

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.

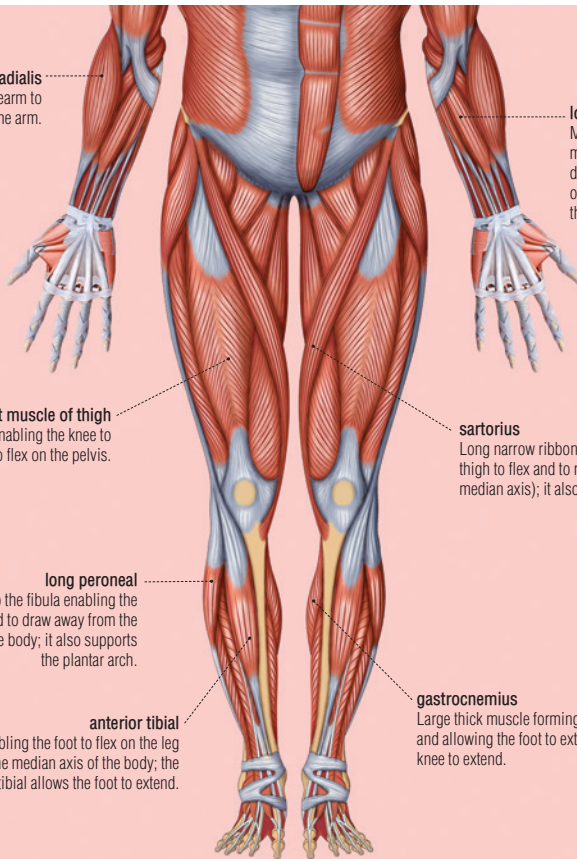
deltoid

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.

gastrocnemius

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

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.

THE HUMAN BEING

Jean-Claude **Corbeil**
Ariane **Archambault**

ACKNOWLEDGEMENTS

Our deepest gratitude to the individuals, institutions, companies, and businesses that have provided us with the latest technical documentation for use in preparing this dictionary.

Arcand, Denys (motion picture director); International Association of Marine Aids to Navigation and Lighthouse Authority; Canadian Payments Association (Charlie Clarke); Canadian Bankers Association (Lise Provost); Automobiles Citroën; Automobiles Peugeot; Bank of Canada (Lyse Brousseau); Royal Bank of Canada (Raymond Chouinard, Francine Morel, Carole Trottier); Barrett Xplore inc.; Bazzarín, Christine; Library of Canadian Parliament (Information Services); Bibliothèque nationale du Québec (Jean-François Palomino); Bluechip Kennels (Olga Gagne); Bombardier Aerospace; Bridgestone-Firestone; Brother (Canada); Canadian National; Casavant Frères Ltée; C.O.J.O. ATHENS 2004 (International Media Service); Centre Eaton de Montréal; Centre national du costume (Recherche et diffusion); Cetacean Society International (William R. Rossiter); Chagnon, Daniel (architect D.E.S. - M.E.Q.); Cohen et Rubin Architectes (Maggy Cohen); Commission scolaire de Montréal (École St-Henri); Hudson Bay Company (Nunzia Iavarone, Ron Oyama); Corporation d'hébergement du Québec (Céline Drolet); National Theatre School of Canada (Library); Élevage Le Grand Saphir (Stéphane Aytte); Atomic Energy of Canada; Eurocopter; Famous Players; Fédération bancaire française (Védi Hékiman); Fontaine, Pierre-Henry (biologist); Future Shop; Garaga; Groupe Jean Coutu; Hôpital du Sacré-Cœur de Montréal; Hôtel Inter-Continental; Hydro-Québec; I.P.I.Q. (Serge Bouchard); IGA Barcelo; International Entomological Society (Dr. Michael Geisthardt); Irisbus; Jérôme, Danielle (O.D.); La Poste (Colette Gouts); Le Groupe Canam Manac inc.; Lévesque, Georges (urgentologist); Lévesque, Robert (chief machinist); Manutan; Marriott SpringHill Suites; MATRA S.A.; Métro inc.; National Defence of Canada (Public Affairs); ministère de la Défense, République Française; ministère de la Justice du Québec (Service de la gestion immobilière - Carol Sirois); ministère de l'Éducation du Québec (Direction de l'équipement scolaire - Daniel Chagnon); Muse Productions (Annick Barbery); National Aeronautics and Space Administration; National Oceanic and Atmospheric Administration; Nikon Canada inc.; Normand, Denis (telecommunications consultant); Office de la langue française du Québec (Chantal Robinson); Paul Demers & Fils inc.; Phillips (France); Pratt & Whitney Canada inc.; Prévost Car inc.; Radio Shack Canada Ltée; Réno-Dépôt inc.; Robitaille, Jean-François (Department of Biology, Laurentian University); Rocking T Ranch and Poultry Farm (Pete and Justine Ther); RONA inc.; Sears Canada inc.; Public Works and Government Services Canada: Translation Bureau; Correctional Service Canada; Société d'Entomologie Africaine (Alain Drumont); Société des musées québécois (Michel Perron); Société Radio-Canada; Sony du Canada Ltée; Sûreté du Québec; Théâtre du Nouveau Monde; Transport Canada (Julie Poirier); Urgences-Santé (Éric Berry); Ville de Longueuil (Direction de la Police); Ville de Montréal (Service de la prévention des incendies); Vimont Lexus Toyota; Volvo Bus Corporation; Yamaha Motor Canada Ltd.

The Human Being was created and produced by

ISBN 978-2-7644-0885-8



QA International

329 De la Commune West, 3rd Floor
Montreal (Quebec) H2Y 2E1 Canada
T 514.499.3000 F 514.499.3010

www.qa-international.com

© QA International 2009. All rights reserved.

No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing by QA International.

Printed and bound in Singapore
10 9 8 7 6 5 4 3 2 1 12 11 10 09

www.qa-international.com

Version 3.5.1

EDITORIAL STAFF

Editor: Jacques Fortin
Authors: Jean-Claude Corbeil 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

QA International wishes to extend a special thank you to the following people for their contribution to this book:

Jean-Louis Martin, Marc Lalumière, Jacques Perrault, Stéphane Roy, Alice Comtois, Michel Blais, Christiane Beauregard, Mamadou Togola, Annie Maurice, Charles Campeau, Mivil Deschênes, Jonathan Jacques, Martin Lortie, Frédéric Simard, Yan Tremblay, Mathieu Blouin, Sébastien Dallaire, Hoang Khanh Le, Martin Desrosiers, Nicolas Oroc, François Escalmel, Danièle Lemay, Pierre Savoie, Benoit Bourdeau, Marie-Andrée Lemieux, Caroline Soucy, Yves Chabot, Anne-Marie Ouellette, Anne-Marie Villeneuve, Anne-Marie Brault, Nancy Lepage, Daniel Provost, François Vézina, Guylaine Houle, Daniel Beaulieu, Sophie Pellerin, Tony O'Riley, Mac Thien Nguyen Hoang, Serge D'Amico.

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

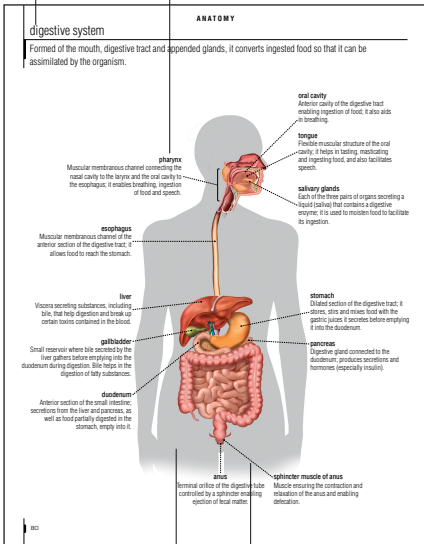
Each term appears in the index with a reference to the pages on which it appears.

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.

CONTENTS

8 CELL AND TISSUES

- 8 Human cell
- 10 DNA
- 12 Tissues

14 HUMAN BODY

- 14 Man
- 18 Woman

22 ANATOMY

- 22 Muscles
- 31 Skeleton
- 55 Teeth
- 58 Blood circulation
- 66 Immune system
- 69 Endocrine system
- 73 Respiratory system
- 80 Digestive system
- 84 Urinary system
- 88 Nervous system
- 105 Breast
- 106 Female reproductive organs
- 109 Male reproductive organs

112 SENSE ORGANS

- 112 Touch
- 117 Hearing
- 122 Smell and taste
- 128 Sight

136 HEALTH

- 136 Ambulance
- 138 First aid equipment
- 144 First aid kit
- 146 Clinical thermometers
- 147 Blood pressure monitor
- 148 Hospital
- 156 Walking aids
- 158 Wheelchair
- 160 Forms of medications

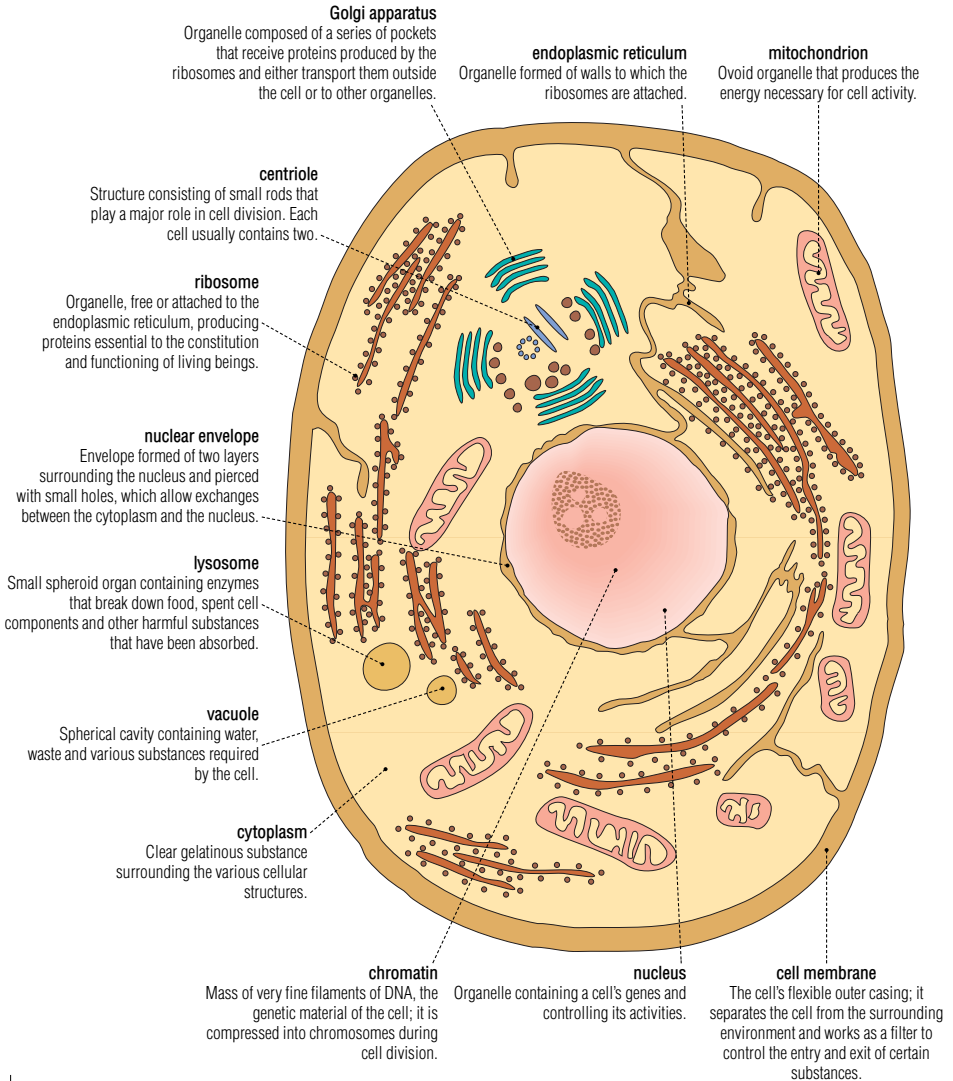
161 SAFETY

- 161 Ear protection
- 162 Eye protection
- 163 Head protection
- 164 Respiratory system protection
- 166 Foot protection
- 167 Safety symbols

169 INDEX

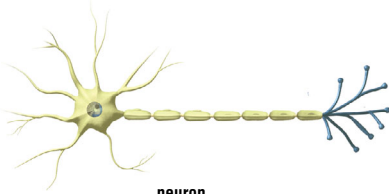
human cell

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



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.



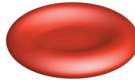
spermatozoon

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



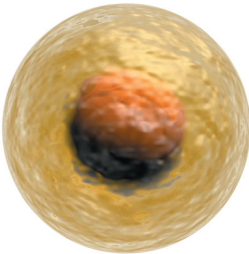
osteocyte

Irregularly shaped cell making up bony tissue.



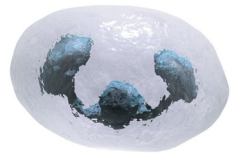
red blood cell

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.

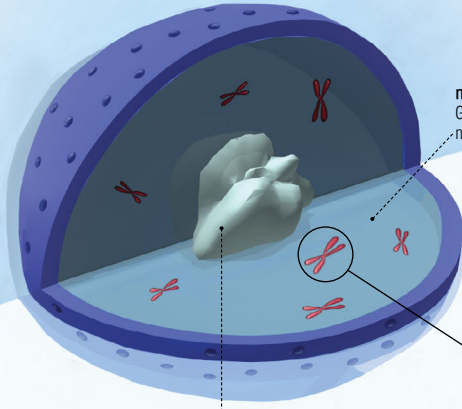


DNA

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

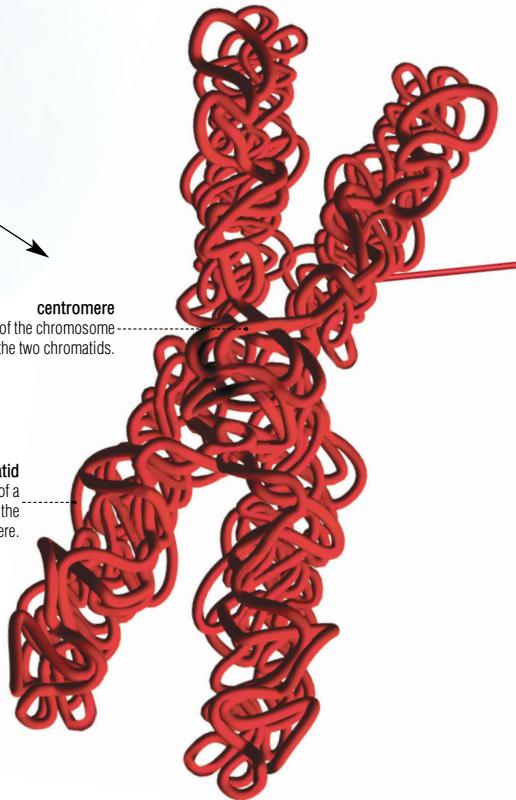
Element, composed of DNA and proteins, that carries genetic information. Human cells have 46, which can be observed only during cell division.

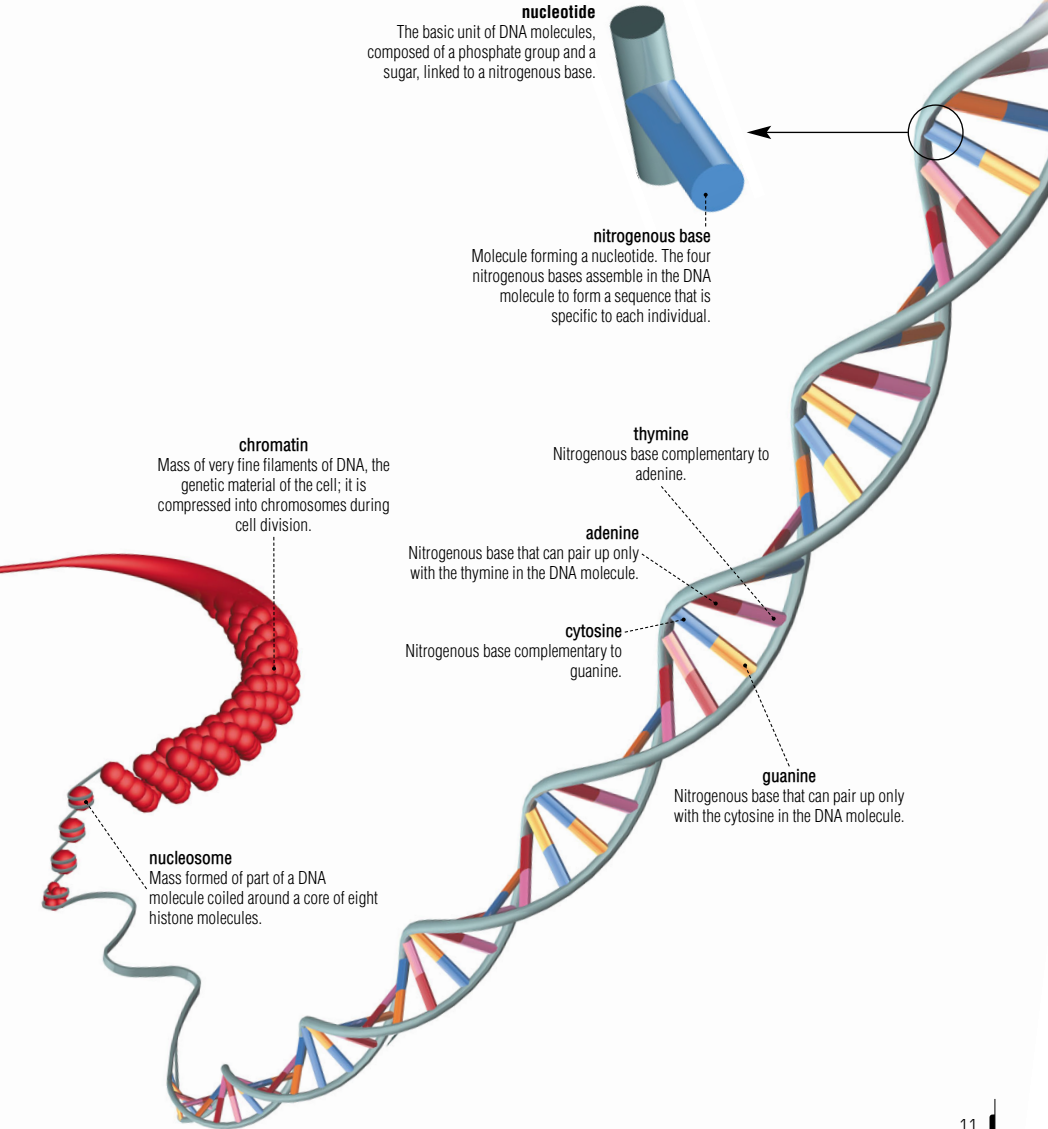
centromere

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.





nucleotide

The basic unit of DNA molecules, composed of a phosphate group and a sugar, linked to a nitrogenous base.

nitrogenous base

Molecule forming a nucleotide. The four nitrogenous bases assemble in the DNA molecule to form a sequence that is specific to each individual.

chromatin

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

thymine

Nitrogenous base complementary to adenine.

adenine

Nitrogenous base that can pair up only with the thymine in the DNA molecule.

cytosine

Nitrogenous base complementary to guanine.

guanine

Nitrogenous base that can pair up only with the cytosine in the DNA molecule.

nucleosome

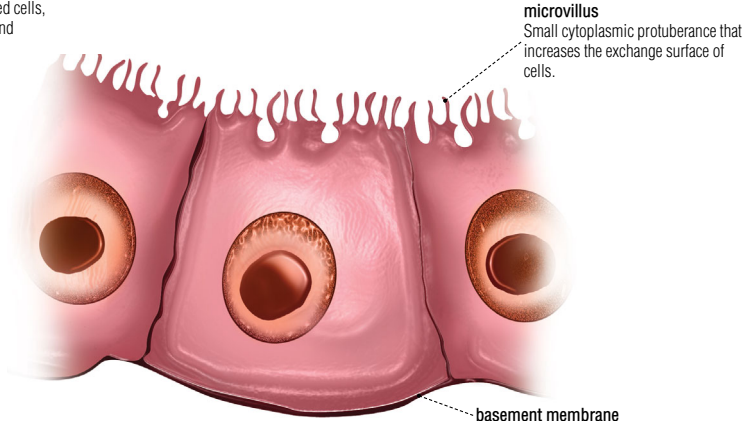
Mass formed of part of a DNA molecule coiled around a core of eight histone molecules.

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.



microvillus

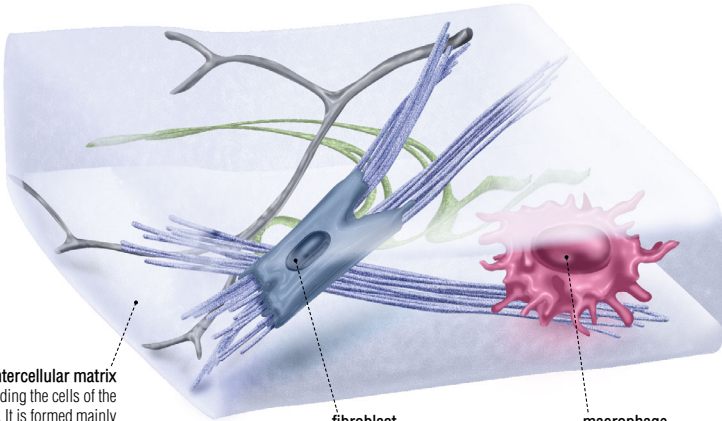
Small cytoplasmic protuberance that increases the exchange surface of cells.

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.

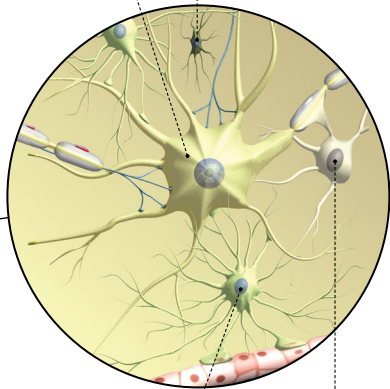
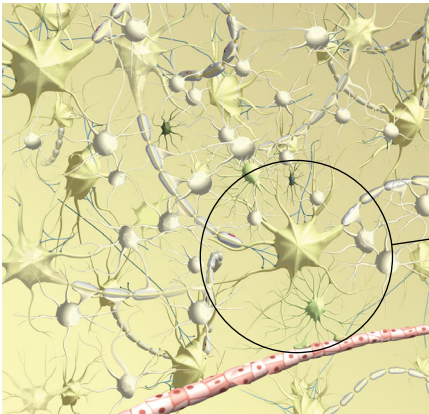


nerve tissue

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.

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



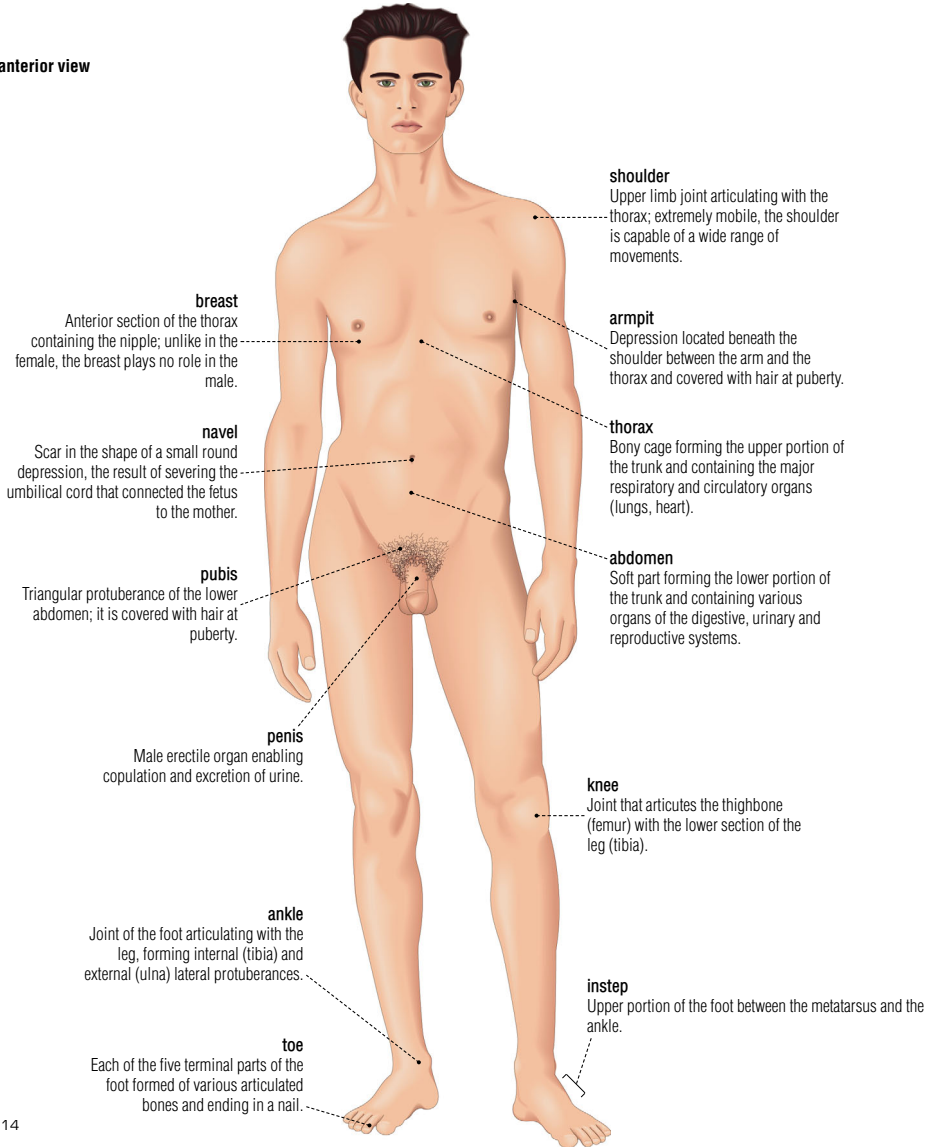
astrocyte
Glial cell whose numerous extensions terminate in feet that form barriers between neurons and blood capillaries.

