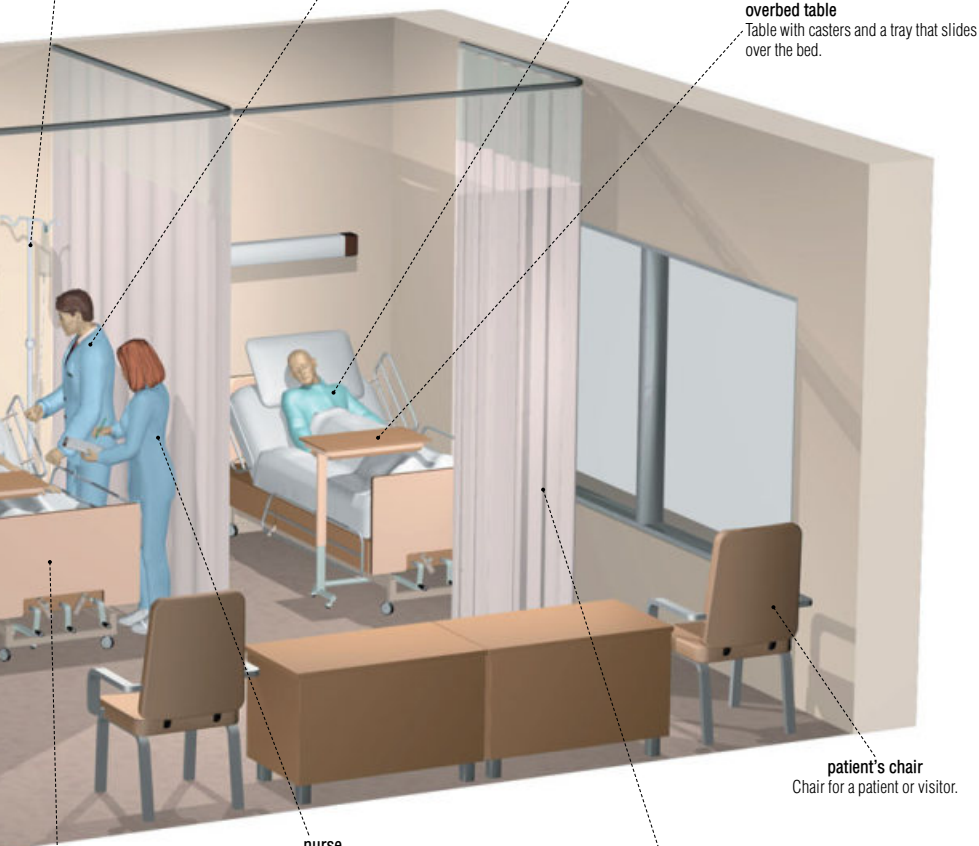
Holder of a degree in medicine, the physician establishes the diagnosis and prescribes treatment and medication.

patient

Person who undergoes treatment, a medical examination or a surgical procedure.

overbed table

Table with casters and a tray that slides over the bed.

**hospital bed**

Bed with an articulated base, casters and bars.

nurse

Holder of a degree in nursing, the nurse treats patients under the direction of the physician.

privacy curtain

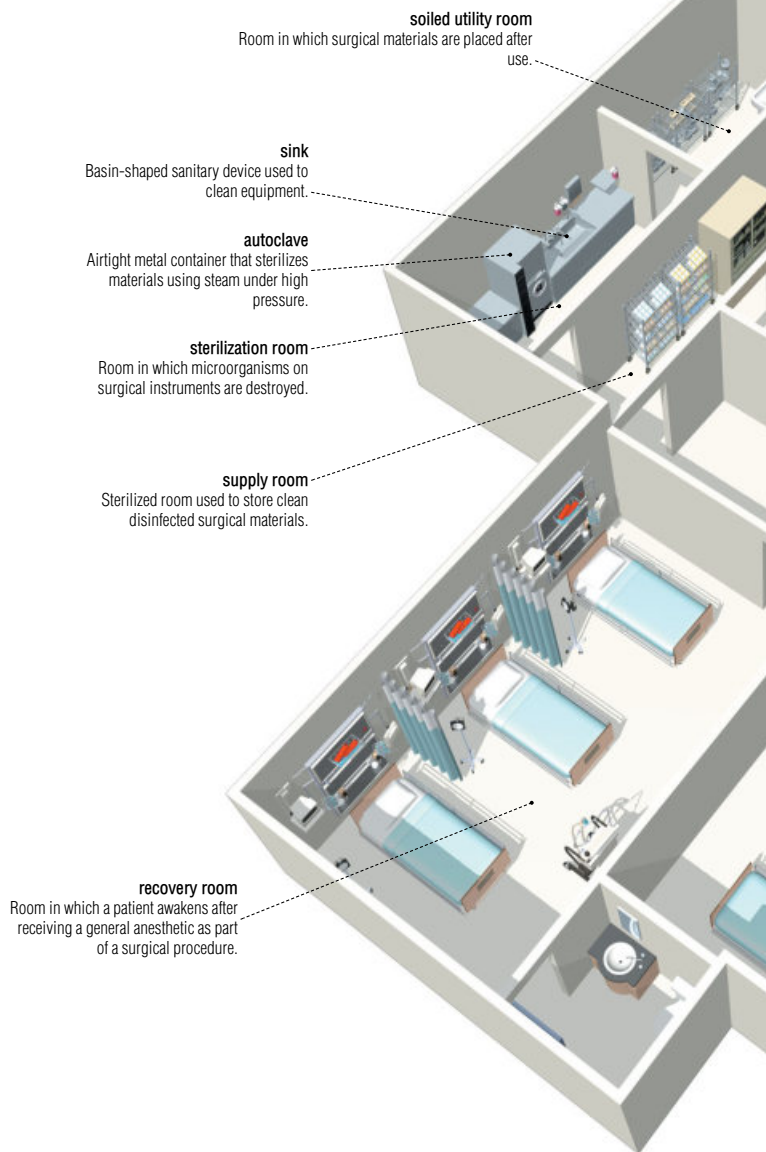
Curtain used to separate one patient's area from another's or to provide privacy.