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

man

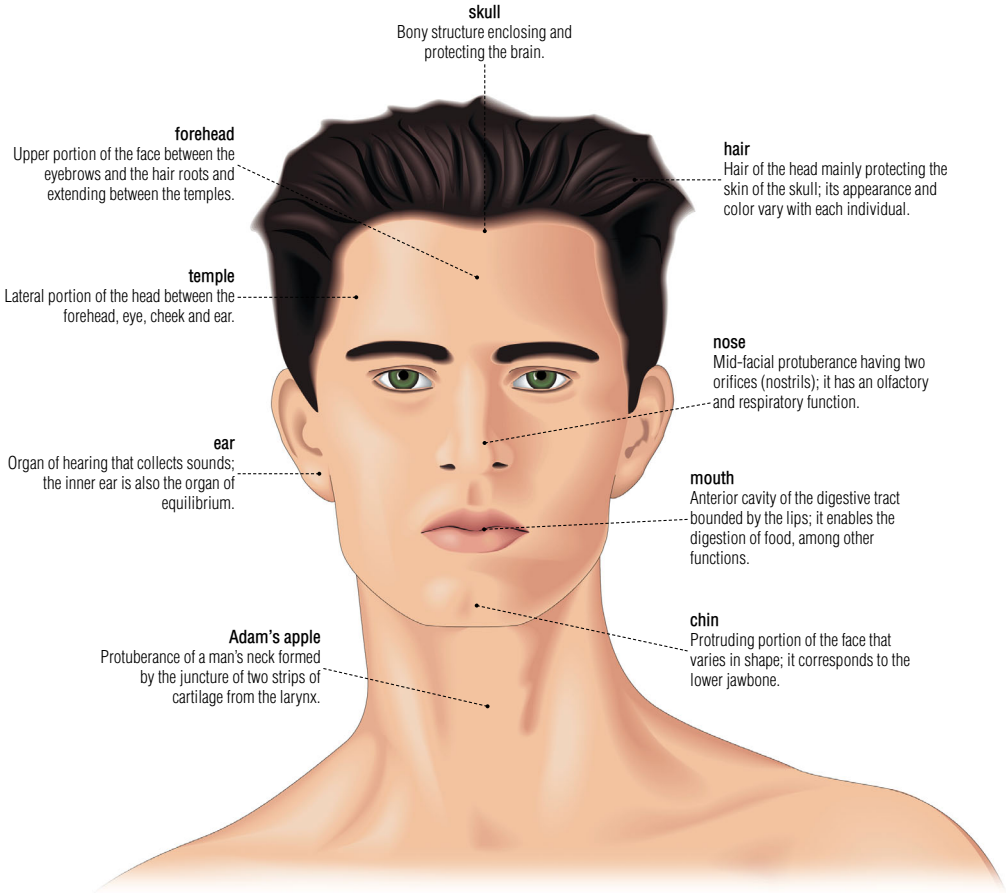
Male human being producing cells able to fertilize the ovum (egg); the male's skeleton is generally larger and heavier than that of the female.

anterior view

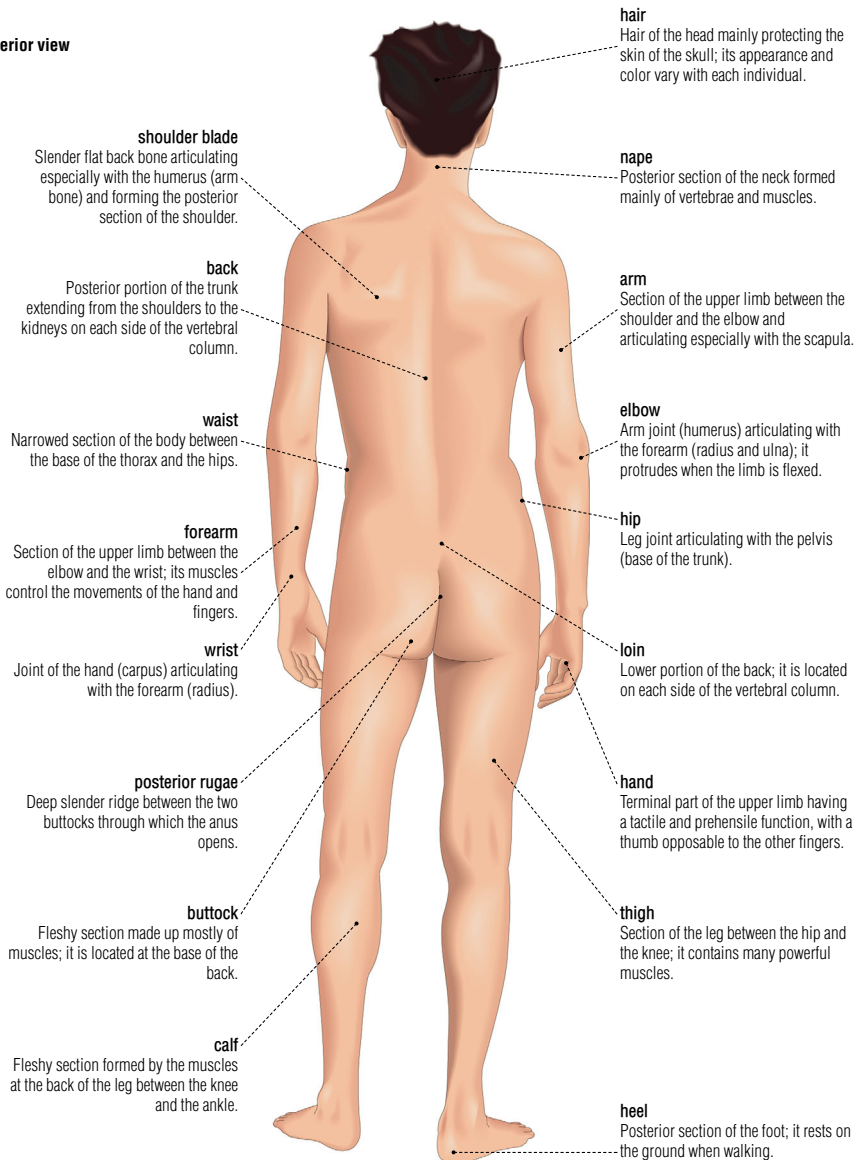


face

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



posterior view



**head**

Upper portion of the body supported by the neck and made up essentially of the main sensory organs and the brain.

neck

Portion of the body connecting the head to the trunk; the respiratory tract, nerve centers and blood vessels, in particular, pass through it.

trunk

Portion of the body to which the head and limbs are attached; it is made up of the thorax, abdomen and pelvis.

leg

Lower limb attached to the trunk; it supports the body in an upright position and during locomotion.

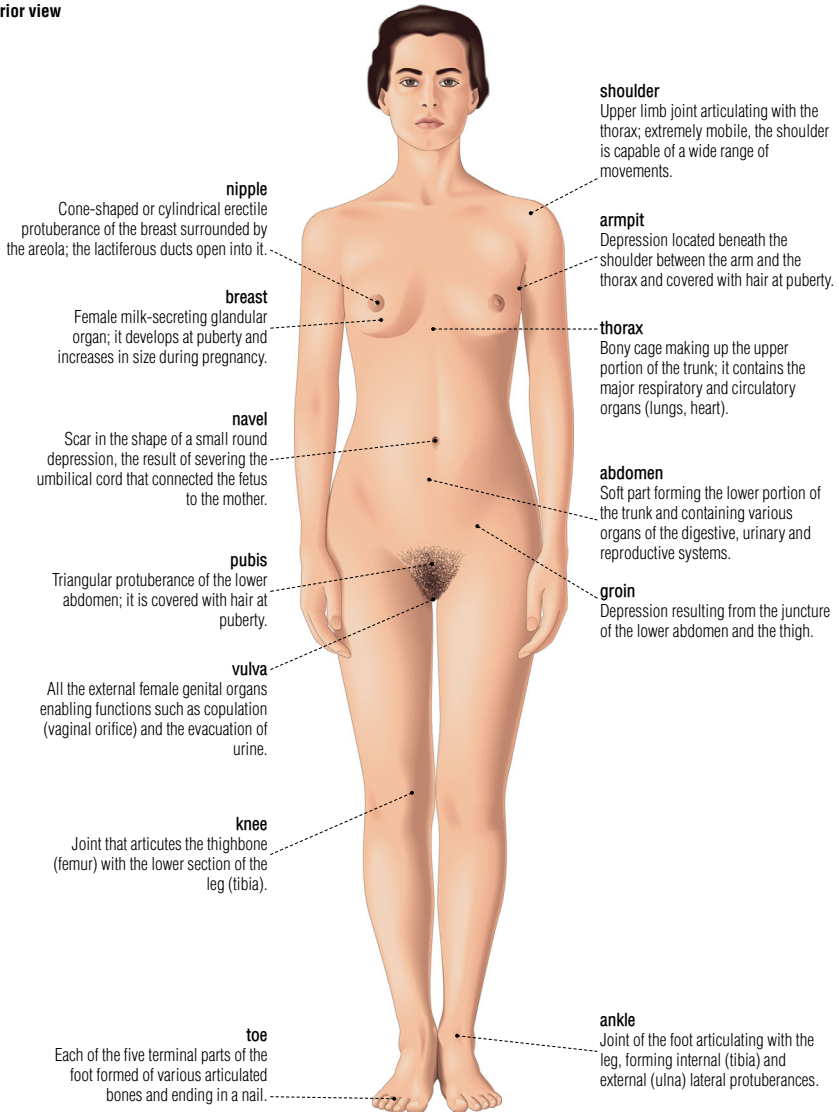
foot

Terminal part of the lower limb enabling upright stance and walking.

woman

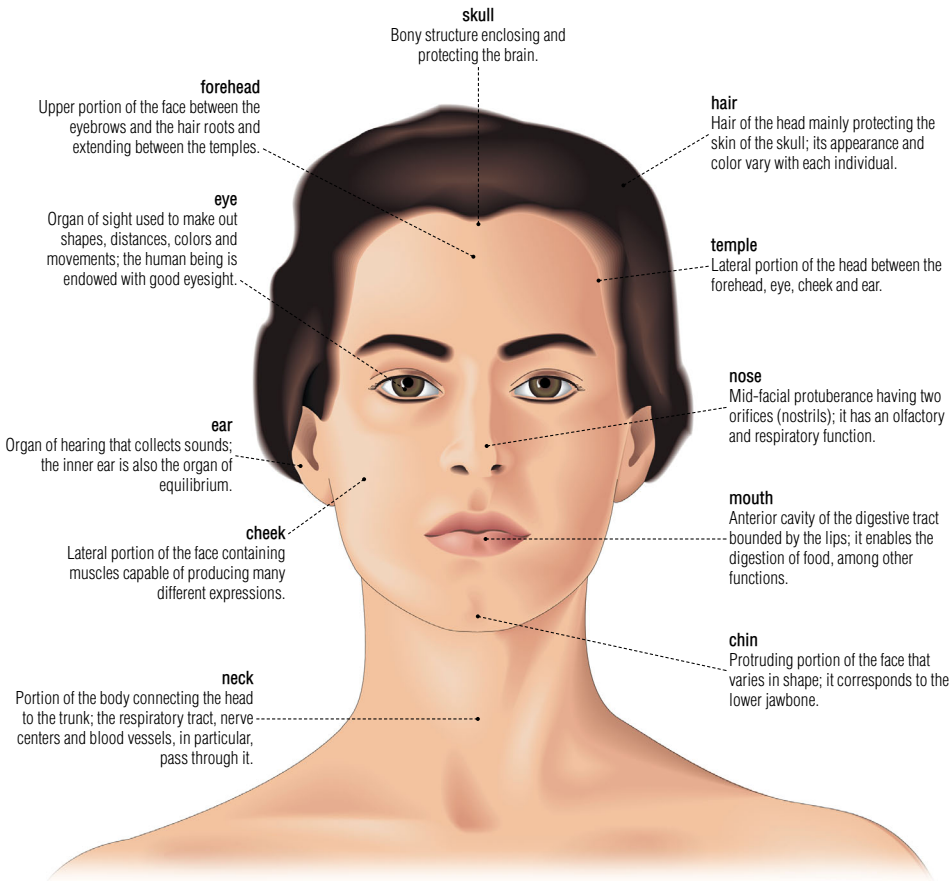
Human being of the female sex capable of conceiving children from an ovum (egg) fertilized by a spermatozoon (sperm, the reproductive male cell).

anterior view

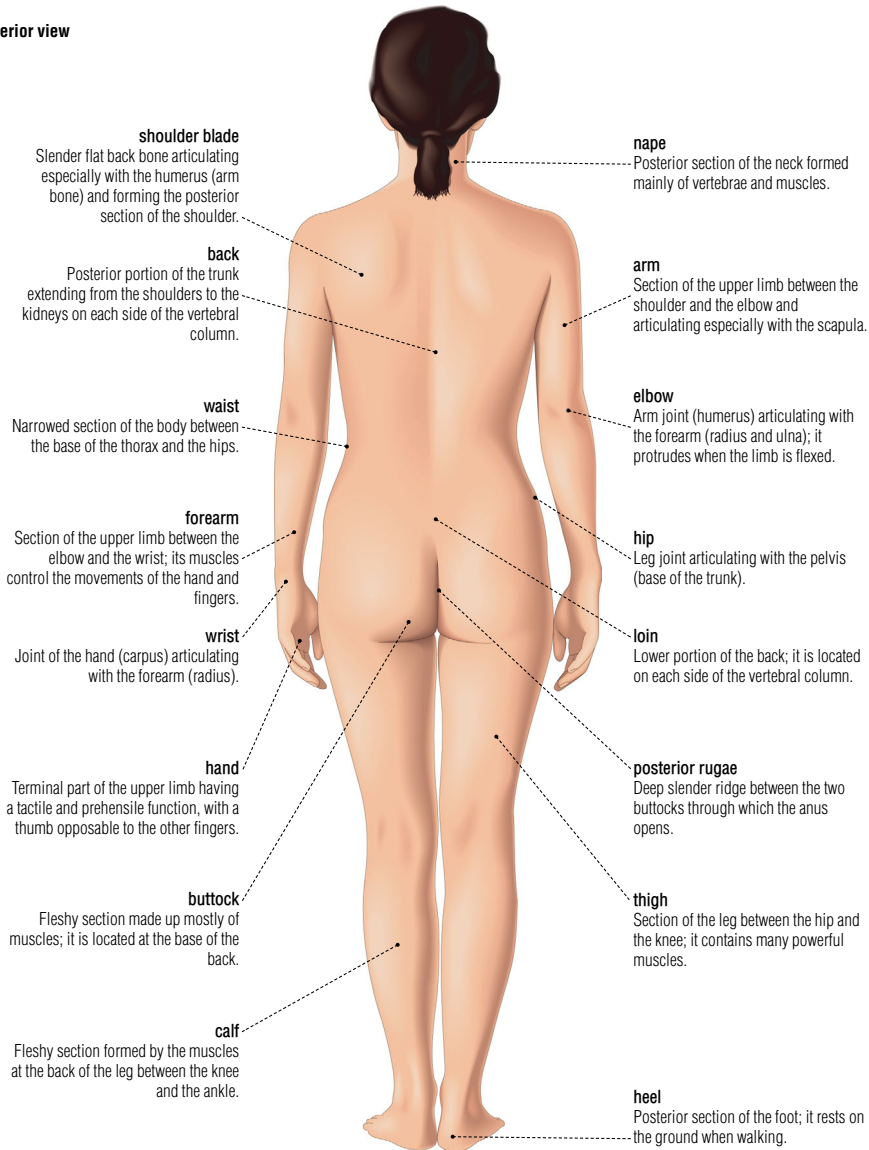


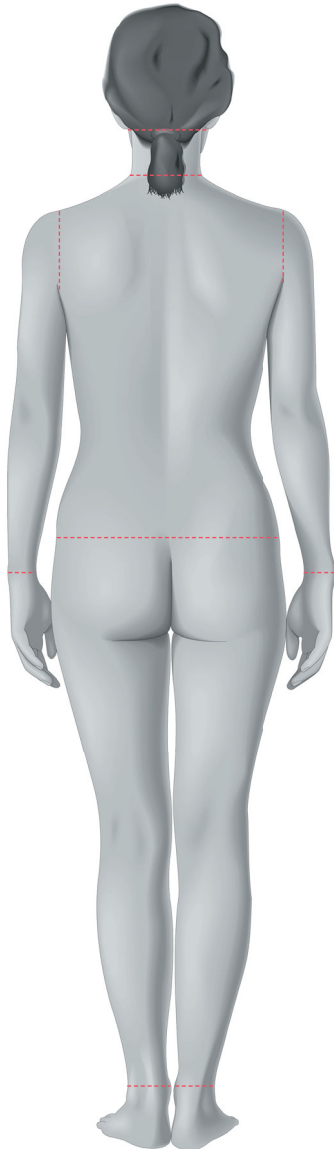
face

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



posterior view



**head**

Upper portion of the body supported by the neck and made up essentially of the main sensory organs and the brain.

neck

Portion of the body connecting the head to the trunk; the respiratory tract, nerve centers and blood vessels, in particular, pass through it.

trunk

Portion of the body to which the head and limbs are attached; it is made up of the thorax, abdomen and pelvis.

leg

Lower limb attached to the trunk; it supports the body in an upright position and during locomotion.

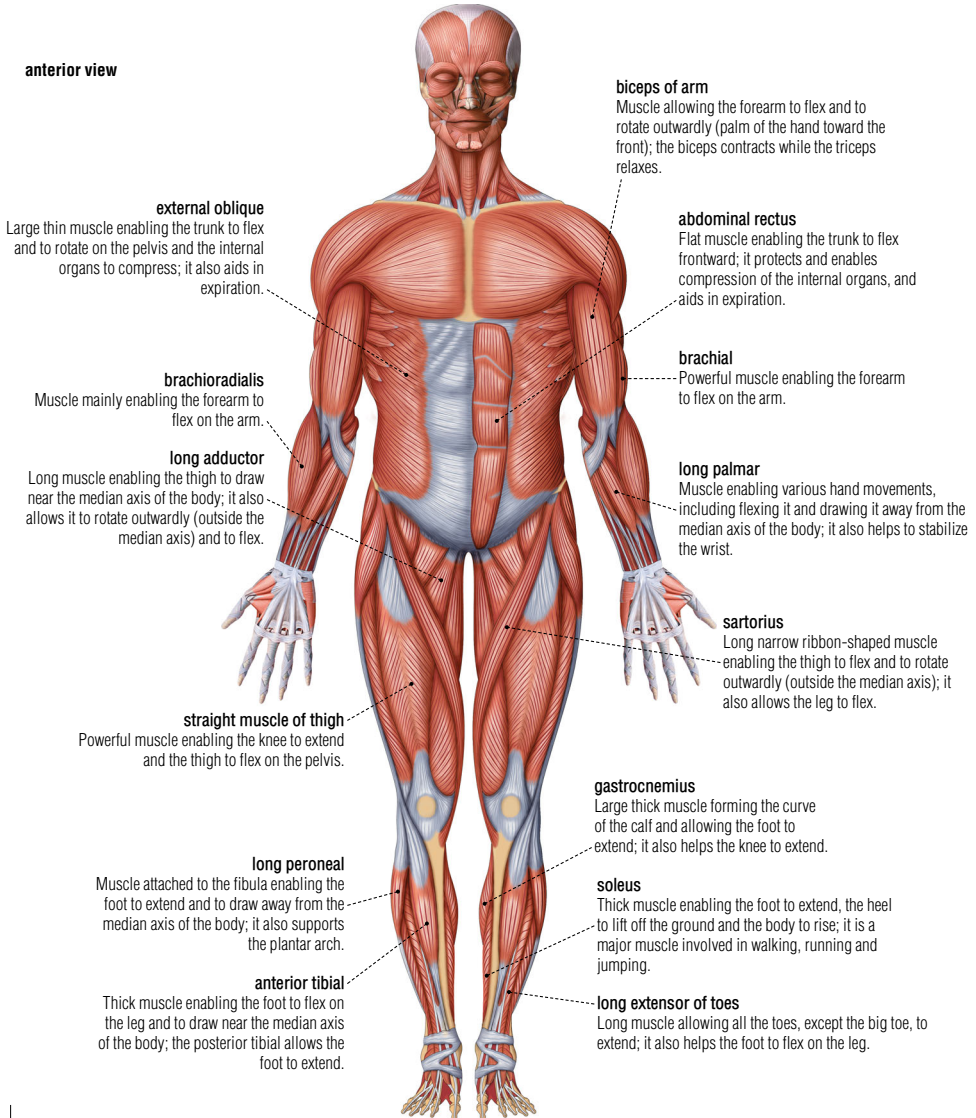
foot

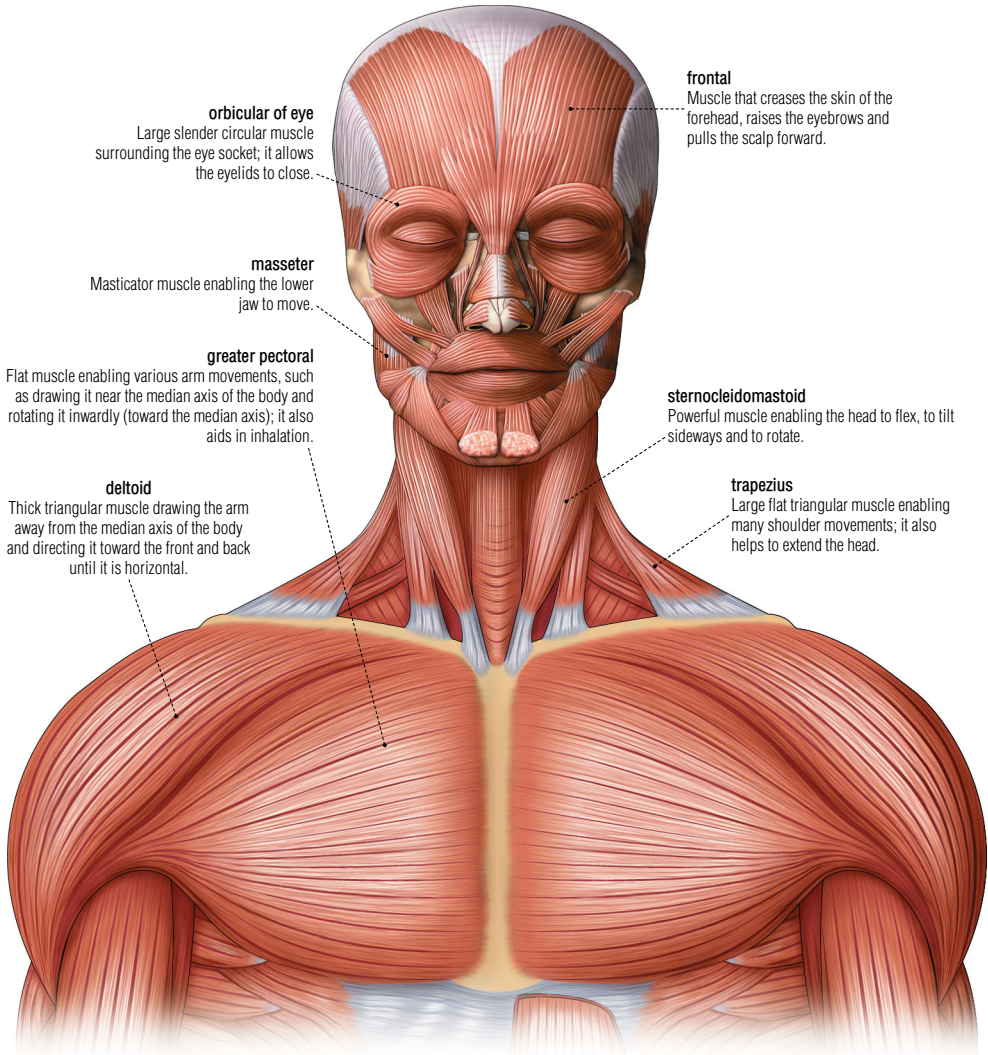
Terminal part of the lower limb enabling upright stance and walking.

muscles

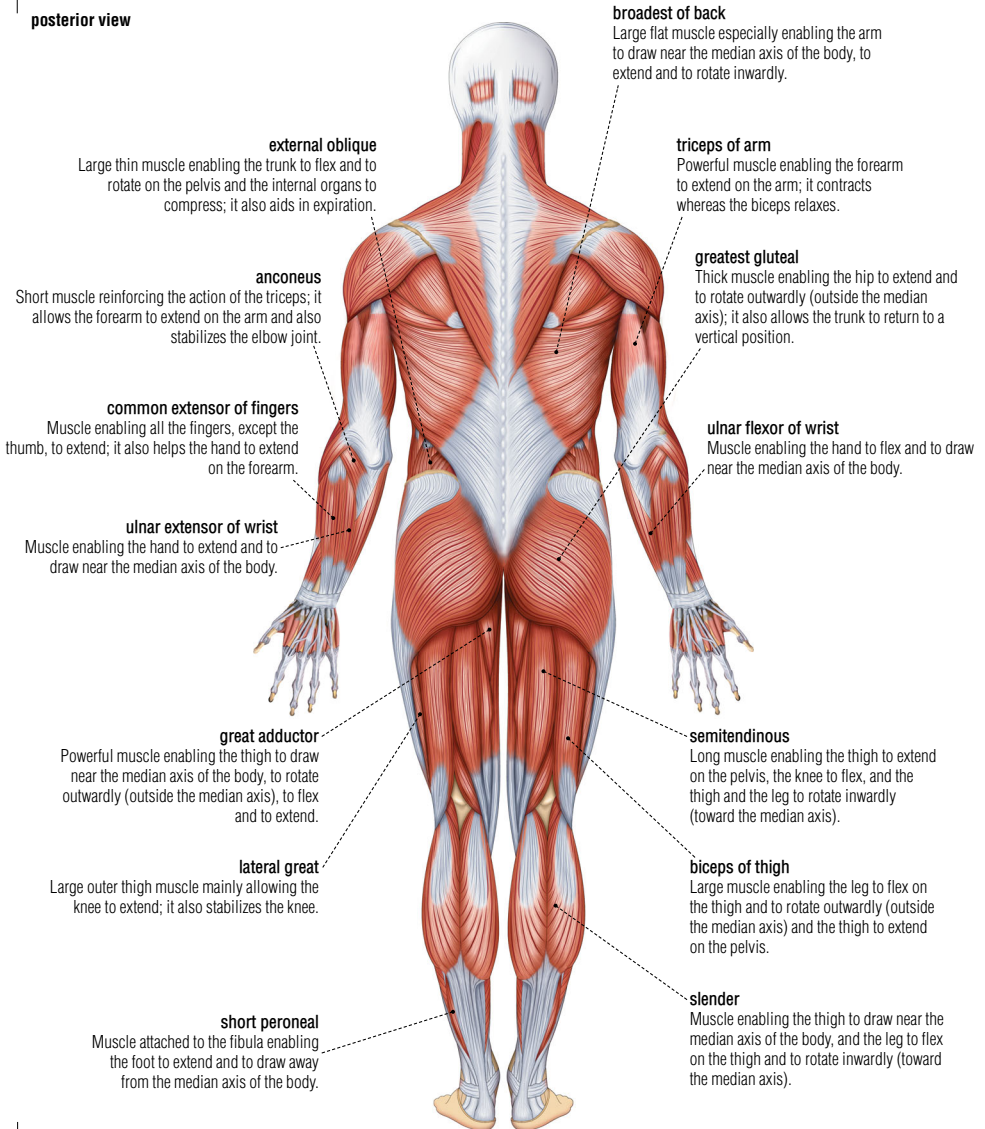
Contractile organs made of fibers allowing the body to move and maintain its posture; the human body has over 600 muscles.

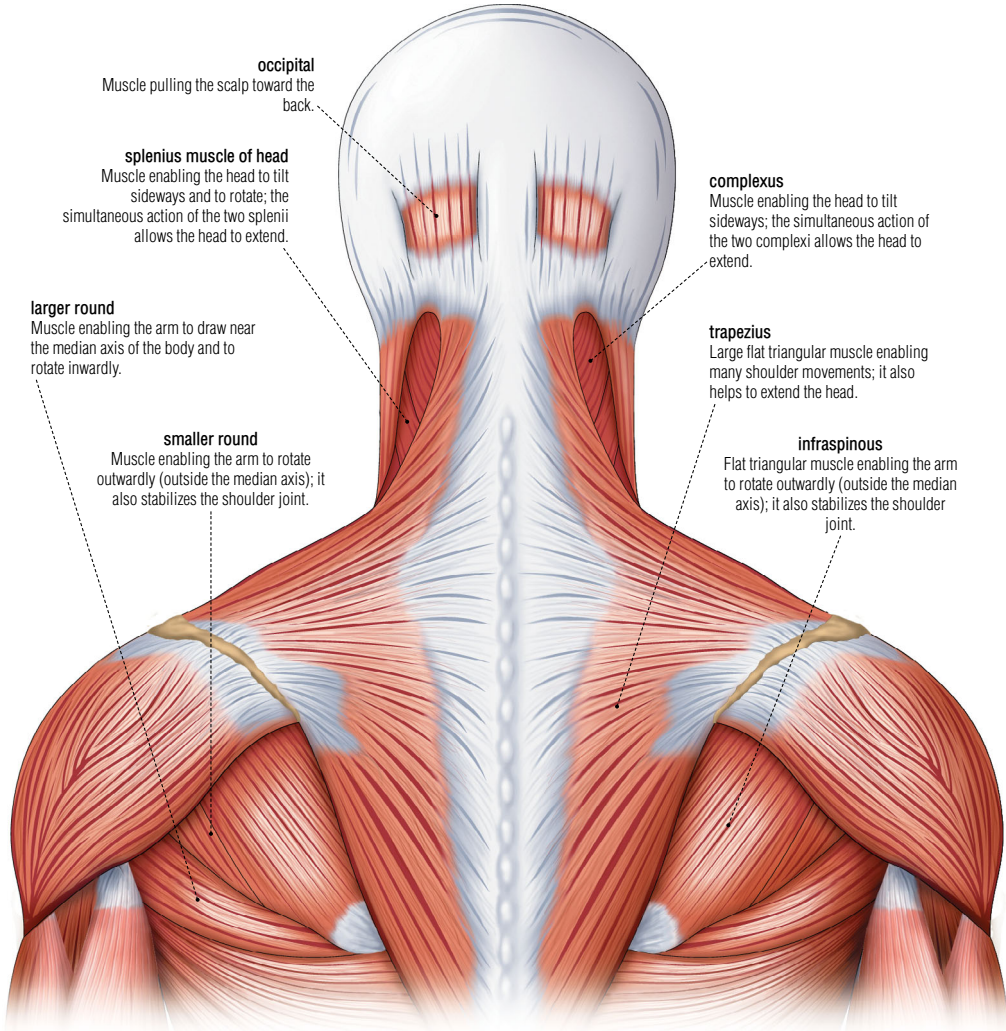
anterior view



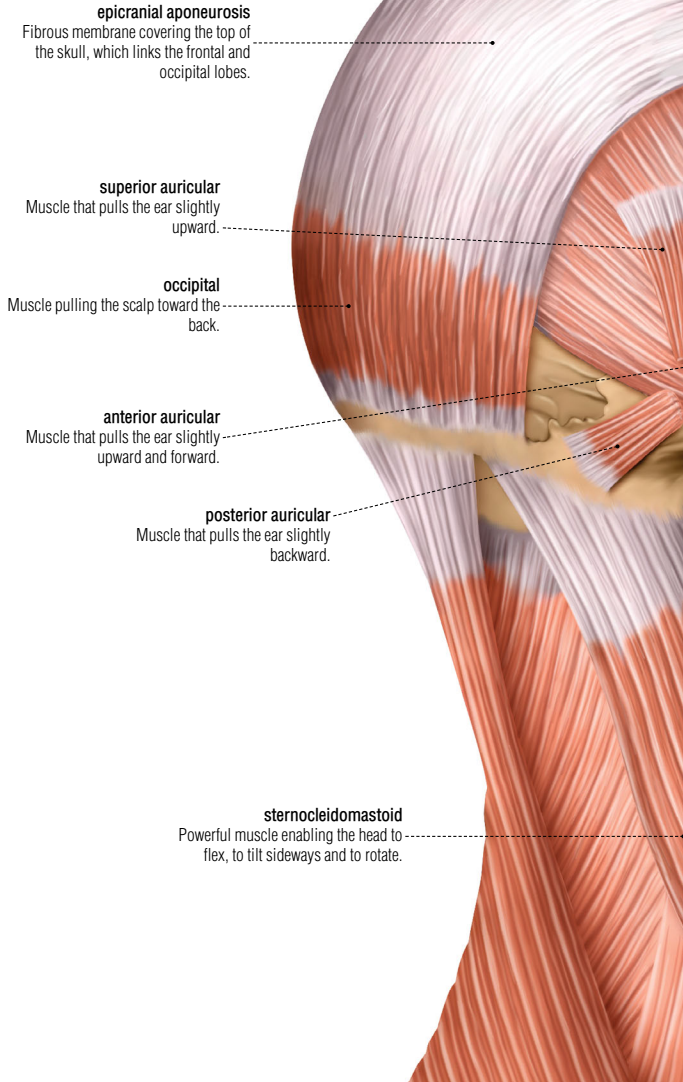


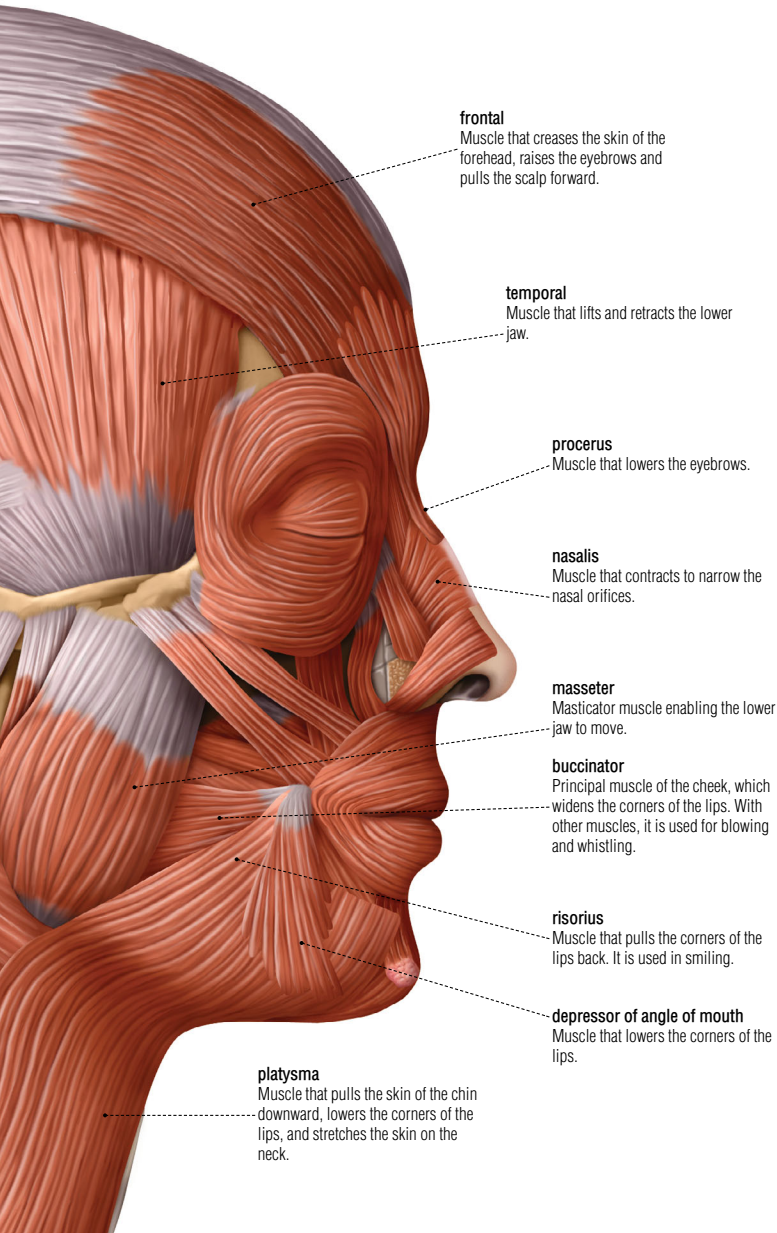
posterior view



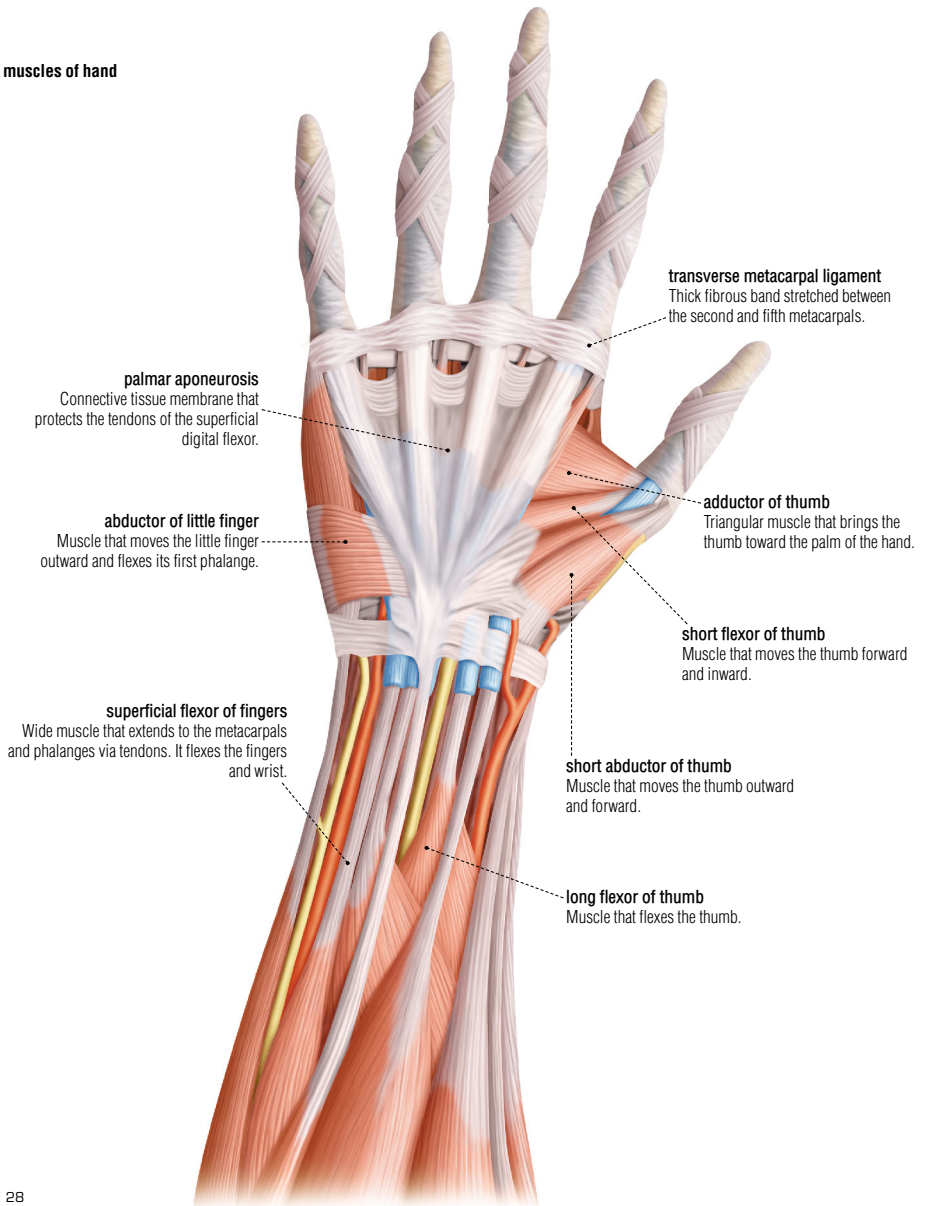


muscles of head: lateral view





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

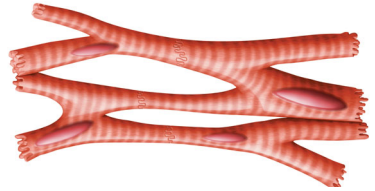
Fibrous tissue connecting the muscle to the bone.

insertion

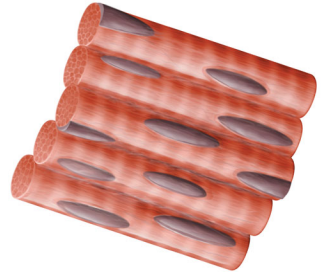
Point where a striated muscle is attached to a bone that is set in motion by muscle contraction.

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**

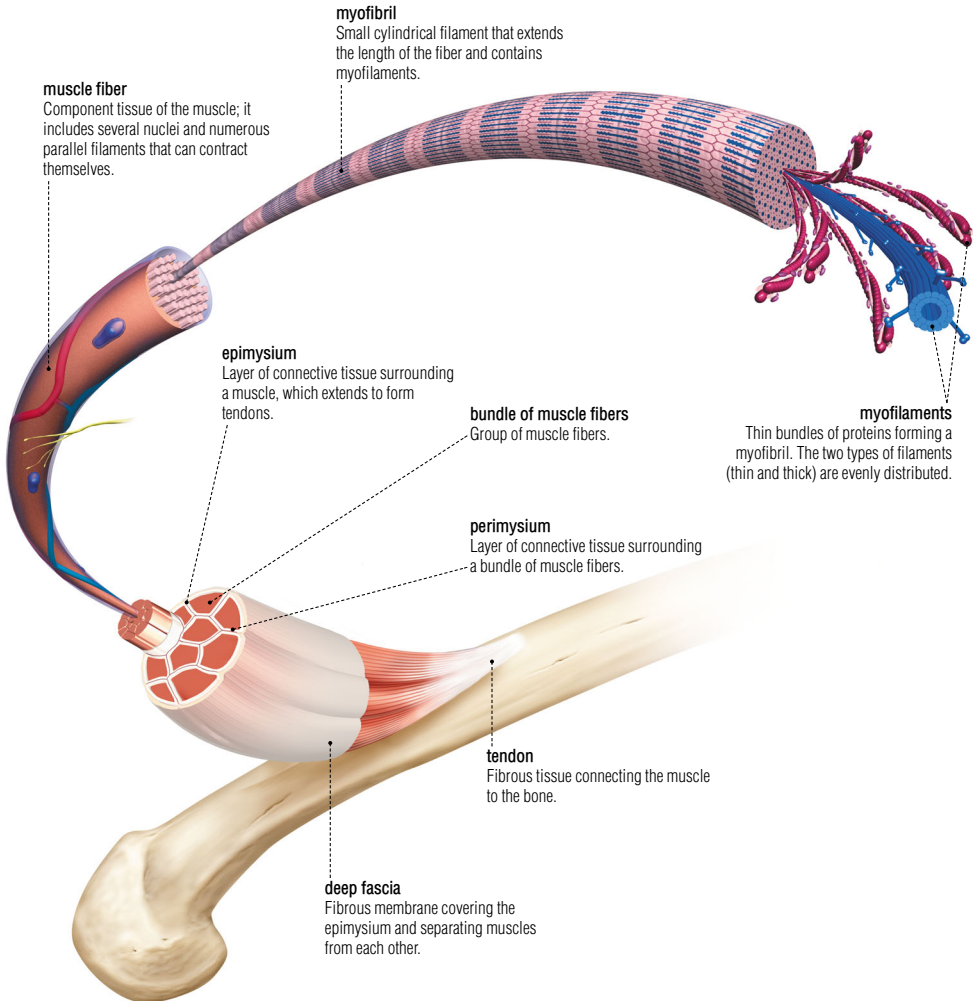
Muscle composed of muscle fibers with multiple nuclei grouped in dense bundles. Striated muscles control the skeleton's voluntary movements.

**smooth muscle**

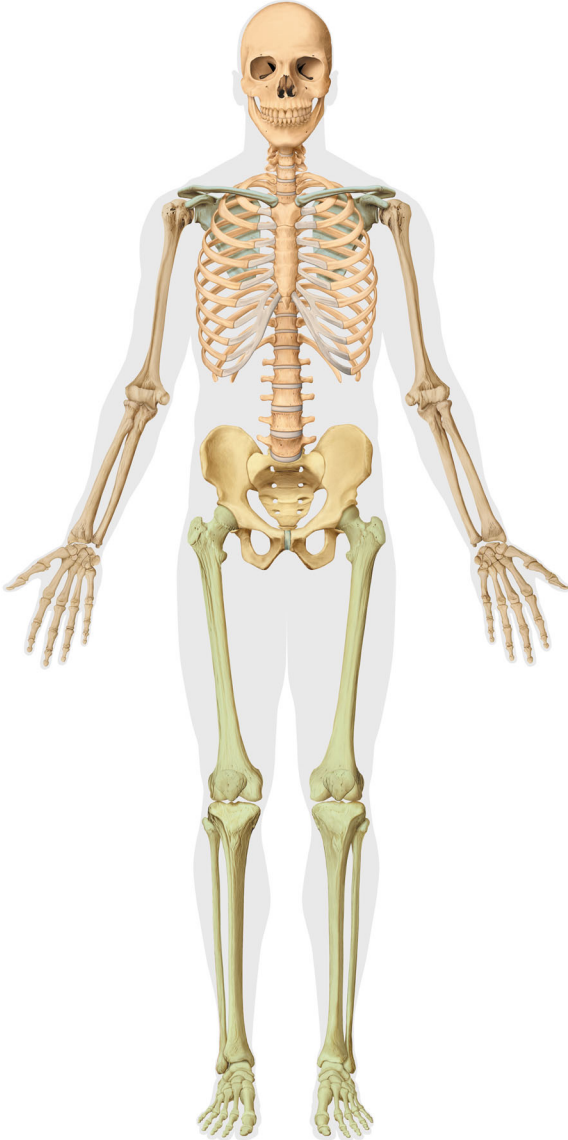
Muscle composed of small muscle fibers with a single nucleus. Smooth muscles control the involuntary movements of internal organs.

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.

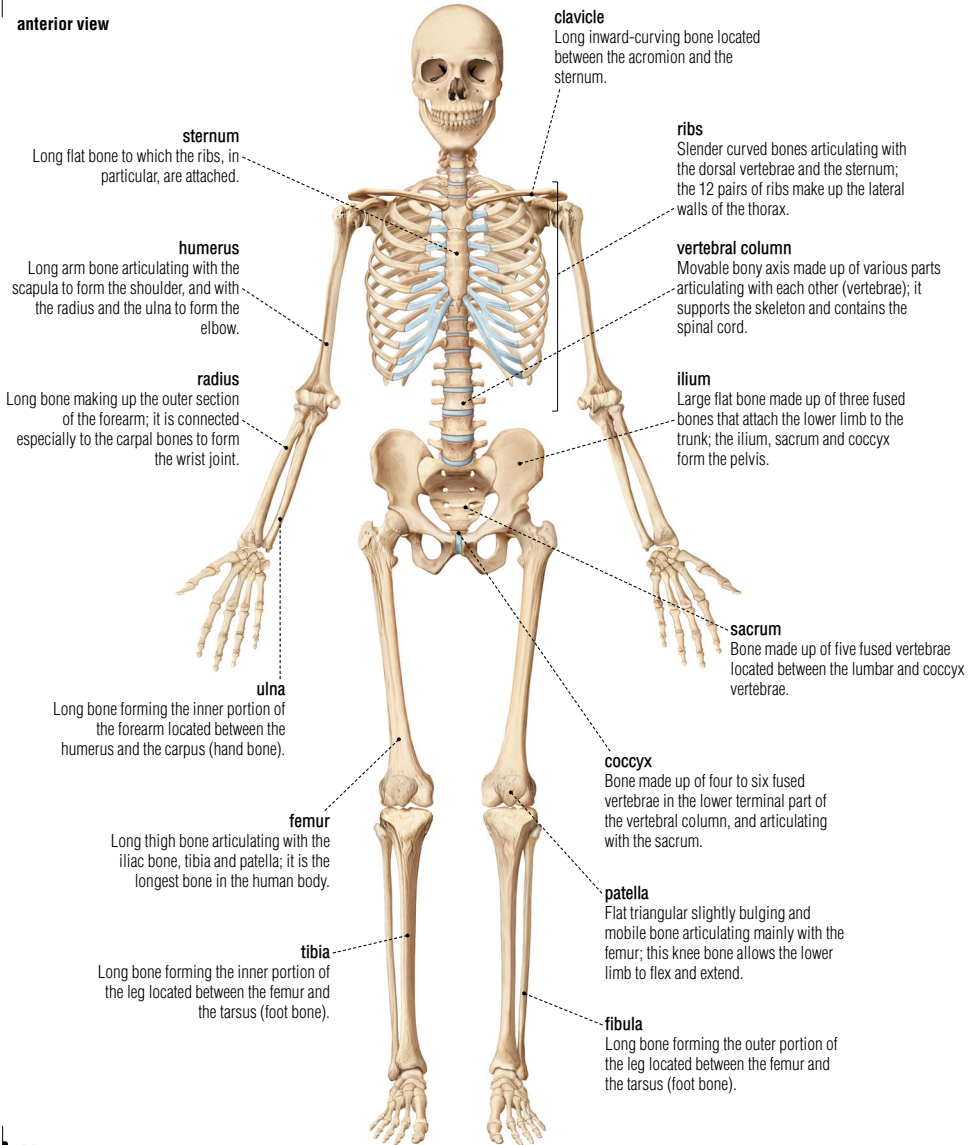
pelvis

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

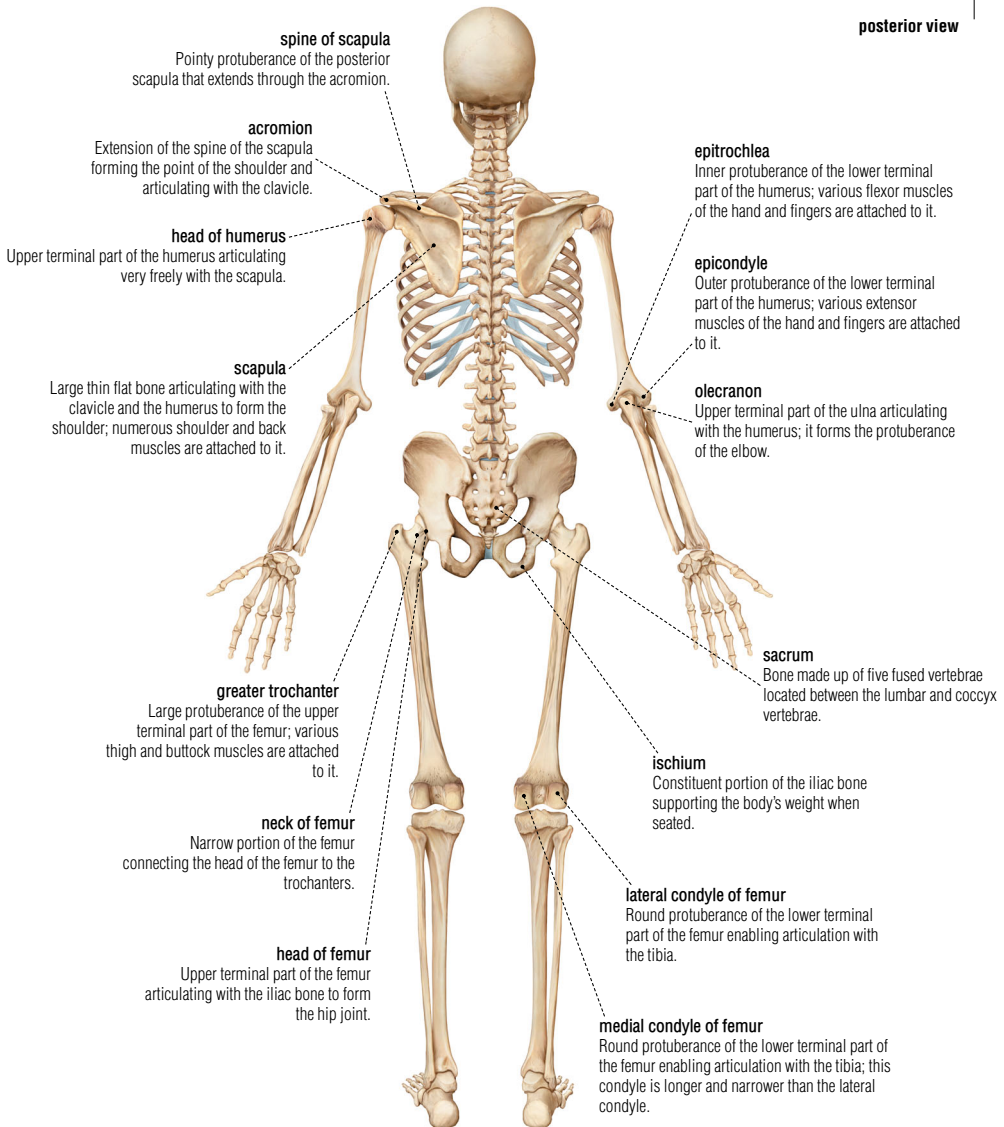
lower limbs

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

anterior view



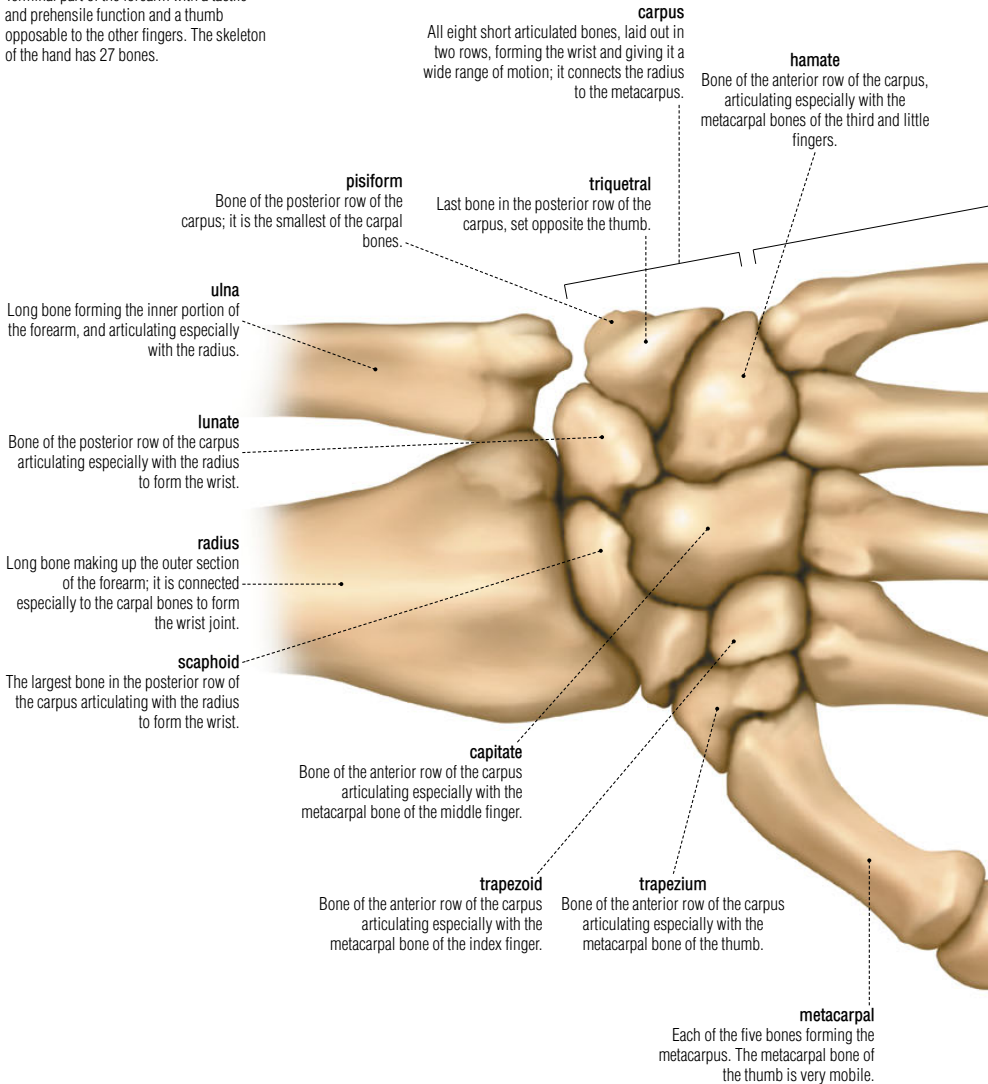
posterior view



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.