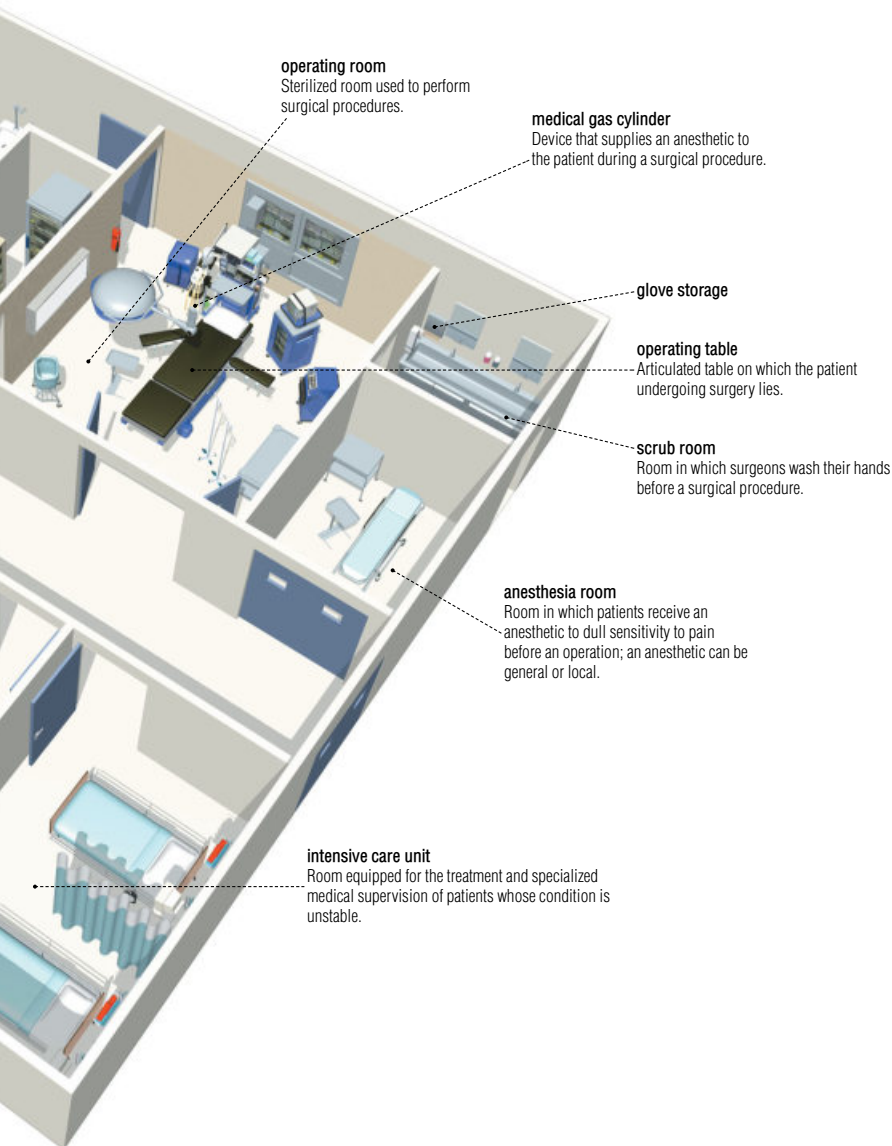
patient's chair

Chair for a patient or visitor.

operating suite

The rooms and equipment used for surgical procedures.