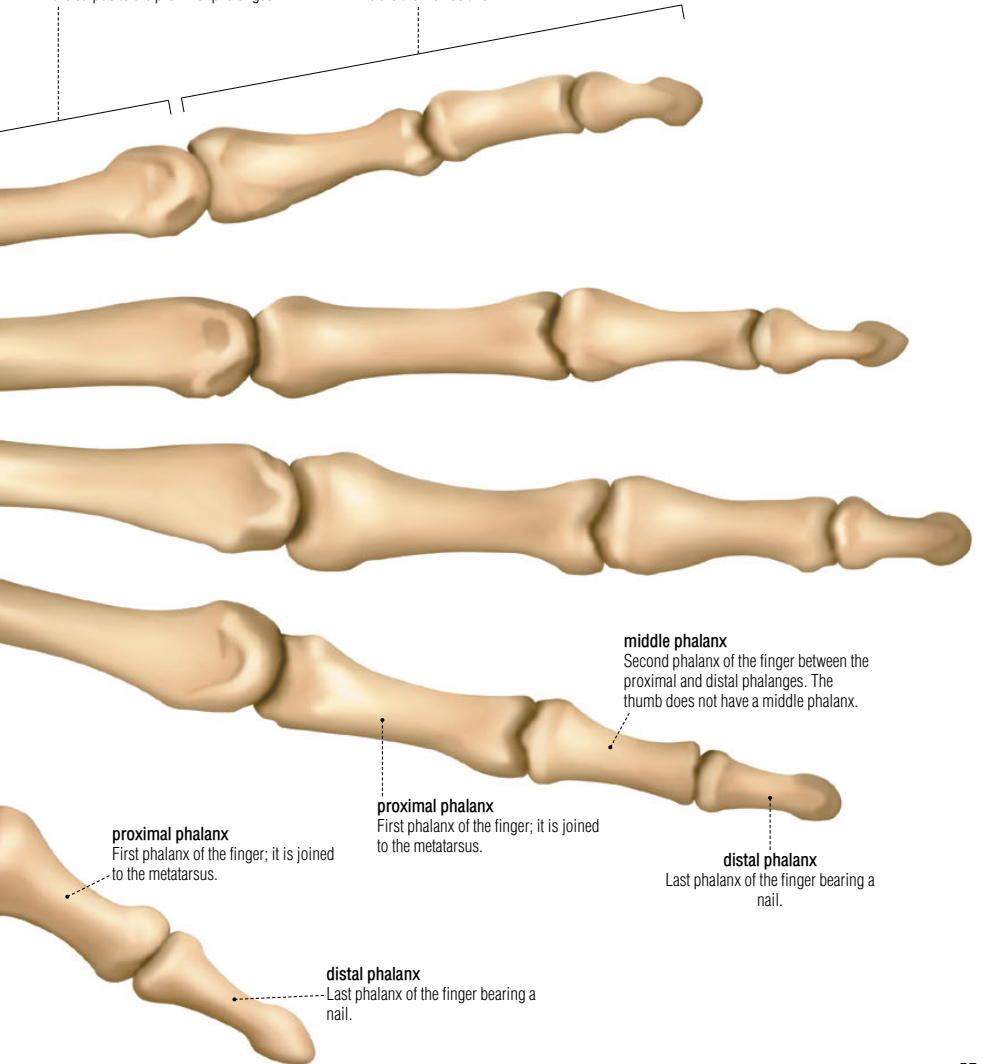


metacarpus

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

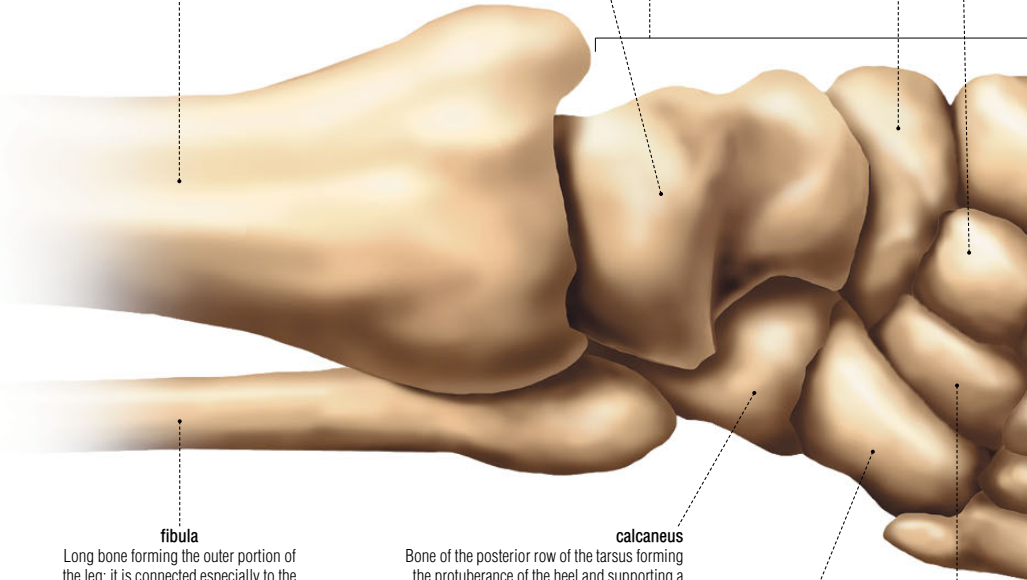
Bone of the posterior row of the tarsus forming the protuberance of the heel and supporting a large portion of the body's weight; the Achilles tendon is attached to it.

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.

1st cuneiform

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

proximal phalanx

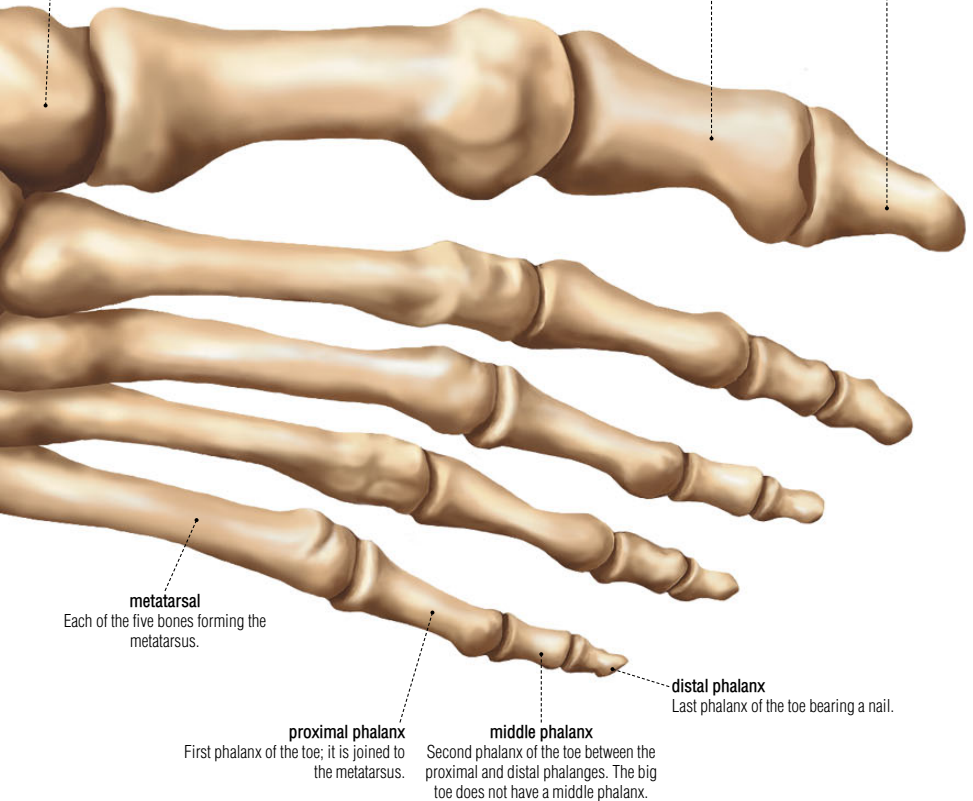
First phalanx of the toe; it is joined to the metatarsus.

phalanges

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

distal phalanx

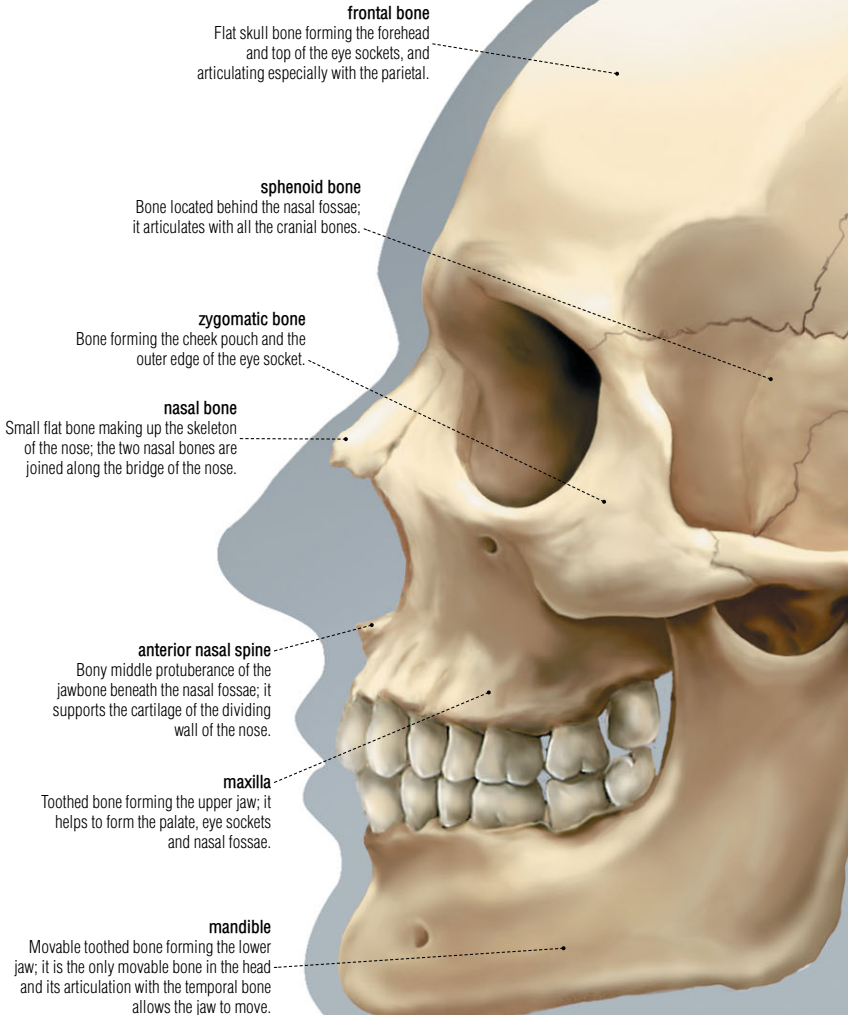
Last phalanx of the toe bearing a nail.

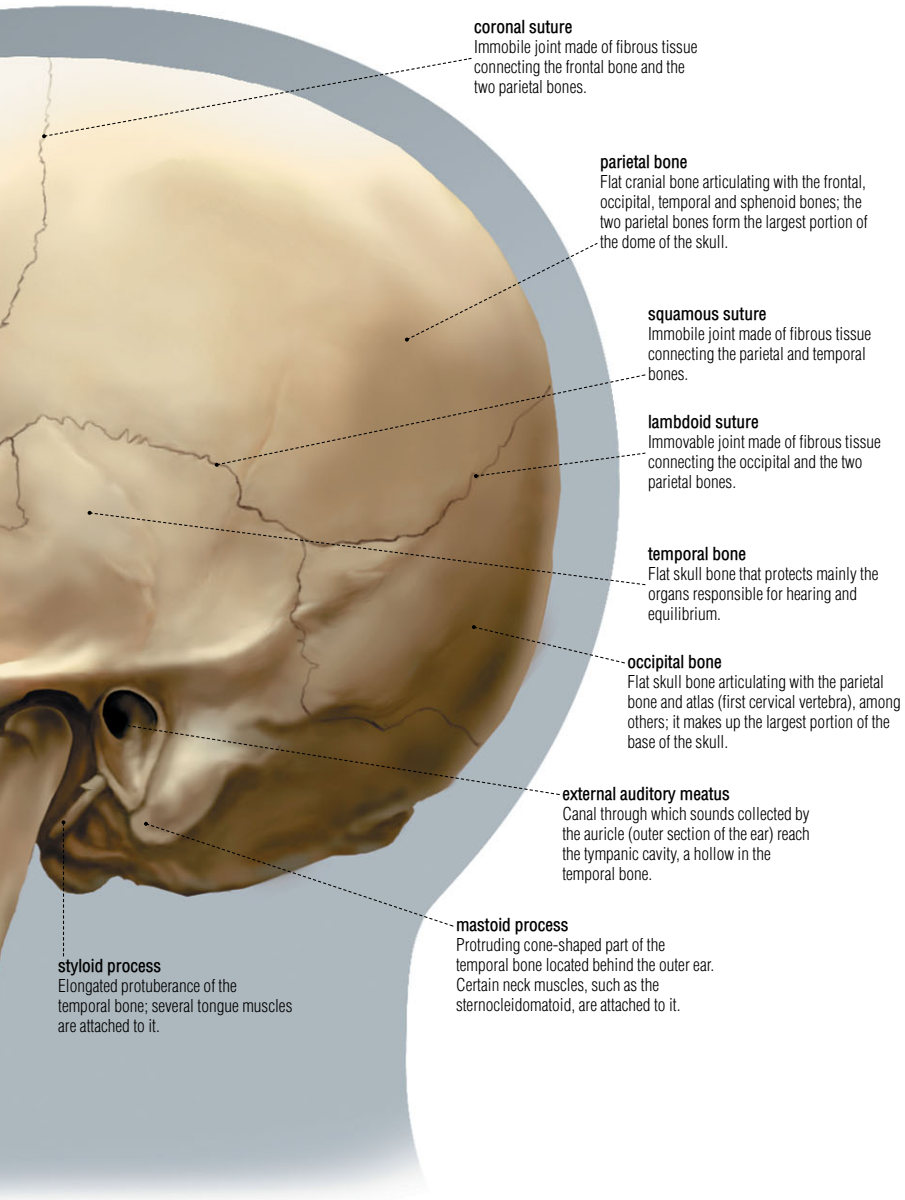


skeleton

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.

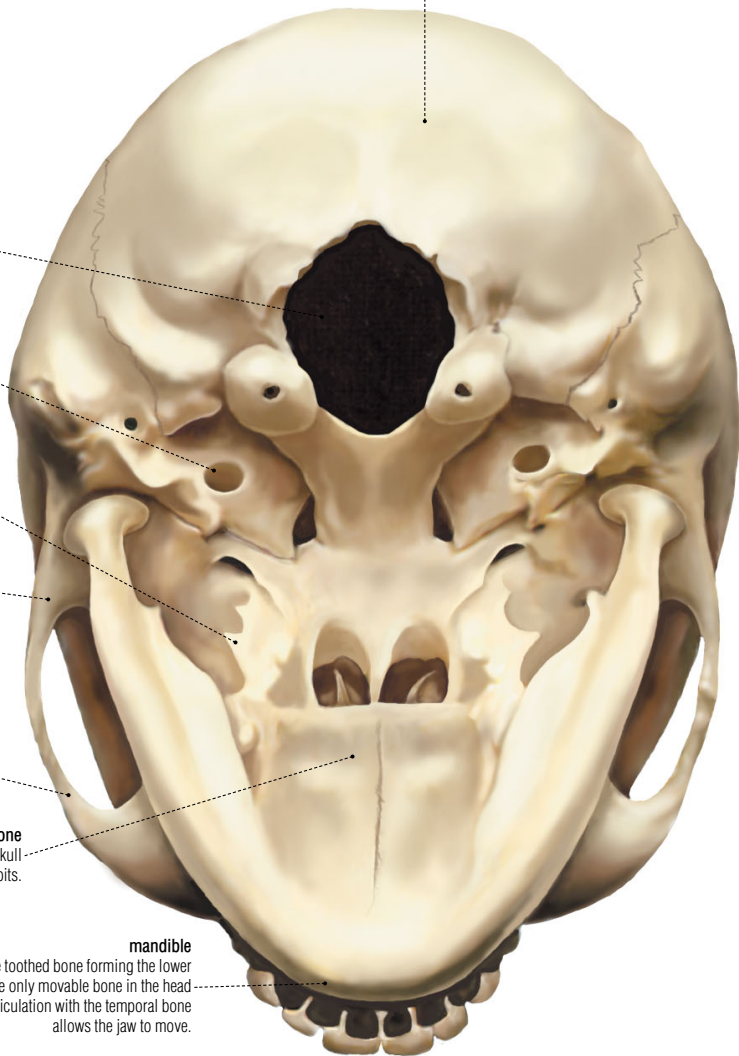
sphenoid bone
Bone located behind the nasal fossae; it articulates with all the cranial bones.

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.



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.

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.

frontal bone

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

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).

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

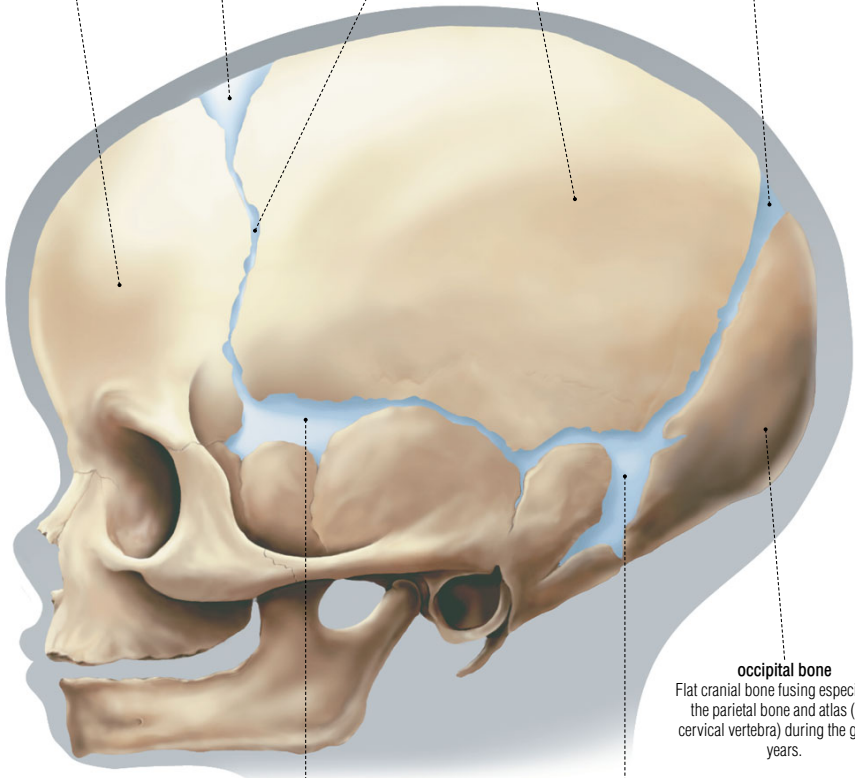
Flat cranial bone fusing especially to the parietal bone and atlas (first cervical vertebra) during the growth years.

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)

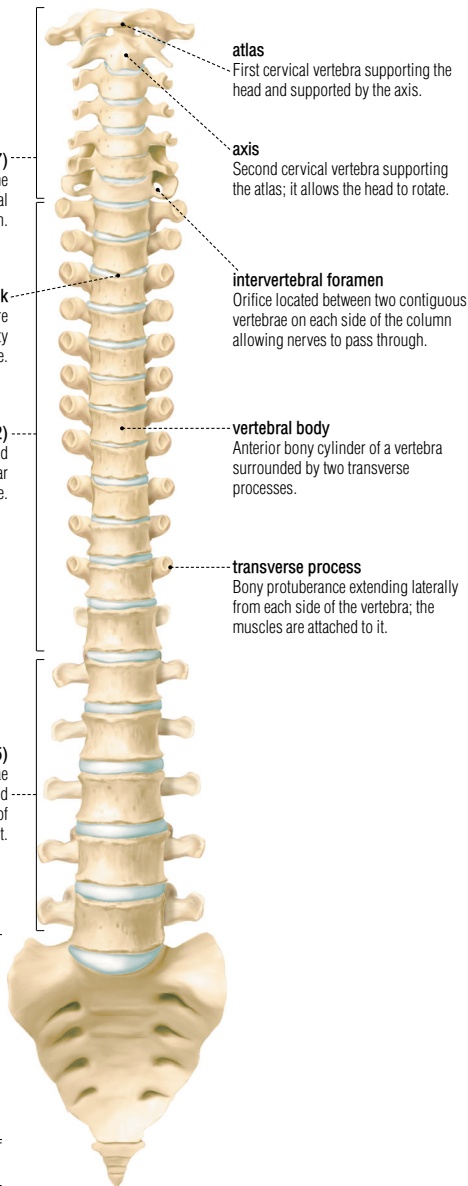
Bony part larger than the other vertebrae located between the dorsal vertebrae and the sacrum; it supports a major portion of the body's weight.

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

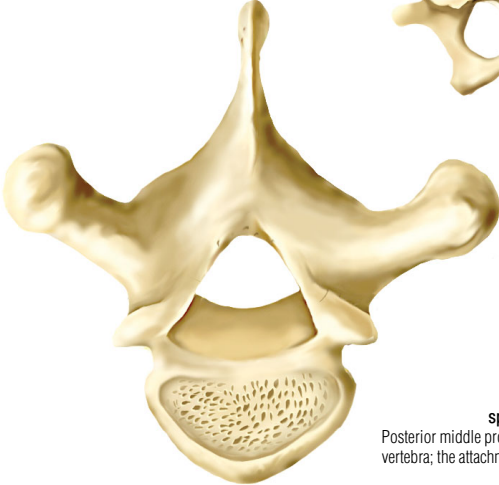
Anterior bony cylinder of a vertebra surrounded by two transverse processes.

transverse process

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

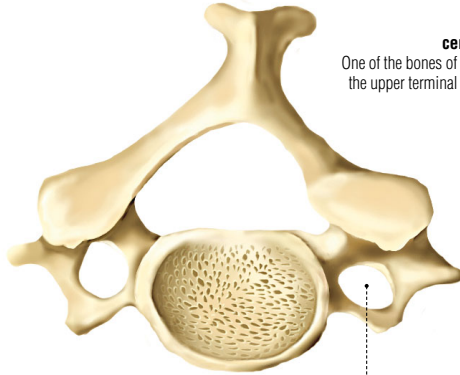
thoracic vertebra

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



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.

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

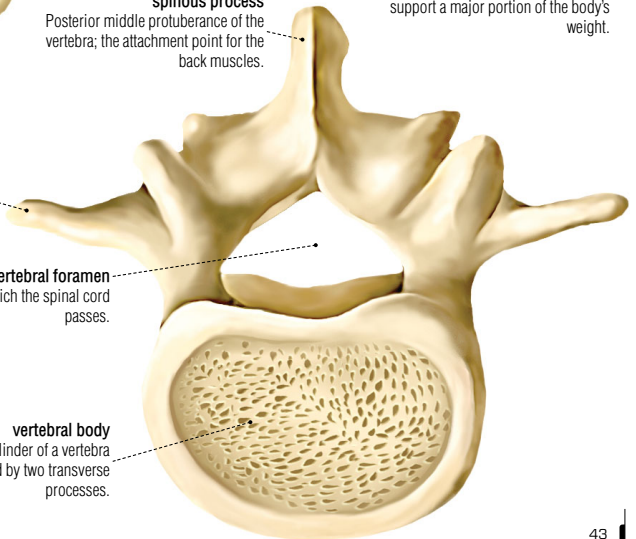
Bony protuberance extending laterally from each side of the vertebra; the muscles are attached to it.

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

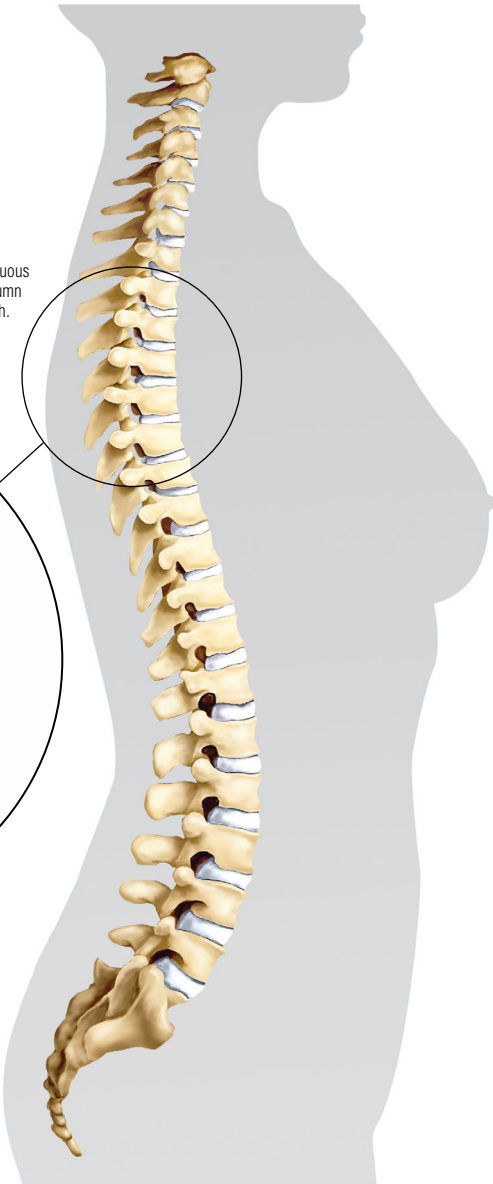
Small vertical projections on which the vertebrae are articulated.

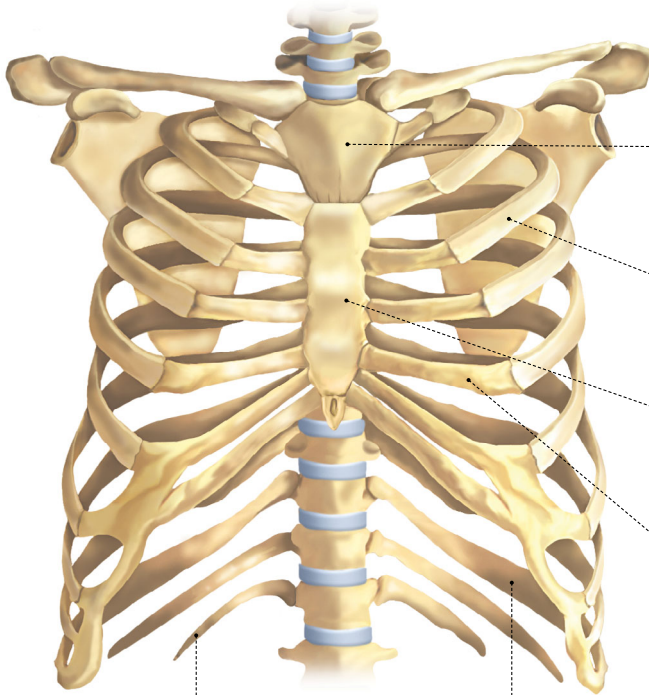
vertebral body

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)

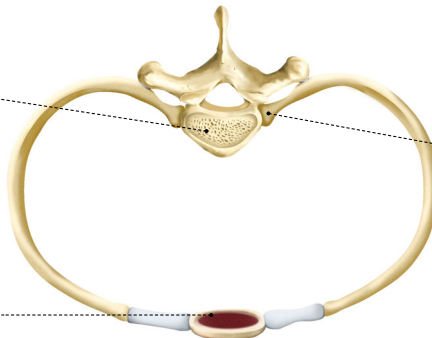
Thin curved bone articulating with the dorsal vertebrae at one end and remaining free at the other end.

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.

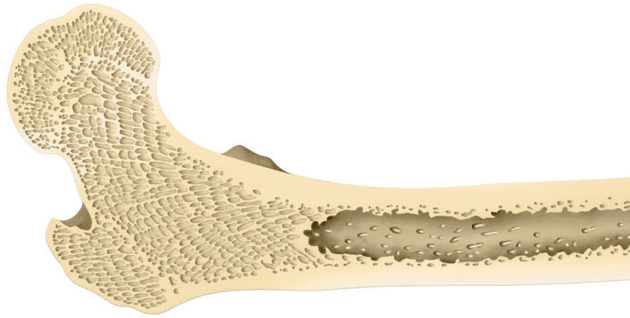
head of rib

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.

parts of a long bone



distal epiphysis

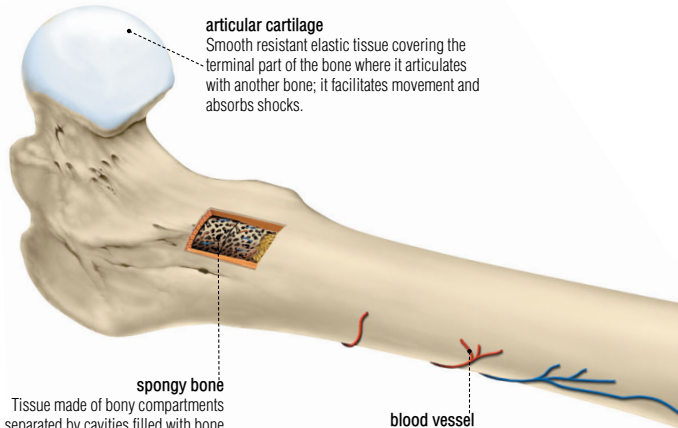
Enlarged terminal part of the bone, farthest from the center of the body, made of spongy tissue and articulating with neighboring bones.

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.

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).



articular cartilage

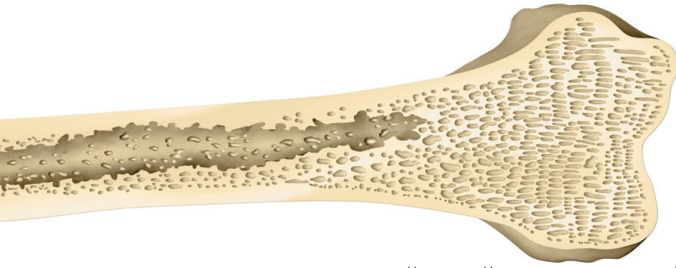
Smooth resistant elastic tissue covering the terminal part of the bone where it articulates with another bone; it facilitates movement and absorbs shocks.

spongy bone

Tissue made of bony compartments separated by cavities filled with bone marrow, blood vessels and nerves; this structure gives bones their lightness.

blood vessel

Channel in the bone through which the blood circulates, carrying the nutrients and mineral salts the bone requires.



diaphysis

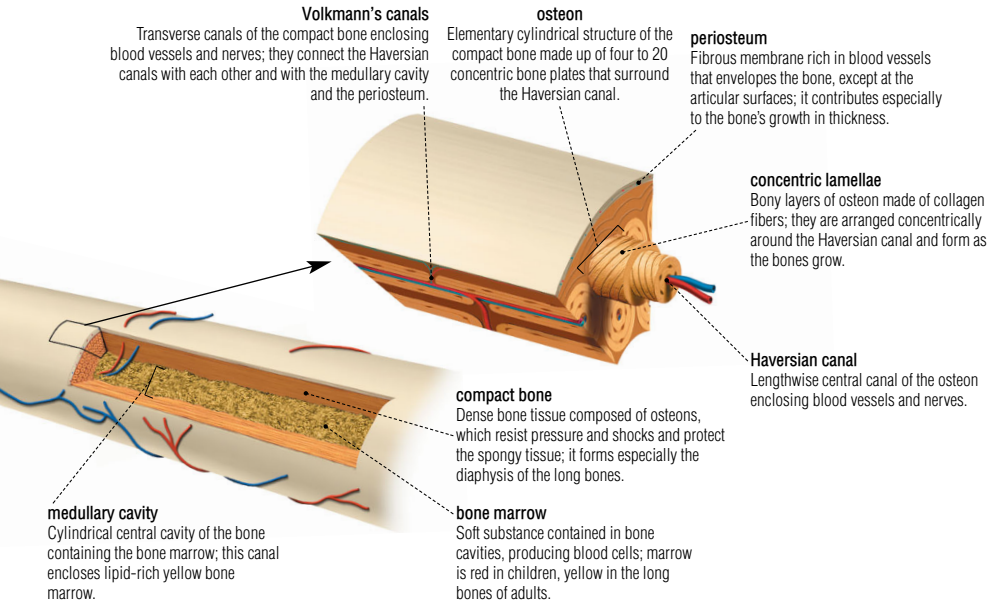
Elongated hollow central portion of the bone located between the metaphyses; it is made of compact tissue and encloses the medullary cavity.

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.



Volkman's canals

Transverse canals of the compact bone enclosing blood vessels and nerves; they connect the Haversian canals with each other and with the medullary cavity and the periosteum.

osteon

Elementary cylindrical structure of the compact bone made up of four to 20 concentric bone plates that surround the Haversian canal.

periosteum

Fibrous membrane rich in blood vessels that envelops the bone, except at the articular surfaces; it contributes especially to the bone's growth in thickness.

concentric lamellae

Bony layers of osteon made of collagen fibers; they are arranged concentrically around the Haversian canal and form as the bones grow.

Haversian canal

Lengthwise central canal of the osteon enclosing blood vessels and nerves.

compact bone

Dense bone tissue composed of osteons, which resist pressure and shocks and protect the spongy tissue; it forms especially the diaphysis of the long bones.

bone marrow

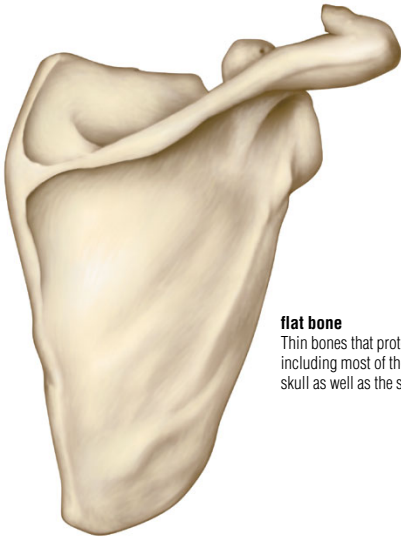
Soft substance contained in bone cavities, producing blood cells; marrow is red in children, yellow in the long bones of adults.

medullary cavity

Cylindrical central cavity of the bone containing the bone marrow; this canal encloses lipid-rich yellow bone marrow.

types of bones

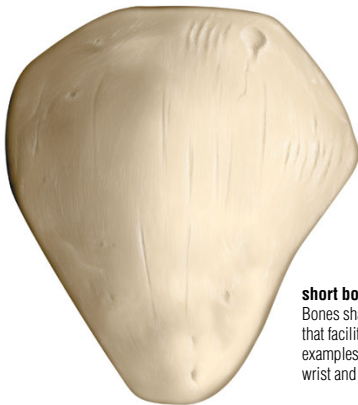
Bones: rigid structures connected by joints to which muscles are attached. The skeleton has more than 200 bones divided into four major groups.

**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.

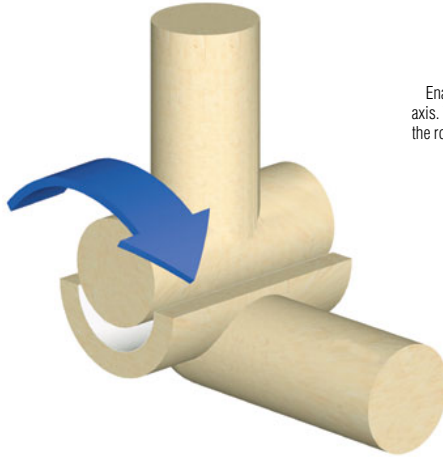


types of synovial joints

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**

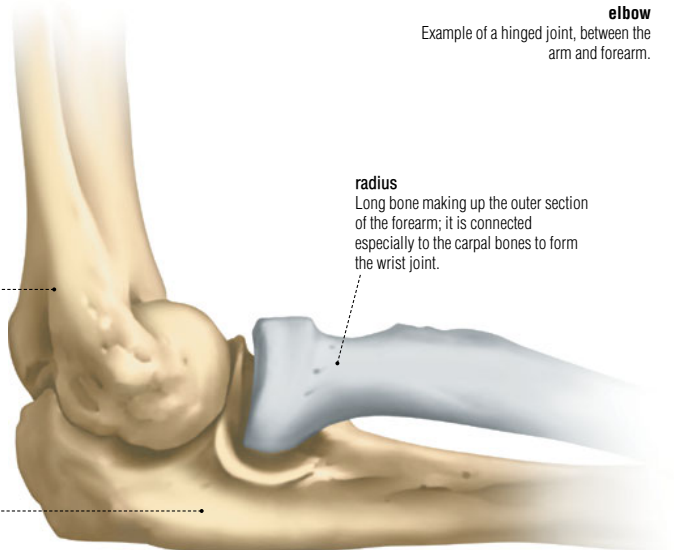
Example of a hinged joint, between the arm and forearm.

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

radius

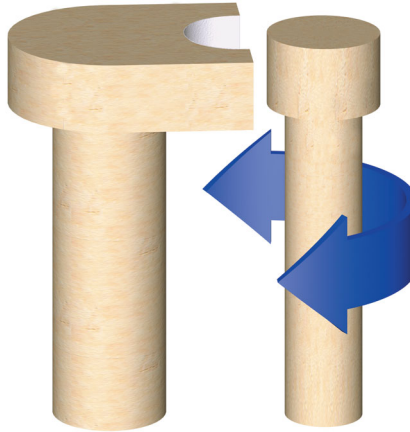
Long bone making up the outer section of the forearm; it is connected especially to the carpal bones to form the wrist joint.

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

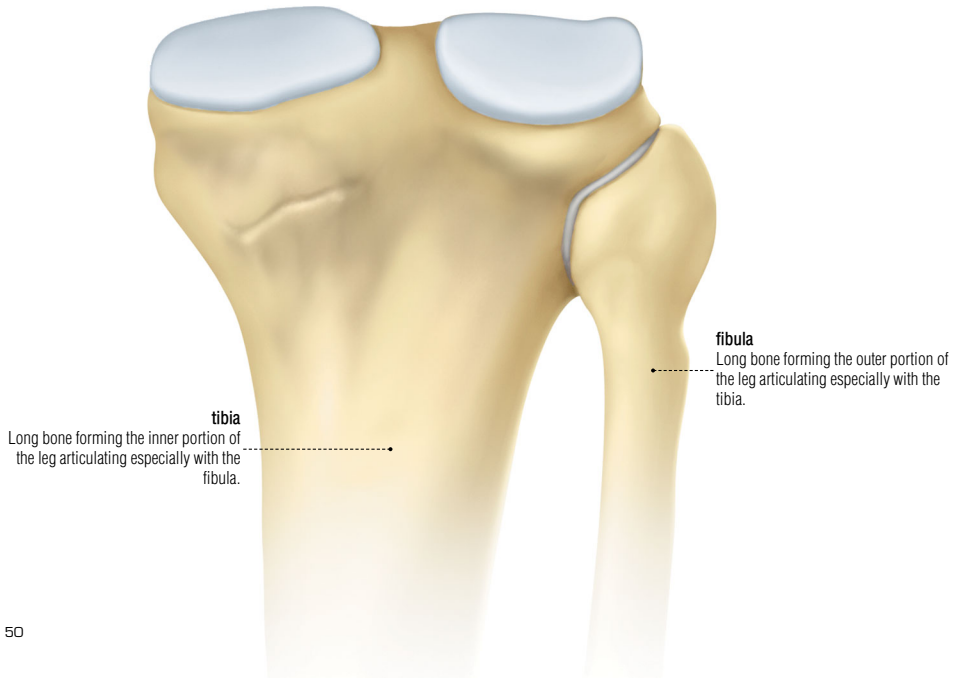


pivot joint

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.

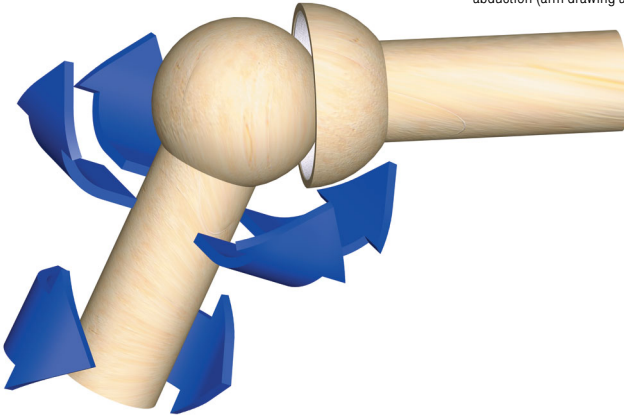
**leg**

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

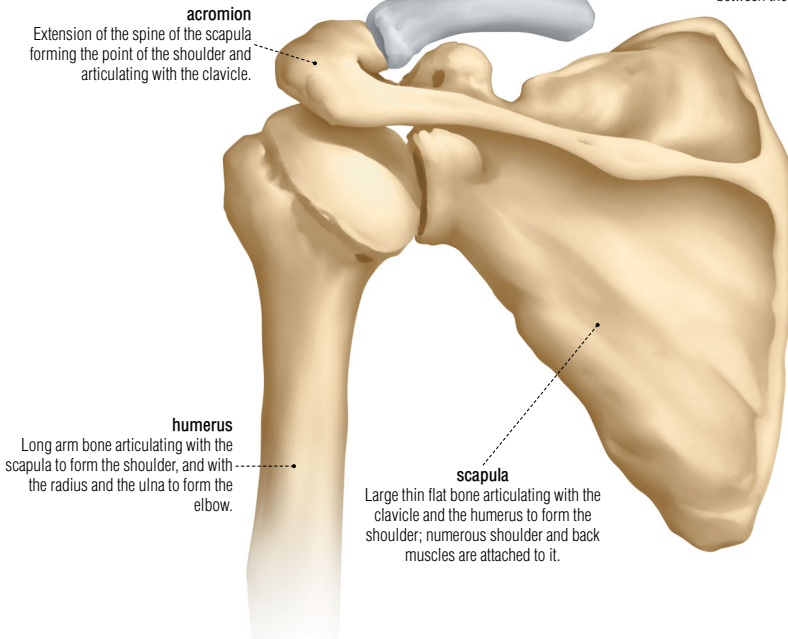


ball-and-socket joint

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).

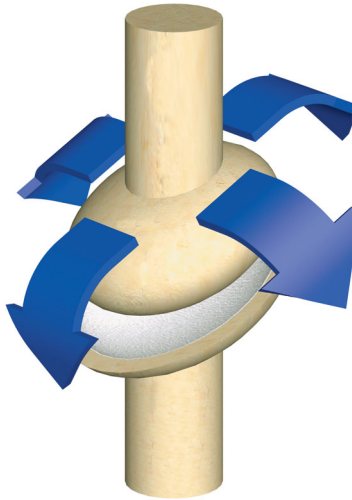
**shoulder**

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

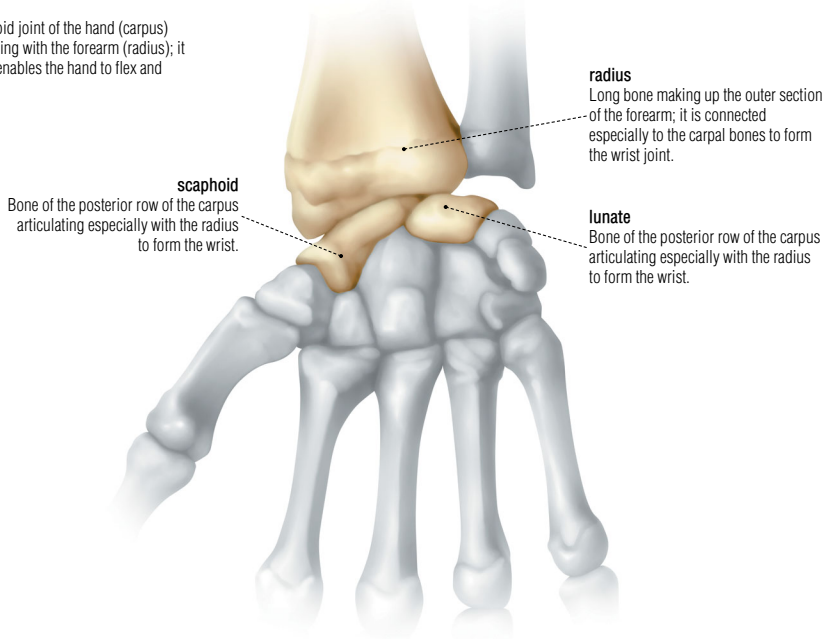


condyloid joint

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.

**radius**

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

scaphoid

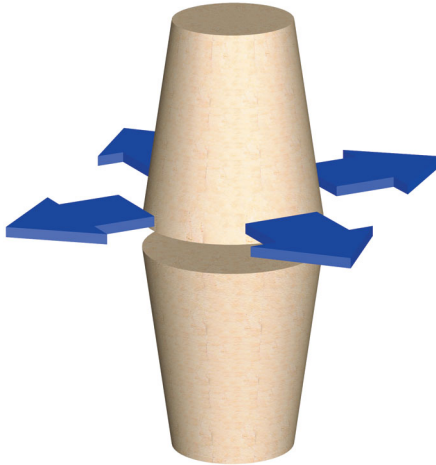
Bone of the posterior row of the carpus articulating especially with the radius to form the wrist.

lunate

Bone of the posterior row of the carpus articulating especially with the radius to form the wrist.

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).

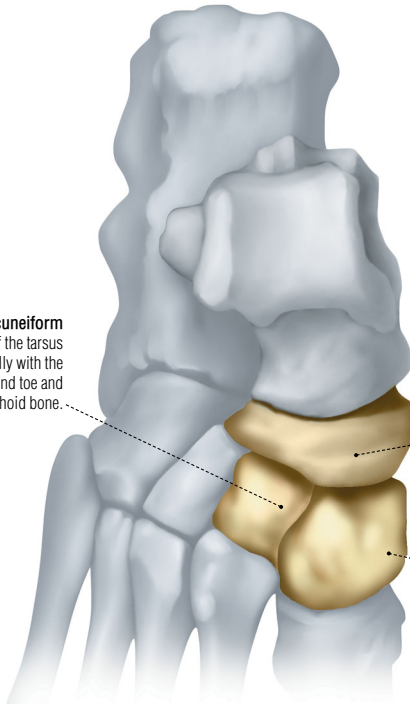
**tarsus**

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.

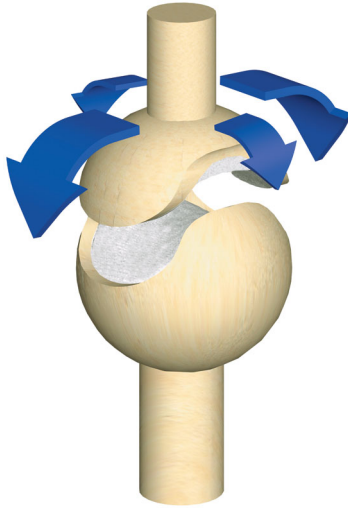
navicular
Bone of the posterior row of the tarsus articulating especially with the talus and the three cuneiforms.

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

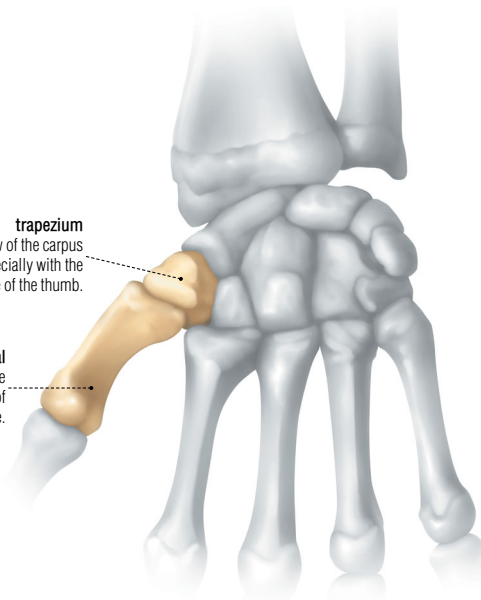
Resembles the condyloid joint but allows a wider range of motion; this type of joint is rare.

**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.

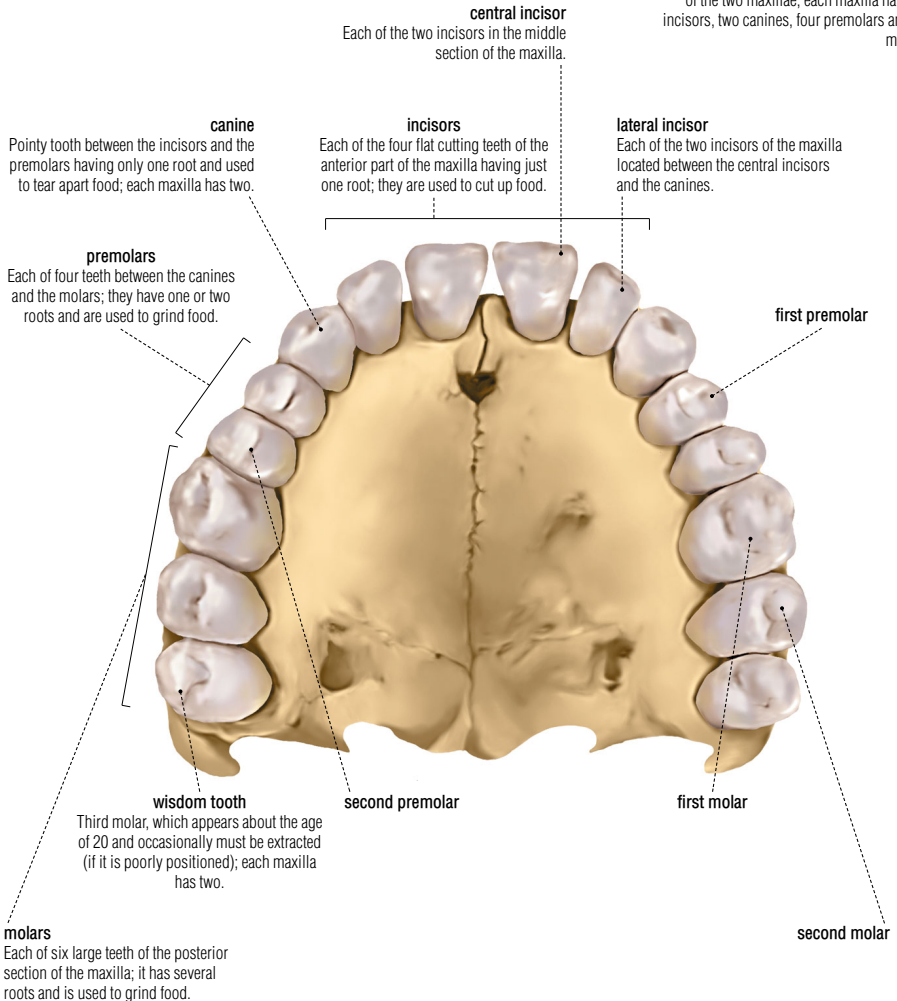
metacarpal
Each of the five bones forming the metacarpus. The metacarpal bone of the thumb is very mobile.