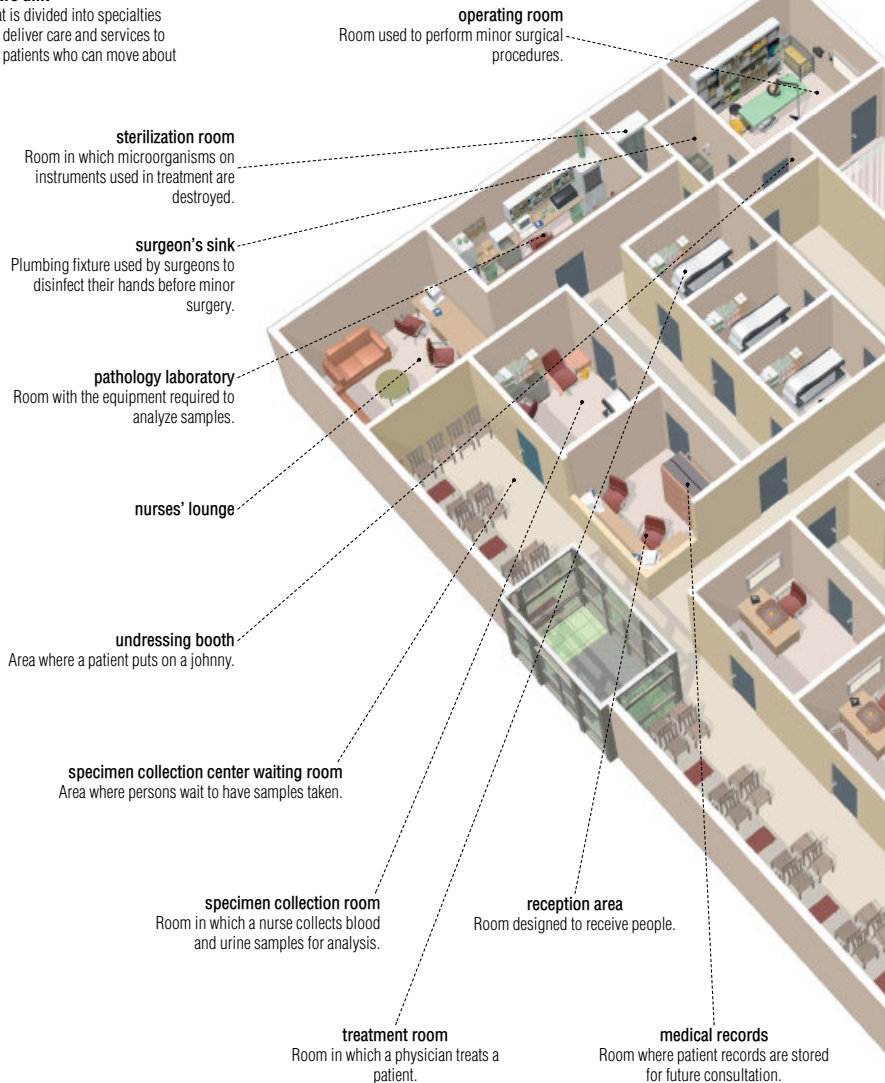


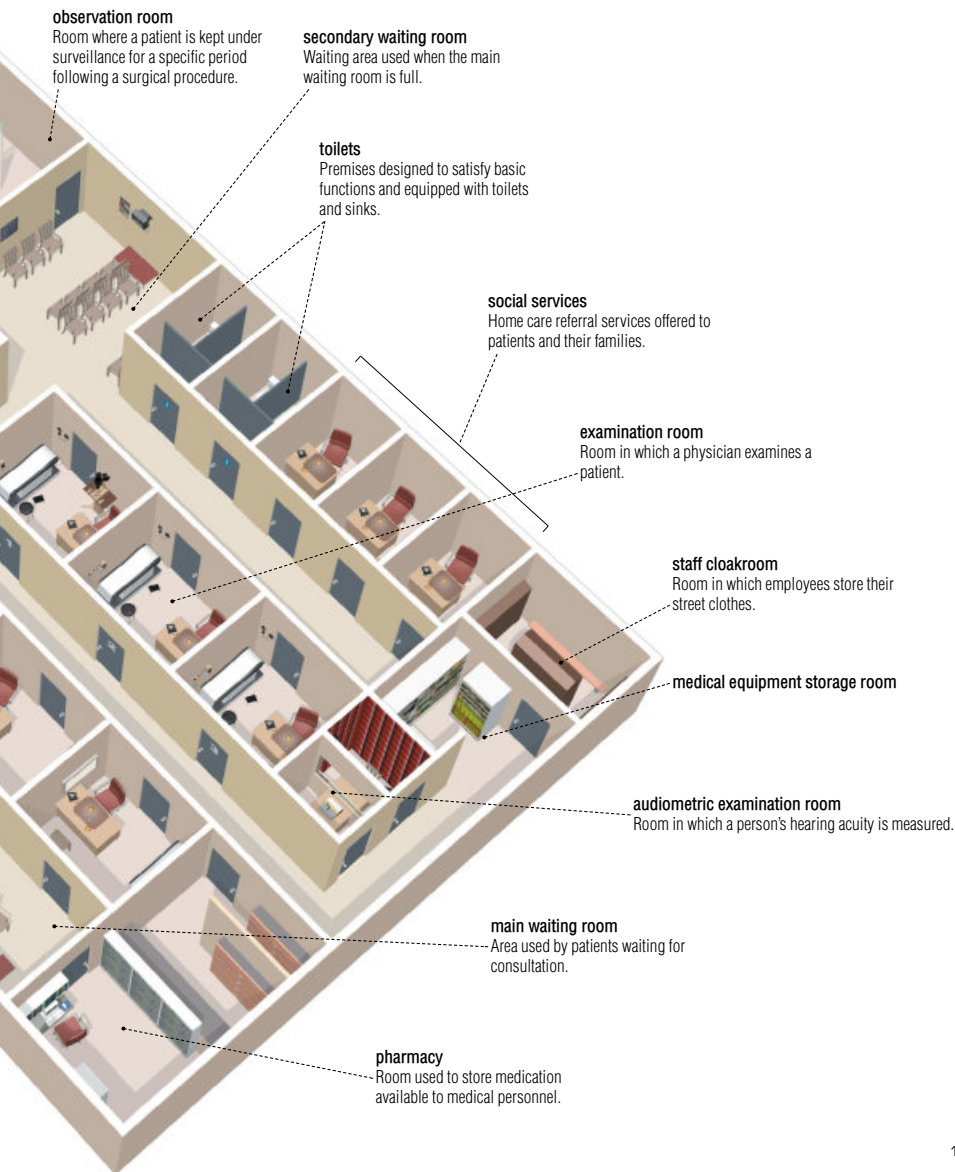


hospital

ambulatory care unit

Hospital unit that is divided into specialties and designed to deliver care and services to nonhospitalized patients who can move about on their own.





walking aids

Weight-bearing devices used to help a person move about.

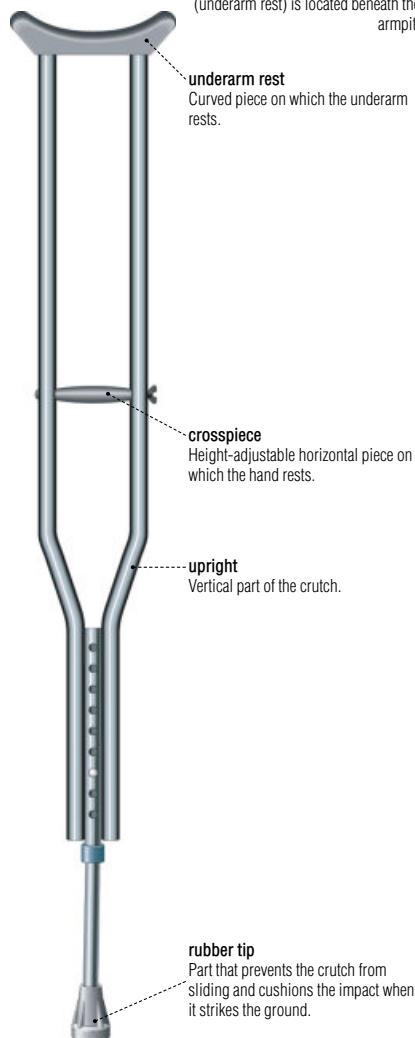
forearm crutch

Crutch whose weight-bearing point (forearm support) is located on the inside of the forearm.



underarm crutch

Crutch whose weight-bearing point (underarm rest) is located beneath the armpit.



**walking stick**

Weight-bearing stick with a curved handle.

**English cane**

Weight-bearing device with a straight handle.

**ortho-cane**

Rod with a handle designed to facilitate the use of the cane.

**quad cane**

Cane with a four-legged base.

walker

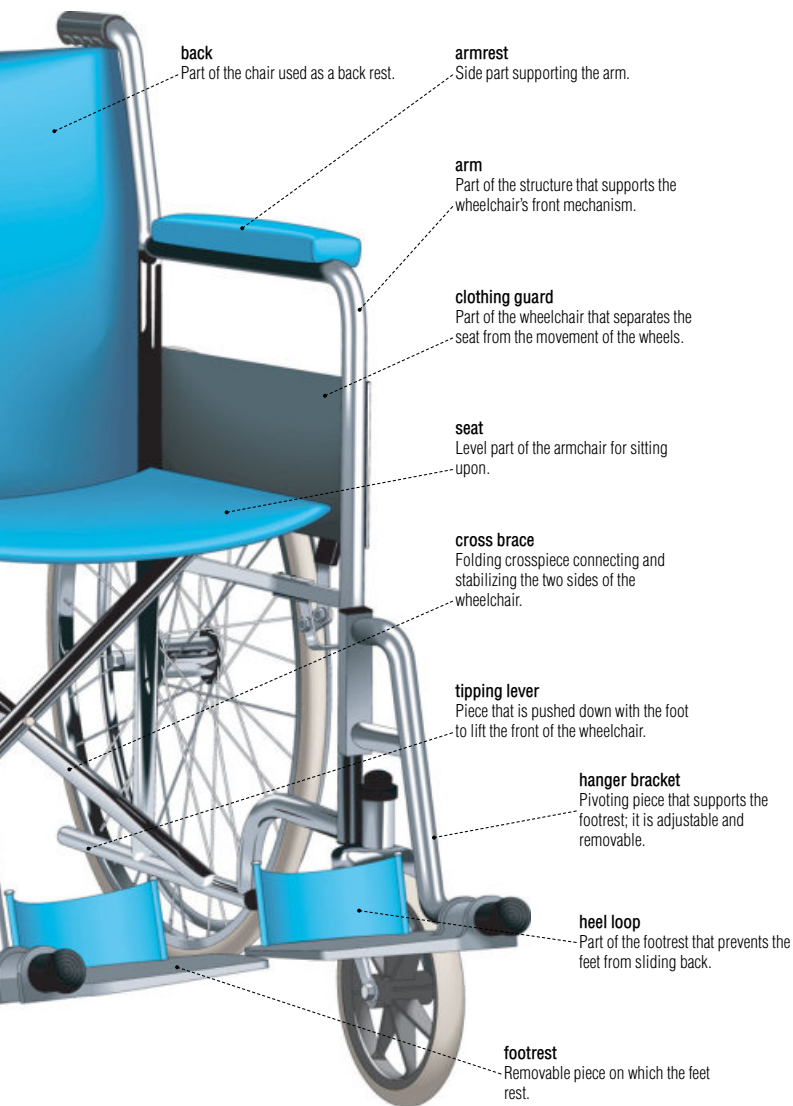
Support that slides or is lifted to help people who are too weak to walk unaided.



wheelchair

Chair with arms and a back that is mounted on wheels; it enables a person who has difficulty walking to move about.





forms of medications

The various forms of medications that are commercially available.



capsule

Small water-soluble pill with two sides that fit together; it is filled with a medication or a pharmaceutical product.



gelatin capsule

Receptacle filled with gelatin that contains a dose of medication or a pharmaceutical product.