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

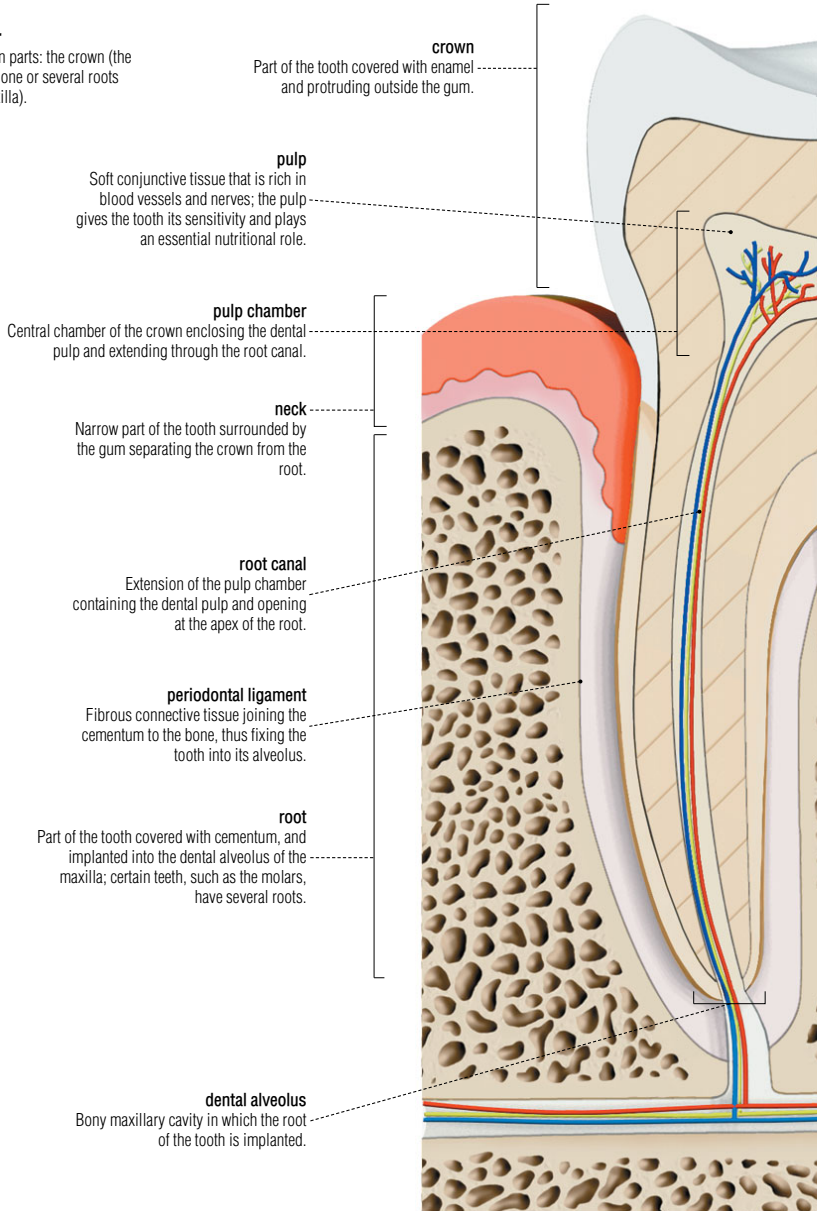
human denture

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.



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).



crown

Part of the tooth covered with enamel and protruding outside the gum.

pulp

Soft conjunctive tissue that is rich in blood vessels and nerves; the pulp gives the tooth its sensitivity and plays an essential nutritional role.

pulp chamber

Central chamber of the crown enclosing the dental pulp and extending through the root canal.

neck

Narrow part of the tooth surrounded by the gum separating the crown from the root.

root canal

Extension of the pulp chamber containing the dental pulp and opening at the apex of the root.

periodontal ligament

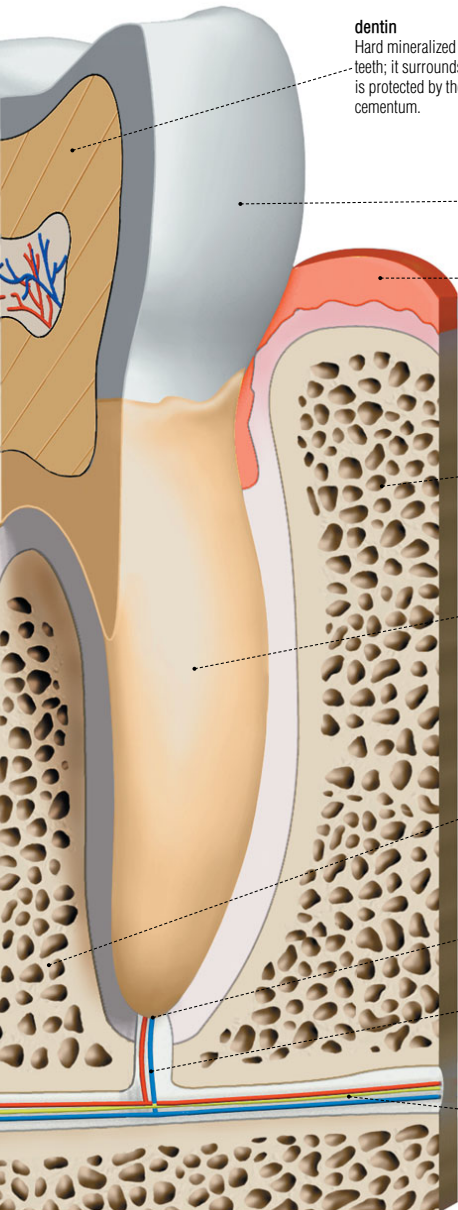
Fibrous connective tissue joining the cementum to the bone, thus fixing the tooth into its alveolus.

root

Part of the tooth covered with cementum, and implanted into the dental alveolus of the maxilla; certain teeth, such as the molars, have several roots.

dental alveolus

Bony maxillary cavity in which the root of the tooth is implanted.

**dentin**

Hard mineralized tissue forming the teeth; it surrounds the dental pulp and is protected by the enamel and cementum.

enamel

Highly mineralized tissue covering and protecting the dentin of the crown; it is the hardest tissue in the organism.

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.

maxillary bone

Jawbone into which the teeth are inserted.

cementum

Hard mineralized tissue comparable to bone covering and protecting the dentin of the root.

alveolar bone

Section of the maxilla bone surrounding the dental alveola; its presence depends on the presence of teeth: it forms and disappears when they do.

apex

Terminal part of the dental root whose opening (apical foramen) allows blood vessels and nerves to pass through.

apical foramen

Narrow orifice located at the terminal part of the apex allowing blood vessels and nerves to pass into the tooth.

plexus of nerves

Grouping of blood vessels and nerves that enters the pulp through the apical foramen to nourish the tooth.

blood circulation

Propelled by the contractions of the heart, blood travels through the blood vessels of the body bringing oxygen and nutrients and removing waste.

principal arteries

The arteries (except for the pulmonary arteries) distribute oxygenated blood throughout the body.

common carotid artery

Branch of the aorta flowing to the head and upper portion of the neck; it is divided into internal and external carotid arteries.

arch of aorta

Second segment of the aorta, which branches into the arteries flowing to the head and upper limbs; with the ascending aorta, it forms the arch of the aorta.

subclavian artery

Main artery of the upper limb passing through the clavicle and extending through the axillary artery; it also flows to the lower section of the neck.

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.

axillary artery

Artery crossing the hollow of the armpit and extending through the brachial artery; it also circulates through the thoracic wall and the shoulder.

brachial artery

Artery flowing along the humerus and supplying the flexor muscles of the arm; it divides into the radial and ulnar arteries at the bend in the elbow.

renal artery

Branch of the abdominal aorta circulating blood to the kidney.

superior mesenteric artery

Branch of the abdominal aorta that supplies blood to the ascending colon and half of the transverse colon.

common iliac artery

Branch of the abdominal aorta that circulates blood to the pelvis and the lower limbs; it divides into the internal and external iliac arteries.

abdominal aorta

Fourth segment of the aorta circulating to all the organs and to the walls of the abdomen; it branches into the common iliac arteries.

internal iliac artery

Branch of the common iliac artery flowing to the pelvis, the genital organs and the inner thigh.

femoral artery

Main artery of the lower limb; it is a continuation of the external iliac artery and runs along the femur.

anterior tibial artery

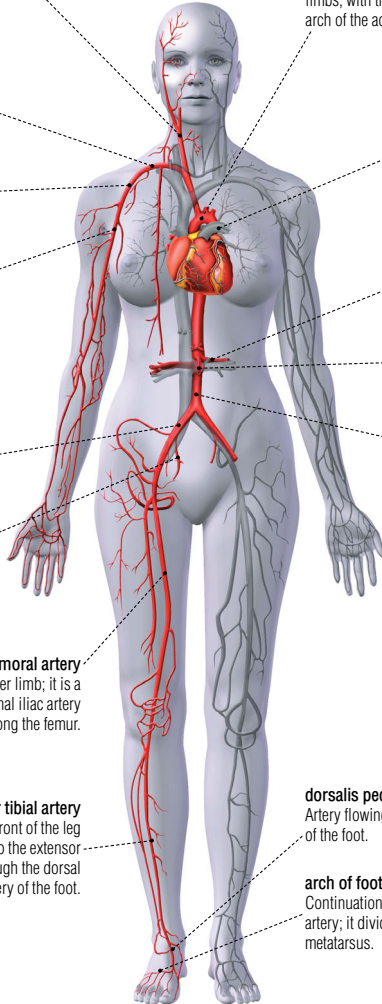
Artery running along the front of the leg and supplying blood to the extensor muscles; it extends through the dorsal artery of the foot.

dorsalis pedis artery

Artery flowing to the ankle and the back of the foot.

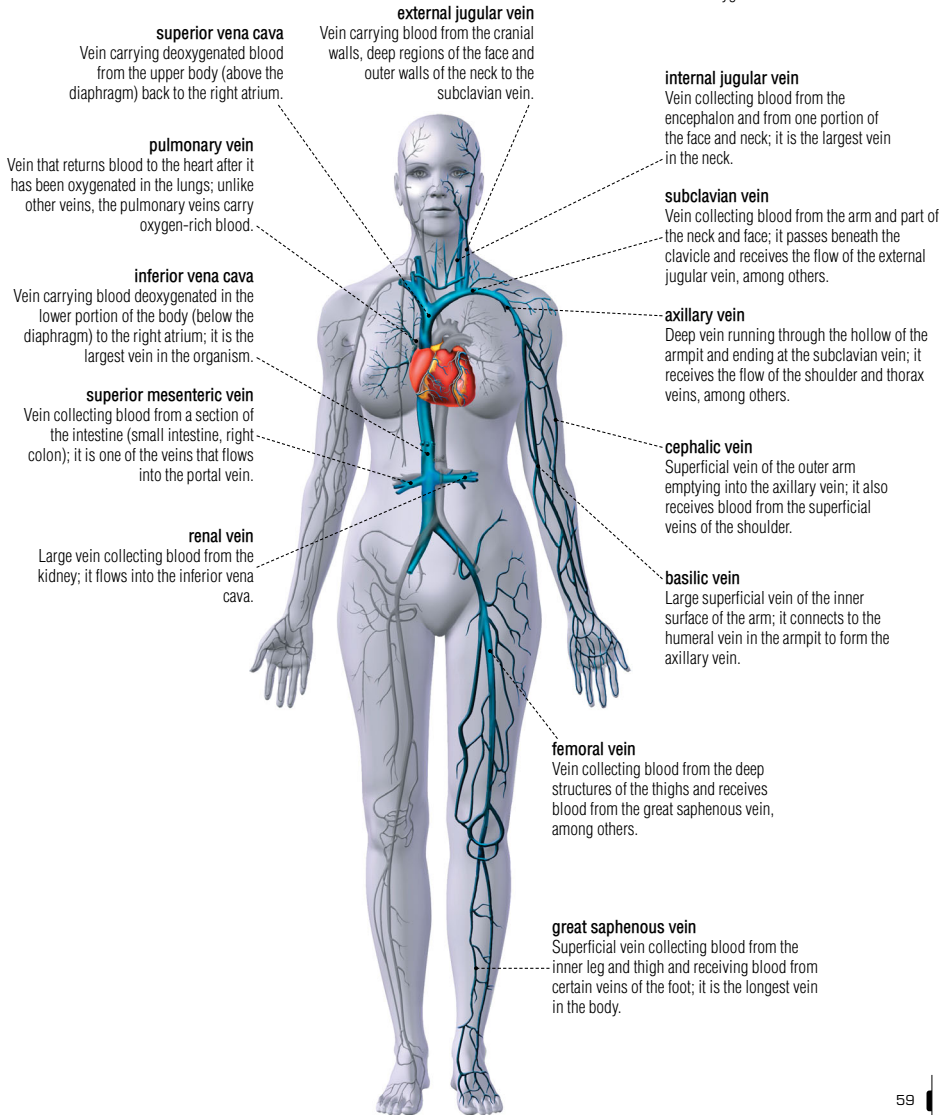
arch of foot artery

Continuation of the dorsalis pedis artery; it divides into the arteries of the metatarsus.



principal veins

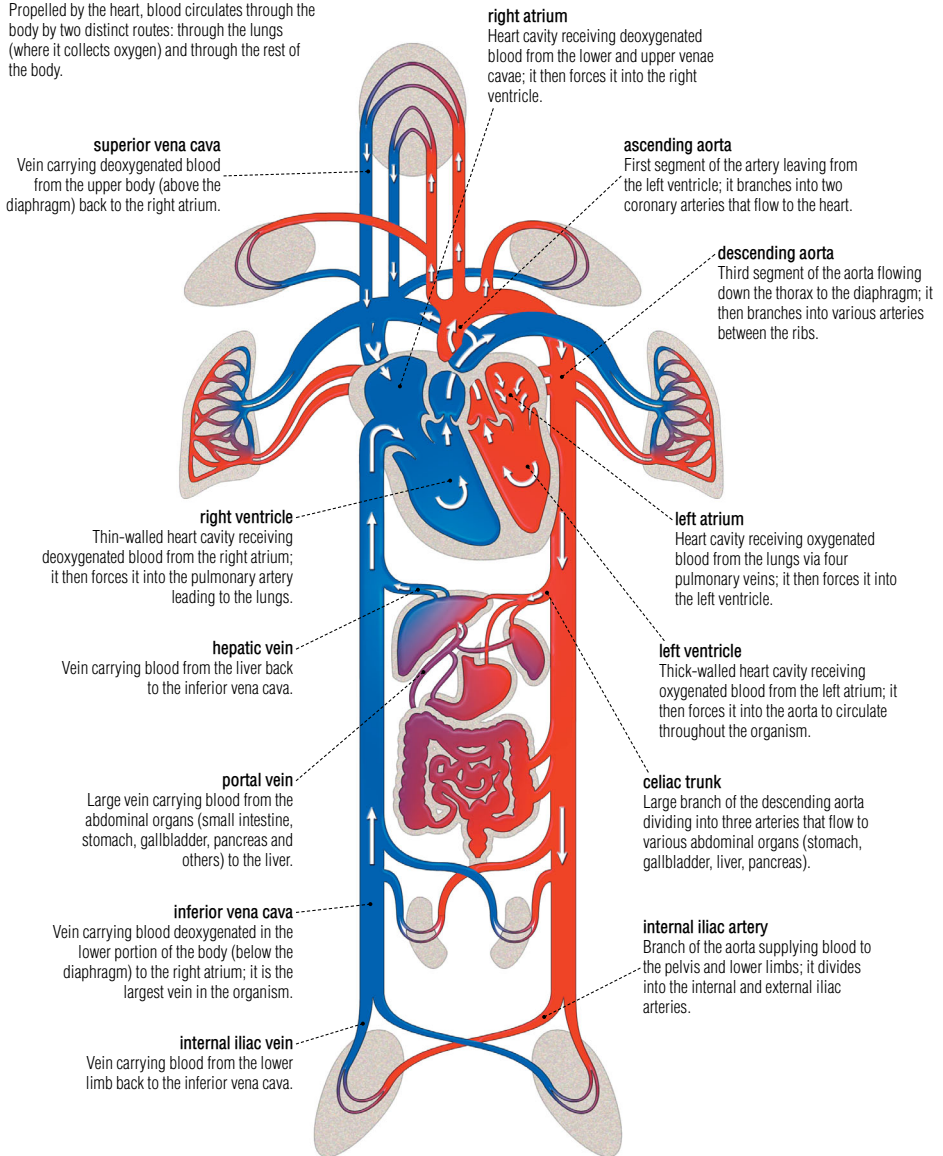
The veins (except for the pulmonary veins) carry deoxygenated blood toward the heart.



blood circulation

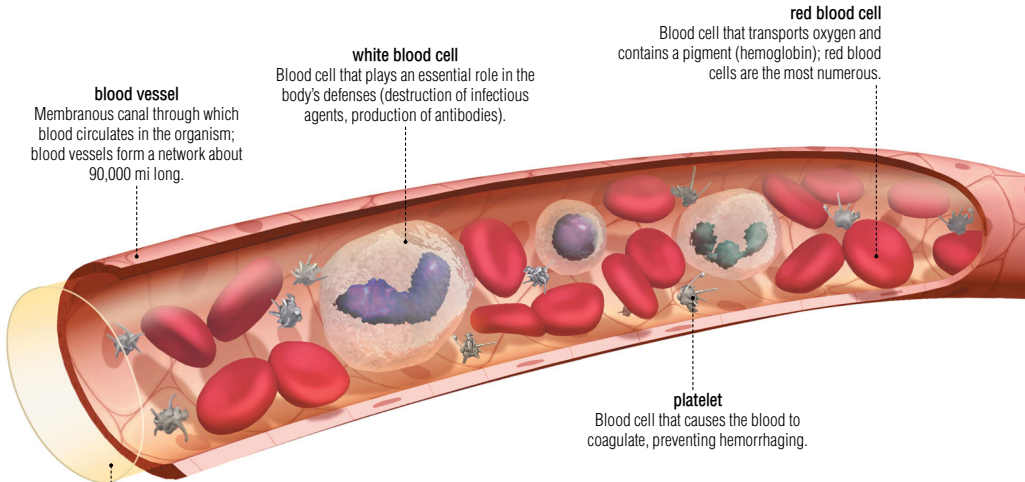
schema of circulation

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

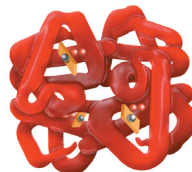
Blood cell that transports oxygen and contains a pigment (hemoglobin); red blood cells are the most numerous.

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.

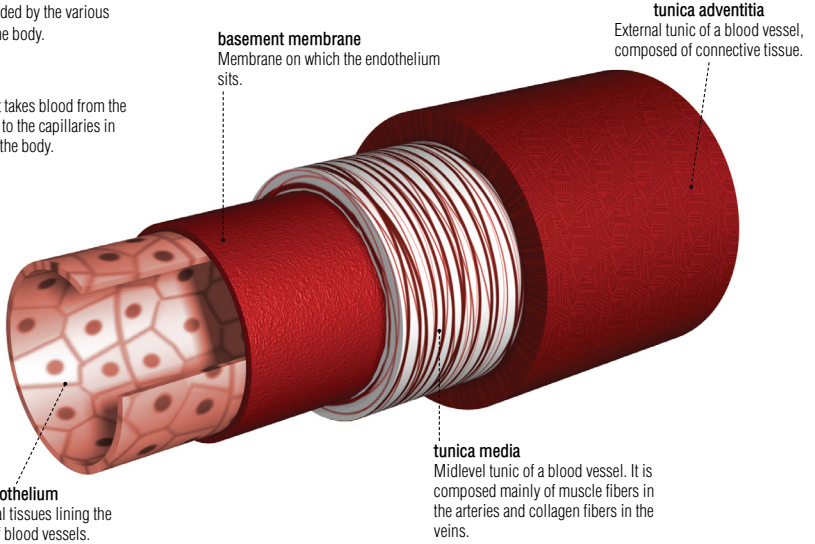
blood circulation

blood vessels

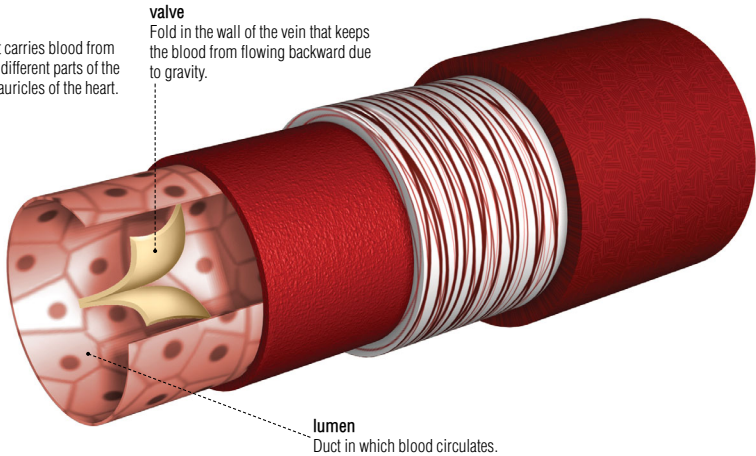
Ducts through which blood circulates, also carrying the nutritive elements and minerals needed by the various components of the body.

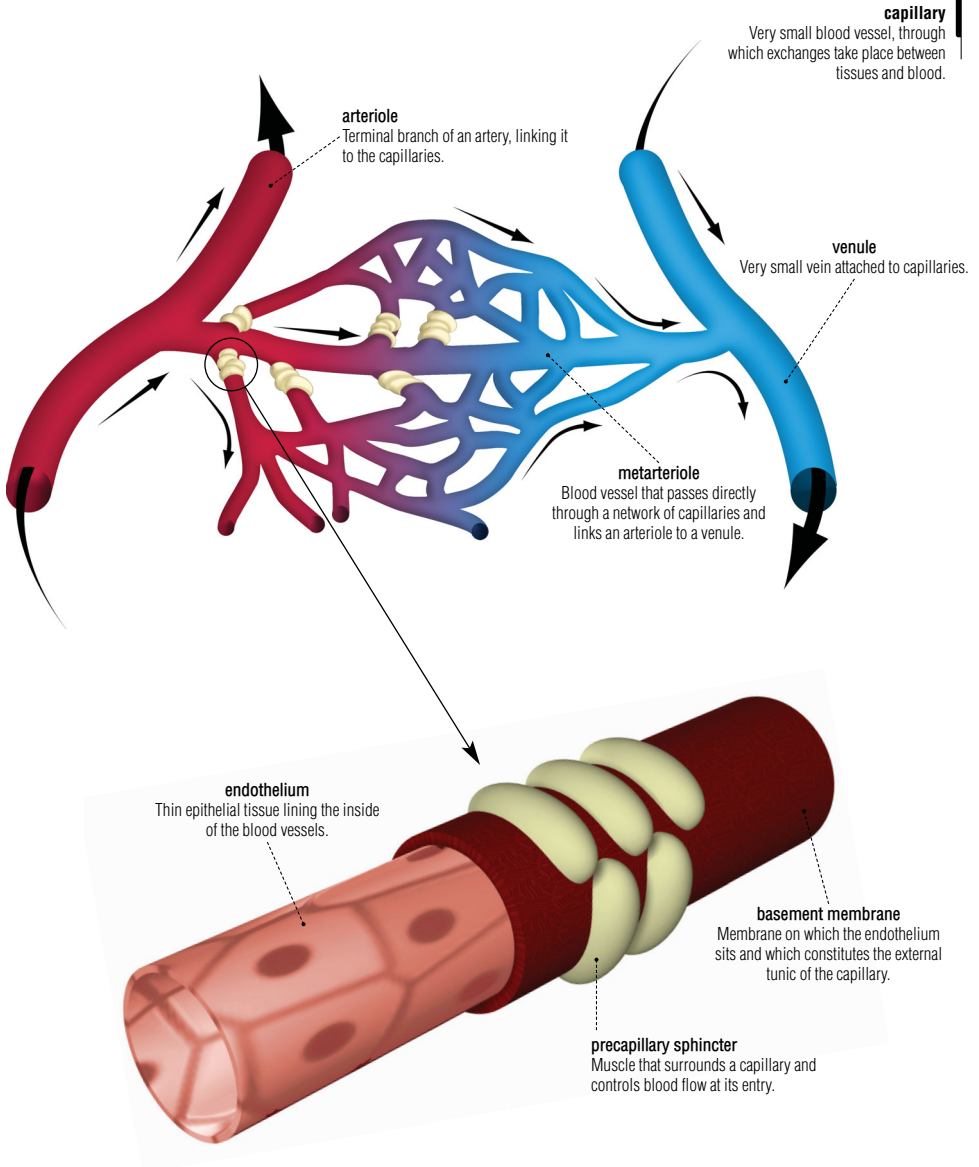
artery

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

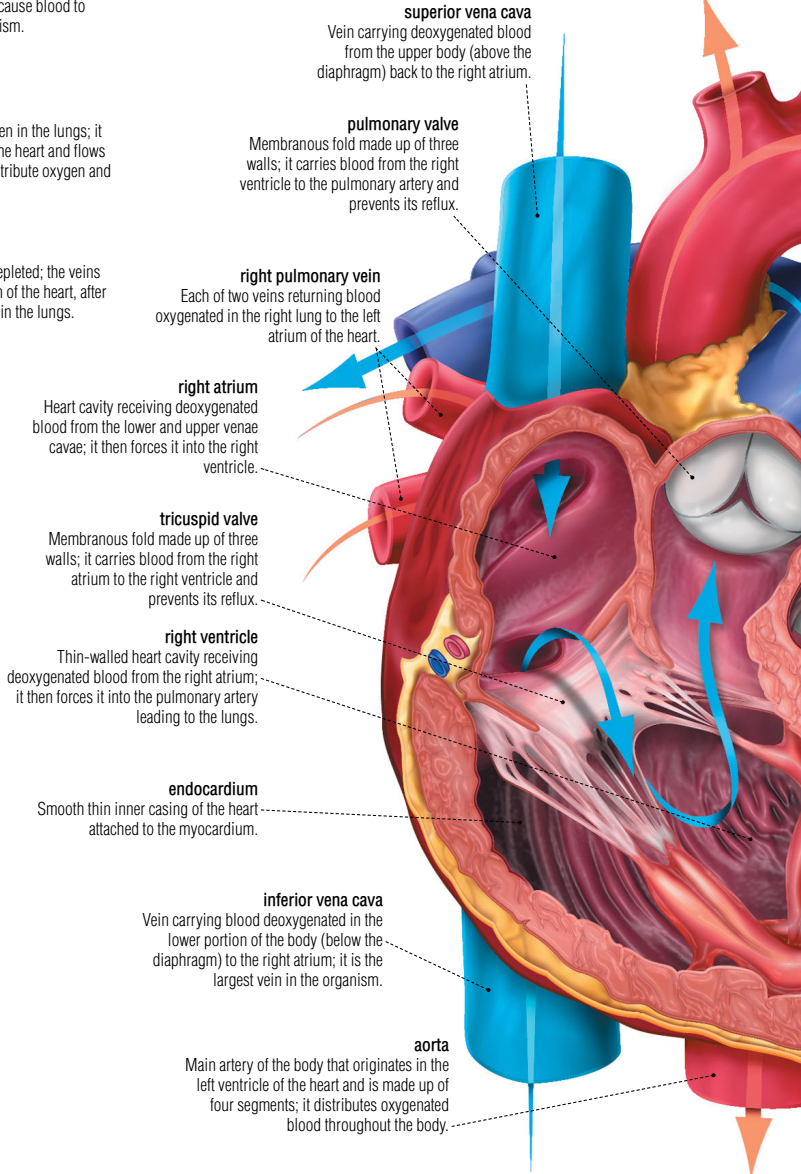
Muscular organ divided into four chambers; its regular rhythmic contractions cause blood to circulate throughout the organism.