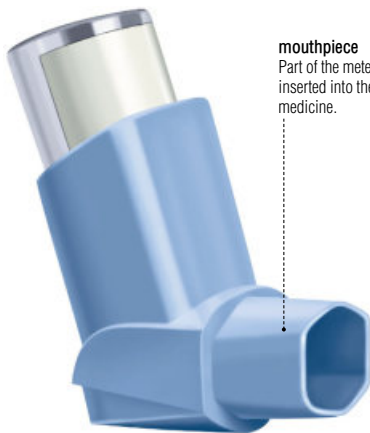
tablet

Pill made of compressed powder that contains a dose of medication or a pharmaceutical product.



vial

Bulging glass tube sealed at its ends; it contains a specific dose of medication or a pharmaceutical product in liquid form.



metered dose inhaler

Aerosol device that releases a specific dose of medication into the respiratory tract; it is used mainly to treat asthma.

mouthpiece

Part of the metered dose inhaler that is inserted into the mouth to absorb the medicine.

cap

Piece that covers the mouthpiece when the metered dose inhaler is not in use.



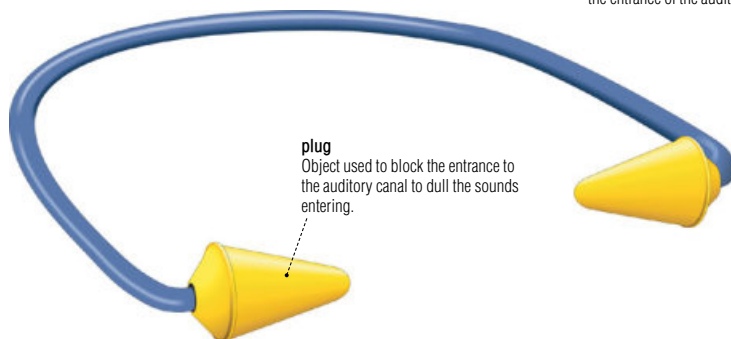
cough syrup

Flavored solution containing a medication that suppresses the cough reflex.

Devices that reduce workplace noise and noise caused by power tools.

earplugs

Device with plugs that are secured to the entrance of the auditory canal by a headband.

**plug**

Object used to block the entrance to the auditory canal to dull the sounds entering.

safety earmuffs

Pair of rigid shells that are connected by a headband and contain soft foam cushions.

headband
Flexible piece that keeps the earmuffs in place.

**foam cushion**

Soft material that fits around the ears to make the headband more comfortable.

eye protection

Safety goggles that protect the eyes from impact, flying objects and heat.

safety glasses

Glasses that consist of plastic lenses attached to a frame with temples; they come with or without side protection.

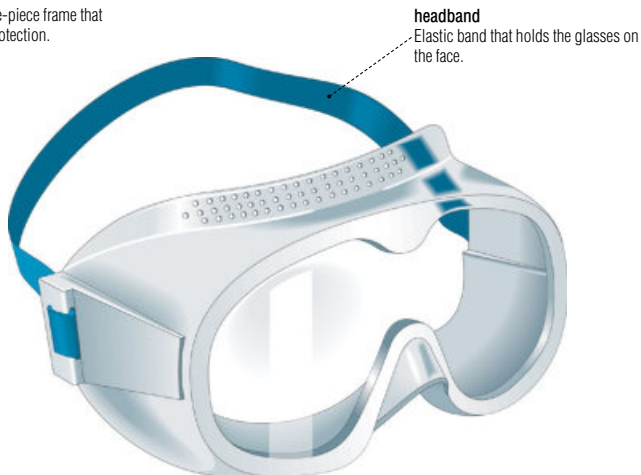


temple

Articulated stem whose end curls behind the ears to keep the lenses in front of the eyes.

safety goggles

Watertight glasses with a one-piece frame that provide front and side eye protection.