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.

**superior vena cava**

Vein carrying deoxygenated blood from the upper body (above the diaphragm) back to the right atrium.

pulmonary valve

Membranous fold made up of three walls; it carries blood from the right ventricle to the pulmonary artery and prevents its reflux.

right pulmonary vein

Each of two veins returning blood oxygenated in the right lung to the left atrium of the heart.

right atrium

Heart cavity receiving deoxygenated blood from the lower and upper vena cavae; it then forces it into the right ventricle.

tricuspid valve

Membranous fold made up of three walls; it carries blood from the right atrium to the right ventricle and prevents its reflux.

right ventricle

Thin-walled heart cavity receiving deoxygenated blood from the right atrium; it then forces it into the pulmonary artery leading to the lungs.

endocardium

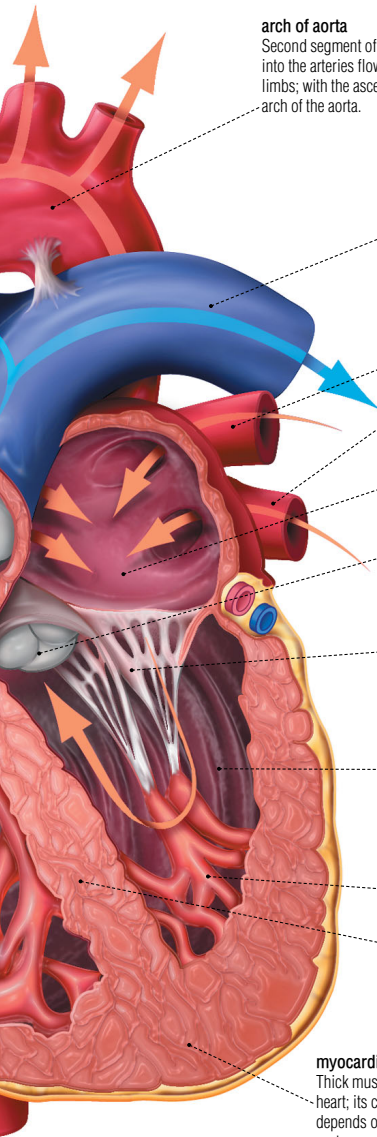
Smooth thin inner casing of the heart attached to the myocardium.

inferior vena cava

Vein carrying blood deoxygenated in the lower portion of the body (below the diaphragm) to the right atrium; it is the largest vein in the organism.

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.

**arch of aorta**

Second segment of the aorta, which branches into the arteries flowing to the head and upper limbs; with the ascending aorta, it forms the arch of the aorta.

pulmonary trunk

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

left pulmonary vein

Each of two veins returning blood, oxygenated in the left lung, to the left atrium of the heart.

left atrium

Heart cavity receiving oxygenated blood from the lungs via four pulmonary veins; it then forces it into the left ventricle.

aortic valve

Membranous fold made up of three walls; it carries blood from the left ventricle to the aorta and prevents its reflux.

mitral valve

Membranous fold made up of two walls; it carries blood from the left atrium to the left ventricle and prevents its reflux.

left ventricle

Thick-walled heart cavity receiving oxygenated blood from the left atrium; it then forces it into the aorta to circulate throughout the organism.

papillary muscle

Internal ventricular muscle restraining the mitral or tricuspid valve and preventing it from being pushed back into the atrium during contraction of the ventricle.

interventricular septum

Mostly muscular partition separating the right and left ventricles of the heart.

myocardium

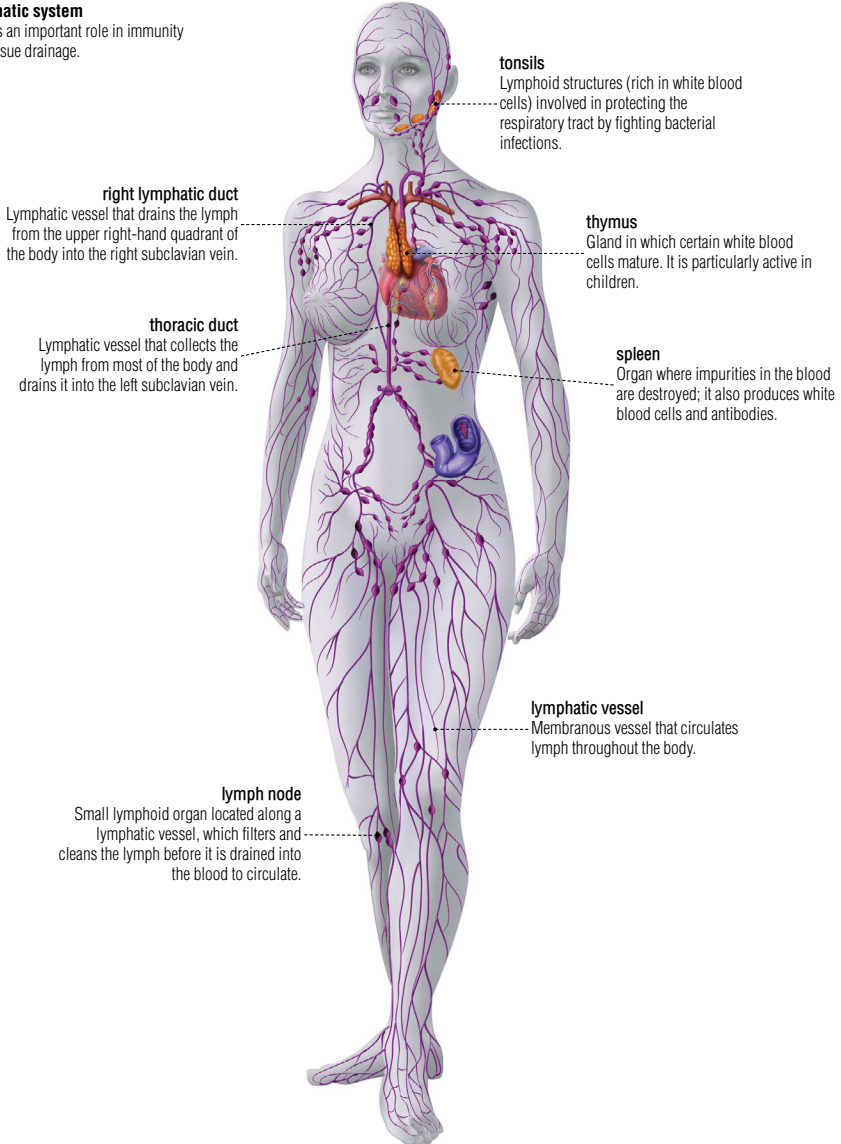
Thick muscular casing around the heart; its contraction is involuntary and depends on the autonomous nervous system.

immune system

It defends the body against external stresses.

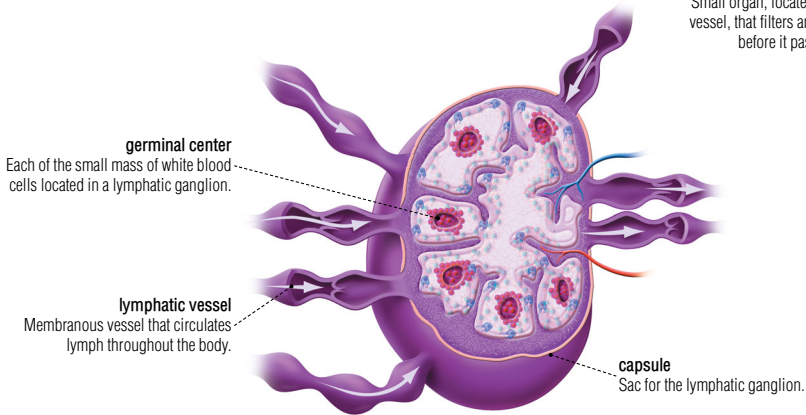
lymphatic system

It plays an important role in immunity and tissue drainage.

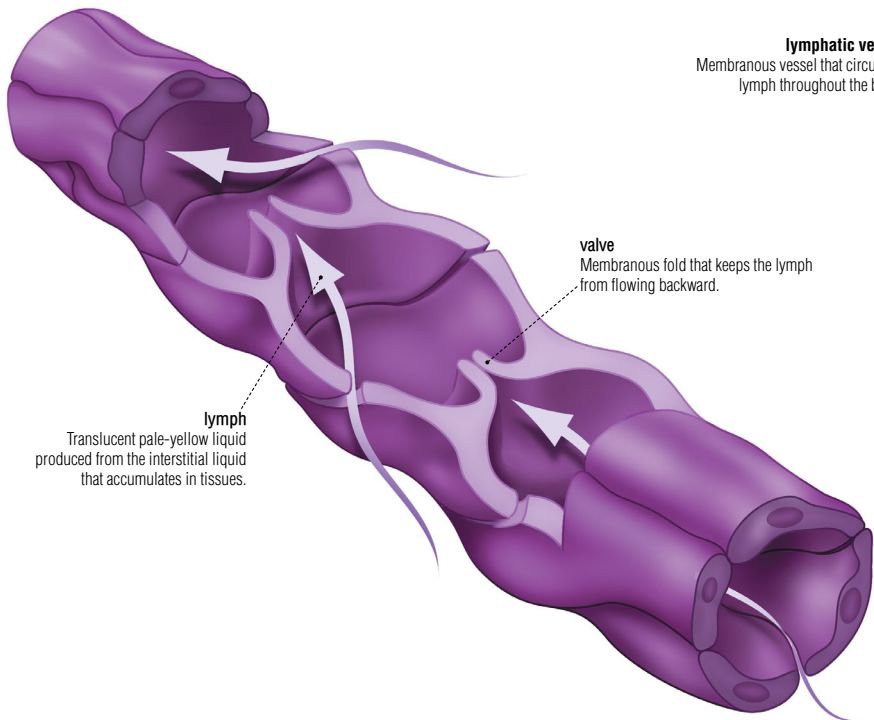


lymph node

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

**lymphatic vessel**

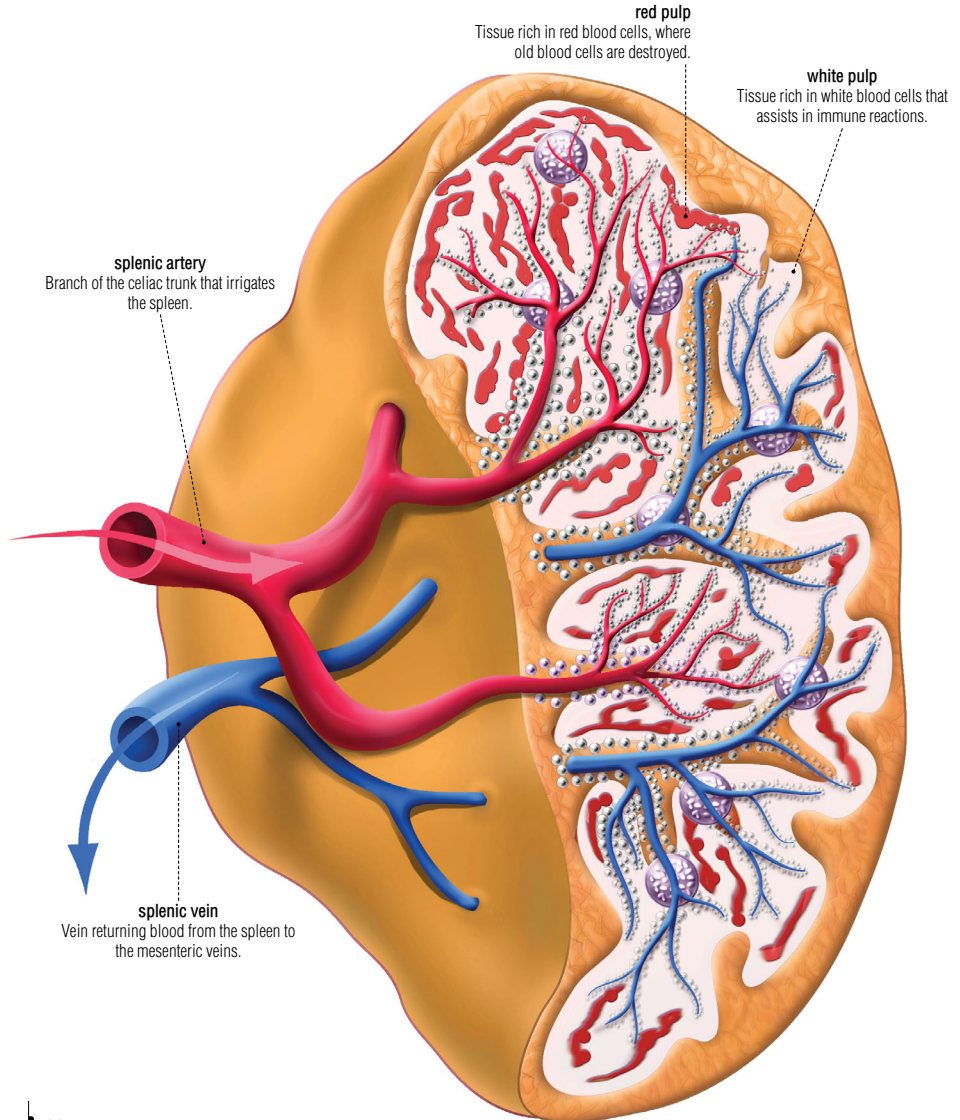
Membranous vessel that circulates lymph throughout the body.



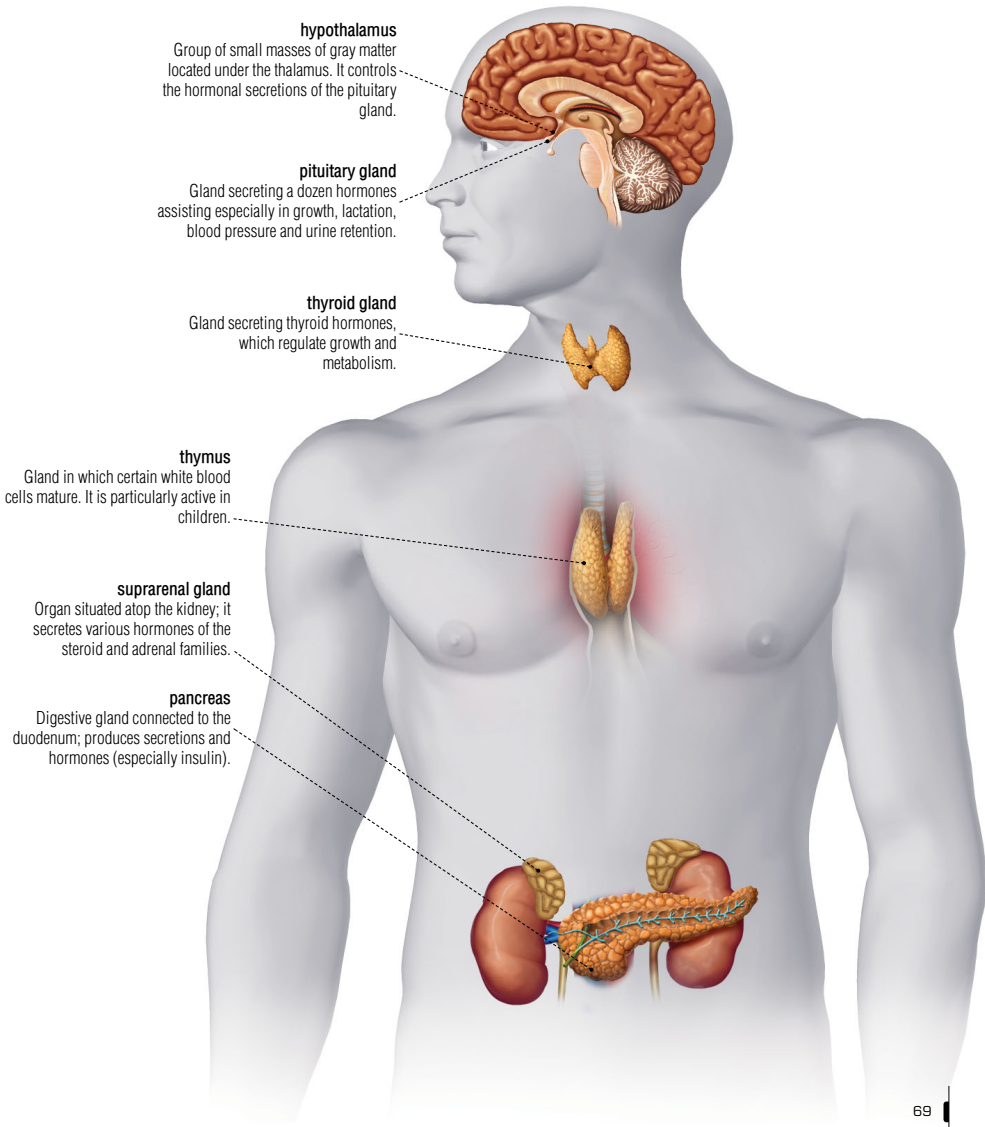
immune system

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

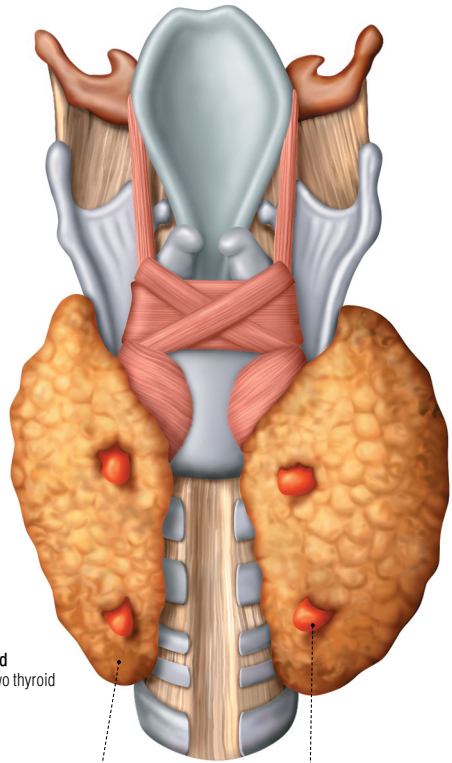
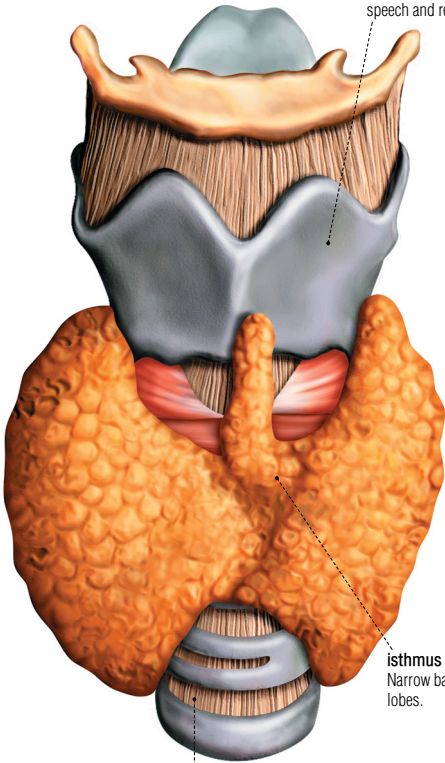
Gland secreting thyroid hormones, which regulate growth and metabolism.

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.

posterior view



trachea

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

isthmus of thyroid gland

Narrow band linking the two thyroid lobes.

lobe of thyroid gland

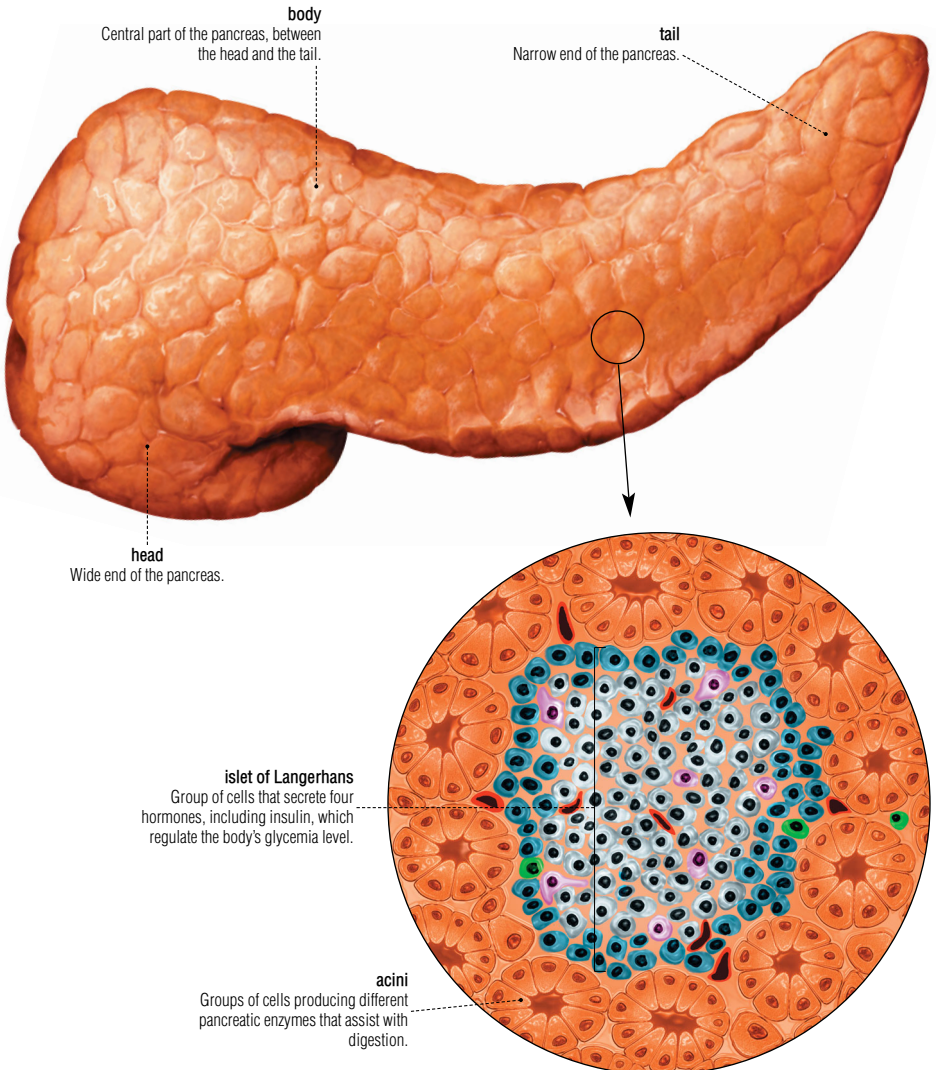
Each of the two main parts of the thyroid gland, located on either side of the larynx.

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.

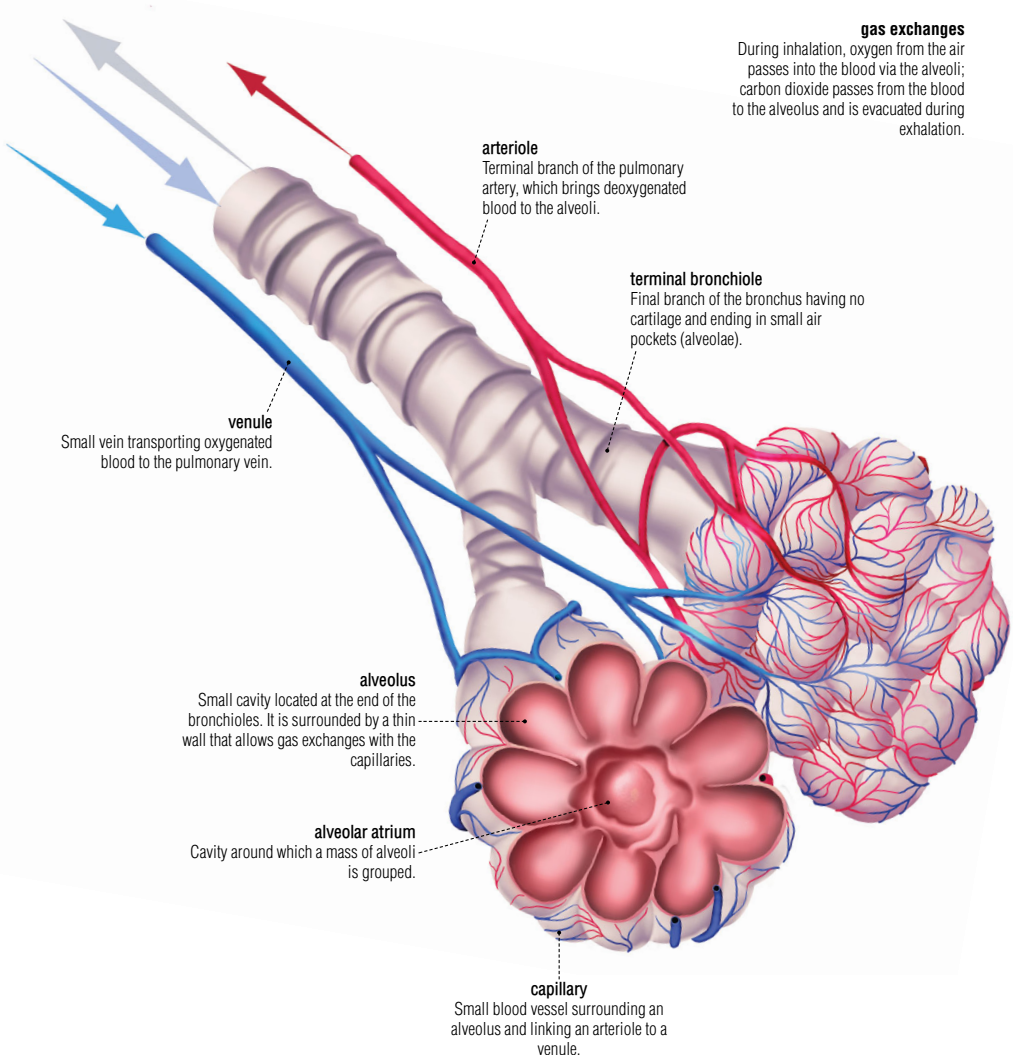
neural stalk
Duct linking the hypothalamus to the pituitary gland.