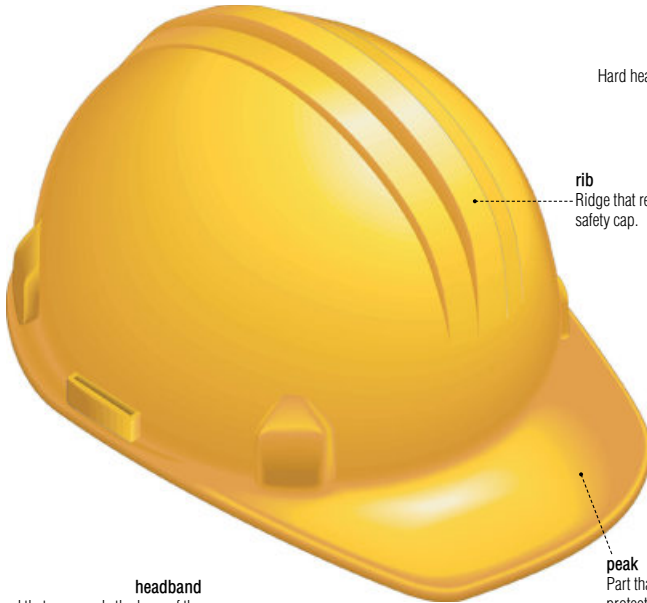
headband

Elastic band that holds the glasses on the face.

Safety helmet that protects against falling objects and impact.

safety cap

Hard headgear that protects the head.

**rib**

Ridge that reinforces the top of the safety cap.

peak

Part that juts out over the eyes to protect them.

headband

Band that surrounds the base of the skull to keep the cap in place.

**neck strap**

Strap that tightens around the nape to keep the safety cap in place.

suspension band

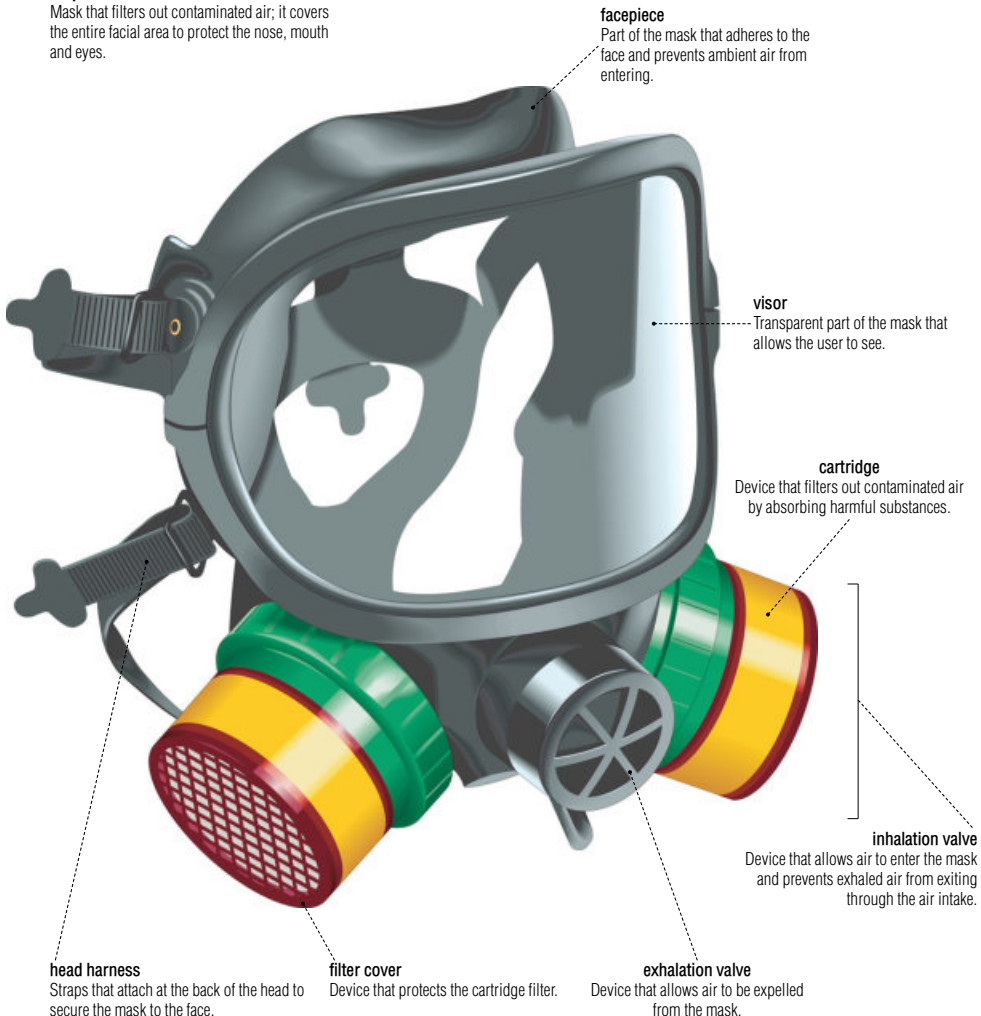
Belt on the inner top of the cap that is made of resistant fabric to cushion the impact of blows to the head.

respiratory system protection

Mask used to protect the respiratory tract from elements such as polluted air, dust, smoke and volatile chemicals.

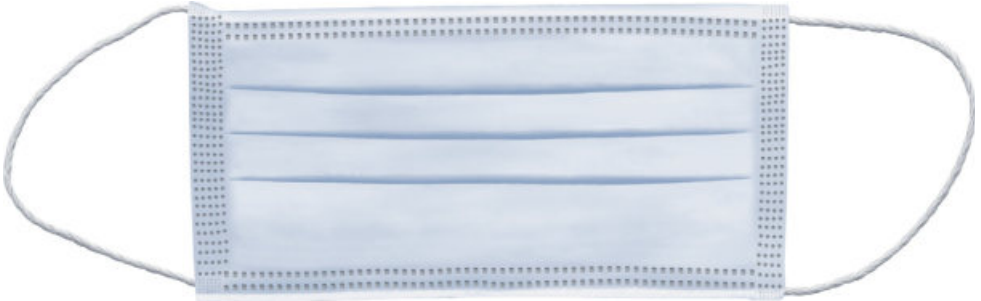
respirator

Mask that filters out contaminated air; it covers the entire facial area to protect the nose, mouth and eyes.

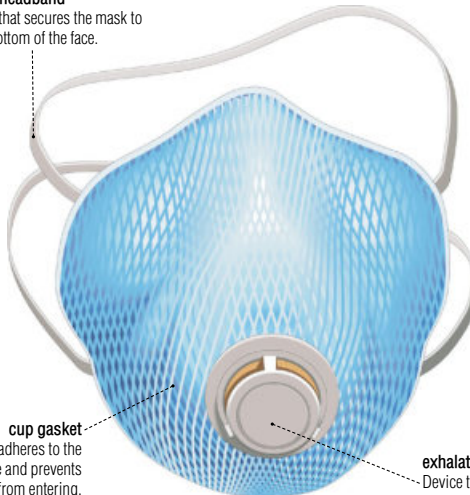


operating mask

Mask made of flexible fabric that covers the mouth and nose to impede transmission of micro-organisms.

**headband**

Elastic band that secures the mask to the bottom of the face.

**half-mask respirator**

Mask that covers and protects the nose and mouth.

cup gasket

Part of the mask that adheres to the bottom of the face and prevents ambient air from entering.

exhalation valve

Device that allows air to be expelled from the mask.

foot protection

Shoes and accessories worn to protect the feet from dangers such as falling objects, intense heat and sharp tools.

safety boot

Highly durable boot with an insulated nonslip sole and a reinforced toe; it comes up over the ankles.

**toe guard**

Accessory worn over a shoe to protect the end of the foot.

reinforced toe

Metal shell between the top of the boot and its lining; it protects the toes.

The pictograms used to warn of danger or indicate that safety equipment is mandatory.

dangerous materials

Pictogram warning of materials that pose a health or environmental risk owing to their properties or reactions.

**corrosive**

Pictogram warning of materials that can damage living tissue or other bodies such as metal.

**electrical hazard**

Pictogram warning of the danger of electrocution.

**explosive**

Pictogram warning of materials that explode by chemical reaction.

**flammable**

Pictogram warning of flammable materials.

**radioactive**

Pictogram warning of radioactive materials.

**poison**

Pictogram warning of materials harmful to an organism when inhaled, ingested or absorbed by the skin.

protection

Pictogram warning that protective equipment is mandatory on certain parts of the body.

**eye protection**

Pictogram warning that safety glasses are mandatory.

ear protection
Pictogram warning that equipment that reduces noise perception is mandatory.

**head protection**

Pictogram warning that safety caps are mandatory.

hand protection
Pictogram warning that protective gloves are mandatory.

**foot protection**

Pictogram warning that protective footwear or accessories are mandatory.

respiratory system protection
Pictogram warning that respirators are mandatory.





All the subjects are explained with highly realistic illustrations, accompanied by terminology and concise definitions produced by an experienced group of professionals.

Convenient and affordable, this book is the best reference tool to explore all aspects of human beings!