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.

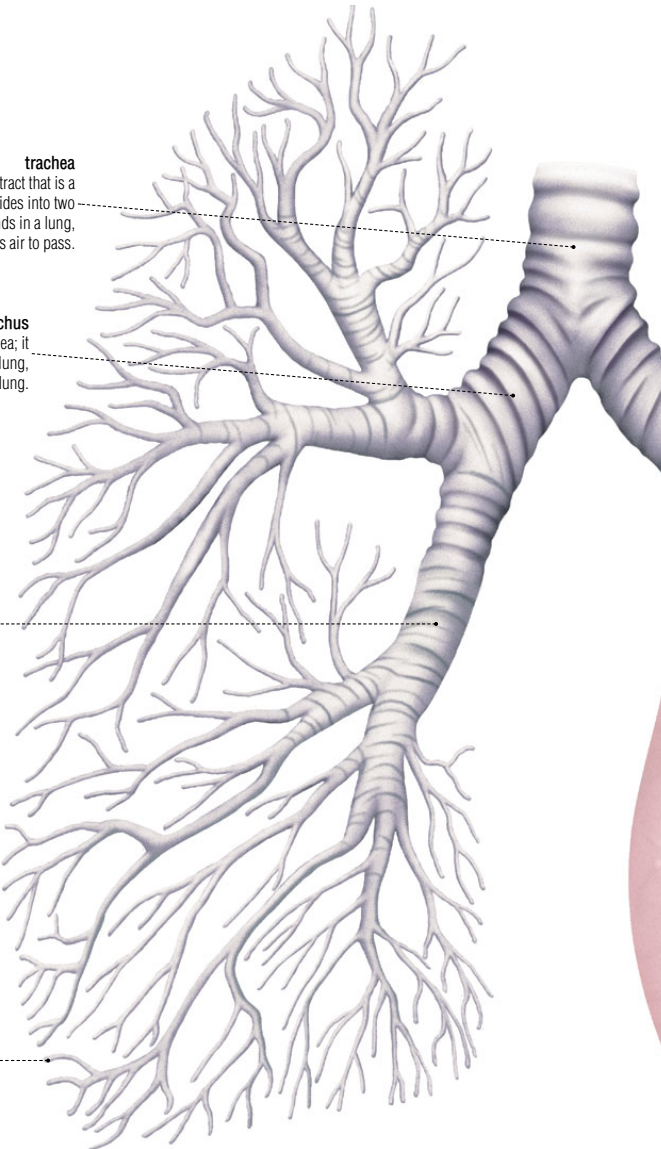
It causes gaseous exchanges to take place in the lungs by ensuring that oxygen is carried to the blood through inspiration, and carbon dioxide is eliminated from the blood through expiration.

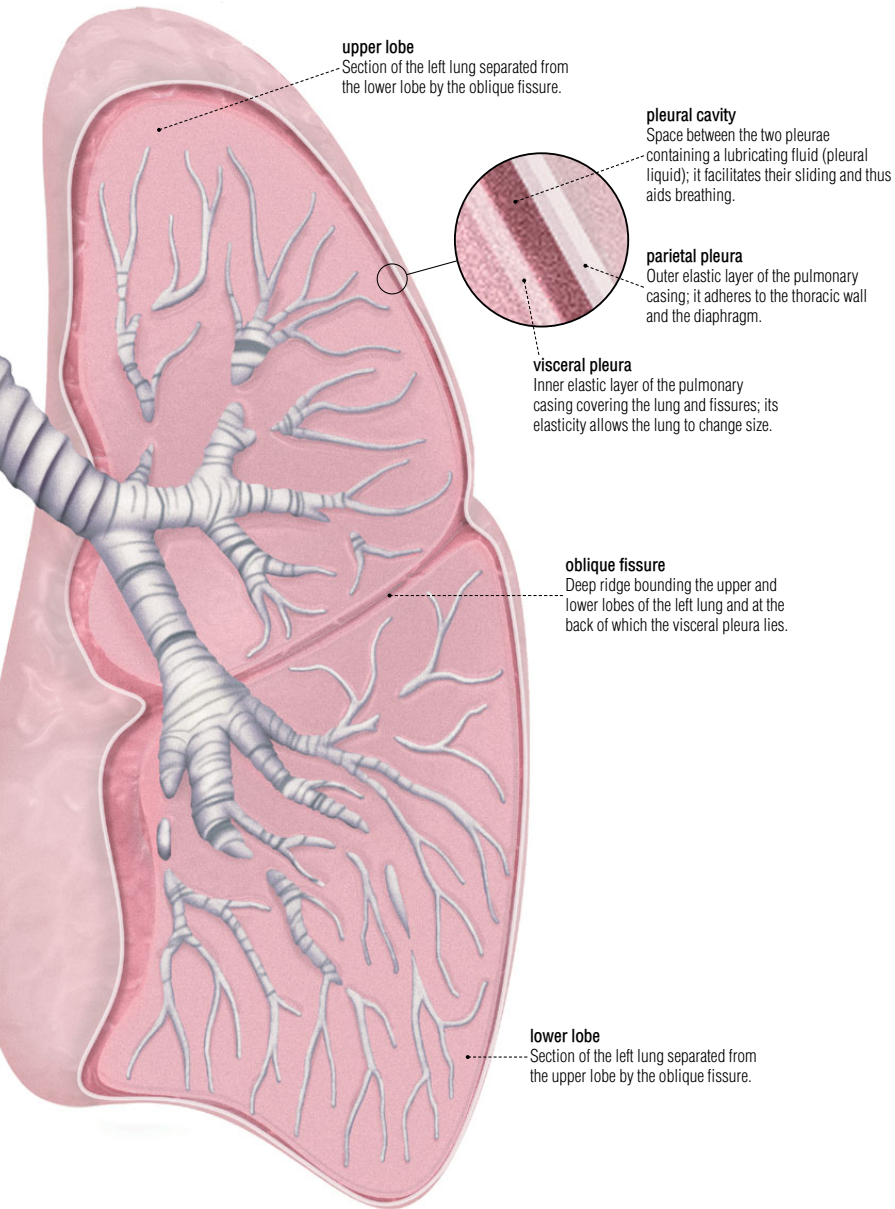


respiratory system

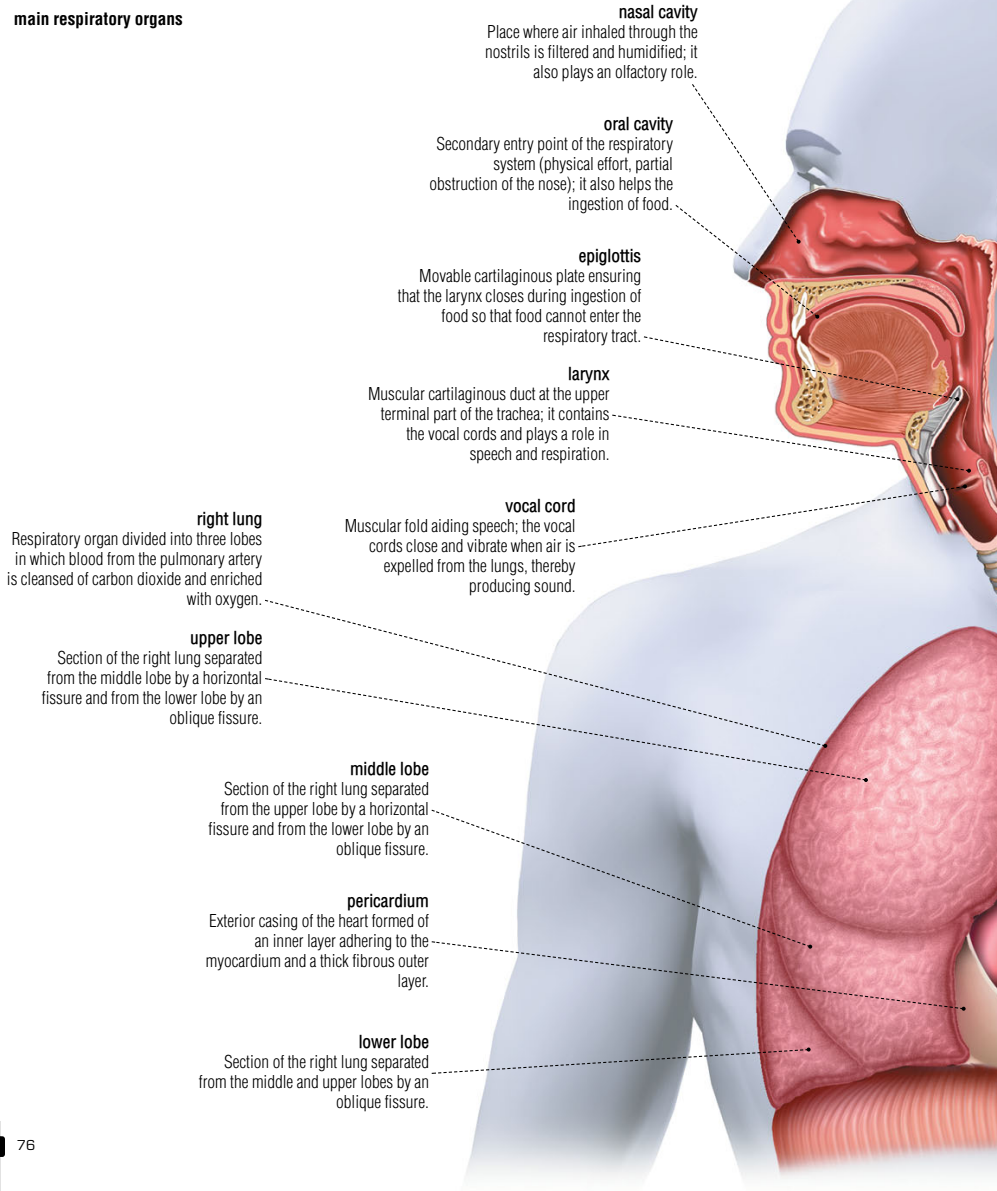
lungs

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

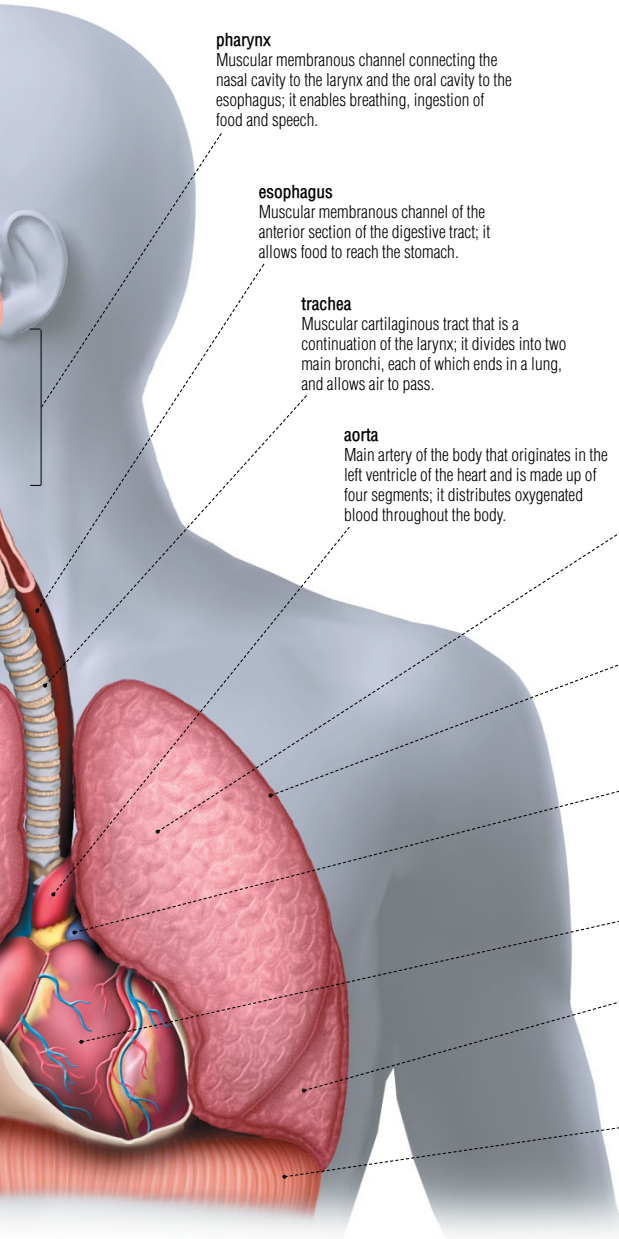
Section of the right lung separated from the upper lobe by a horizontal fissure and from the lower lobe by an oblique fissure.

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

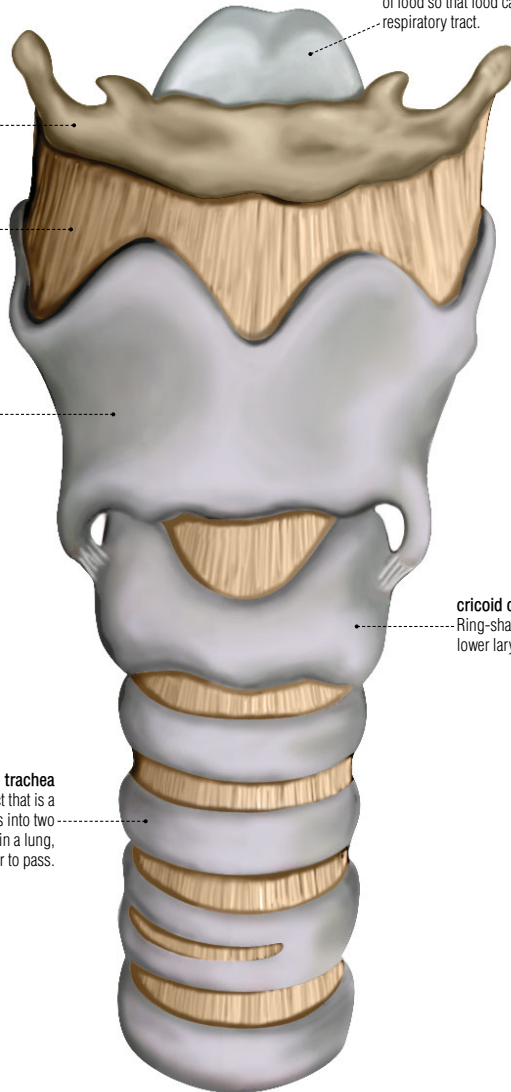
Structure formed of two lateral plates whose junction forms a very visible ridge in men (Adam's apple).

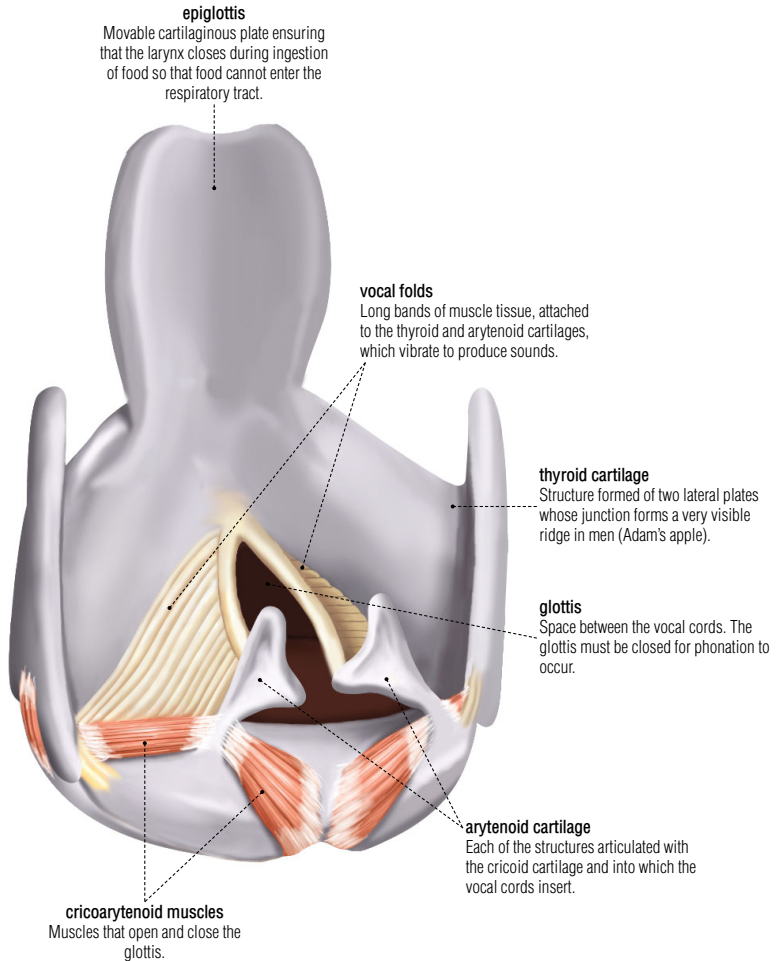
cricoid cartilage

Ring-shaped structure located in the lower larynx.

trachea

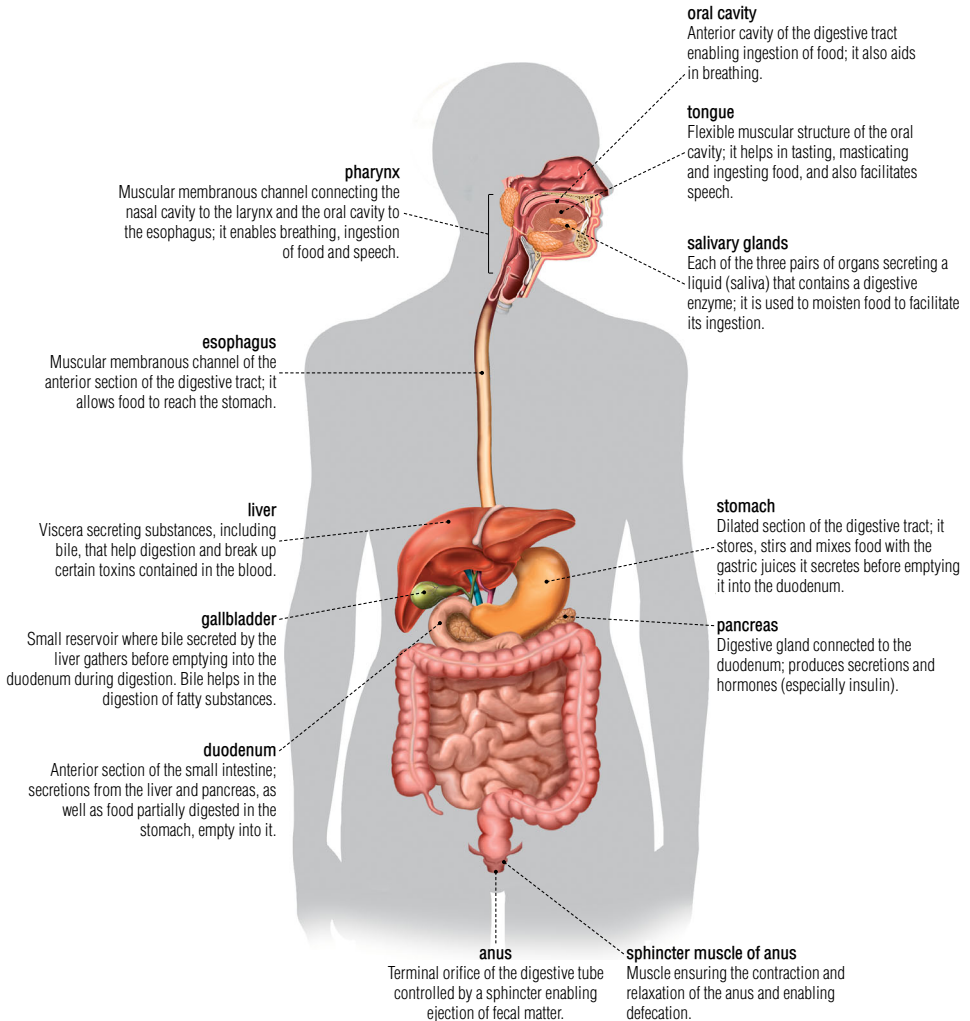
Muscular cartilaginous tract that is a continuation of the larynx; it divides into two main bronchi, each of which ends in a lung, and allows air to pass.

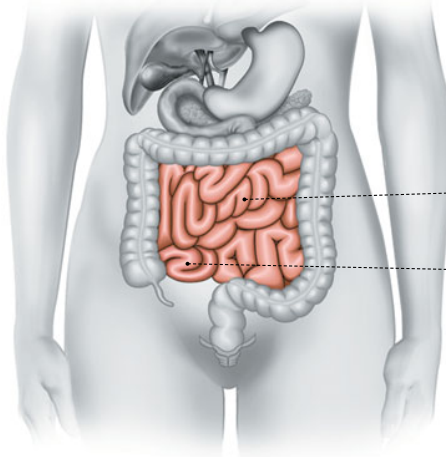




digestive system

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.

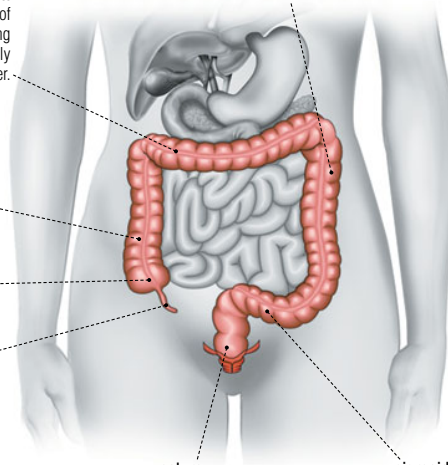
ascending colon
First segment of the colon; it absorbs water from food residue before it is excreted.

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

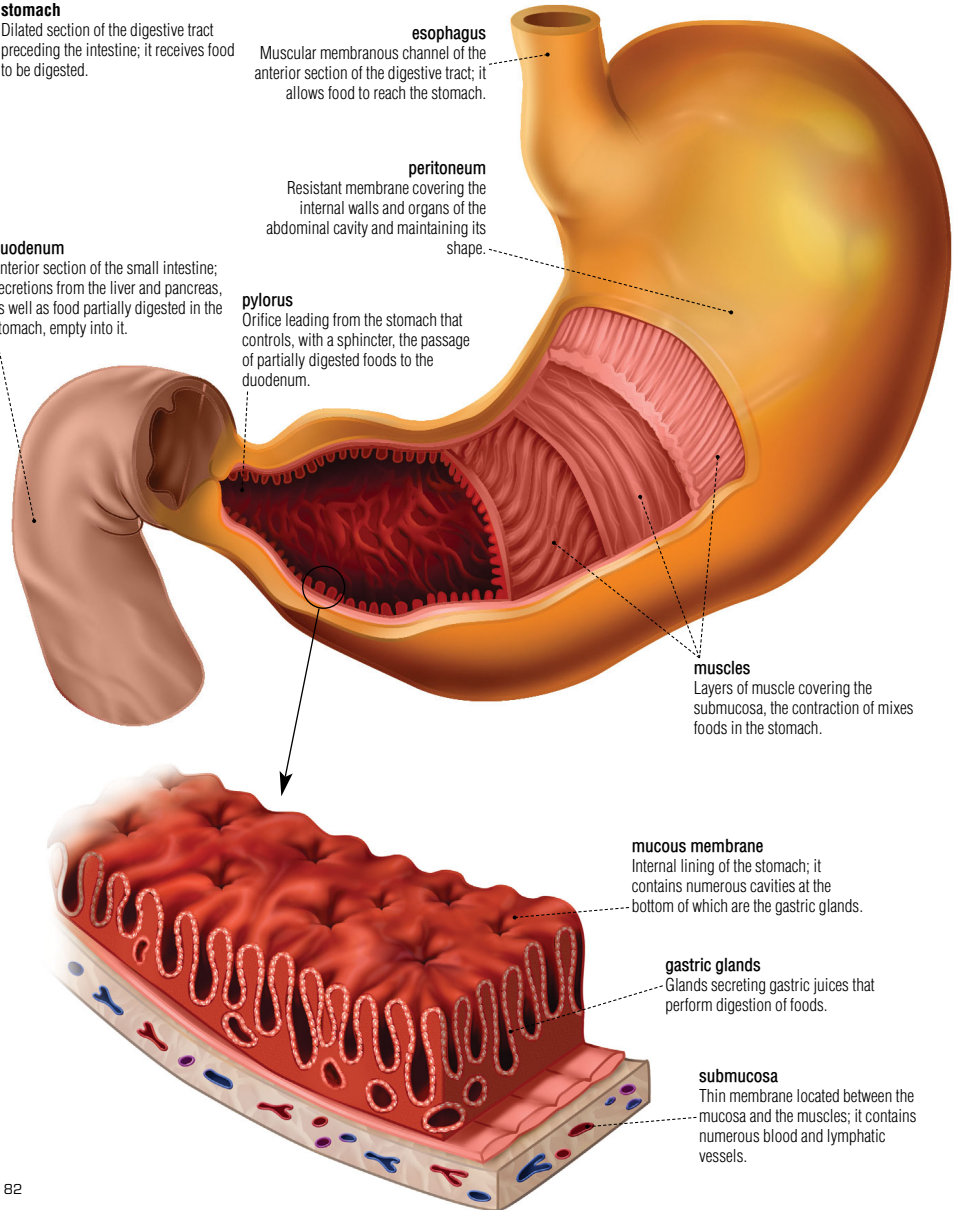
Internal lining of the stomach; it contains numerous cavities at the bottom of which are the gastric glands.

gastric glands

Glands secreting gastric juices that perform digestion of foods.

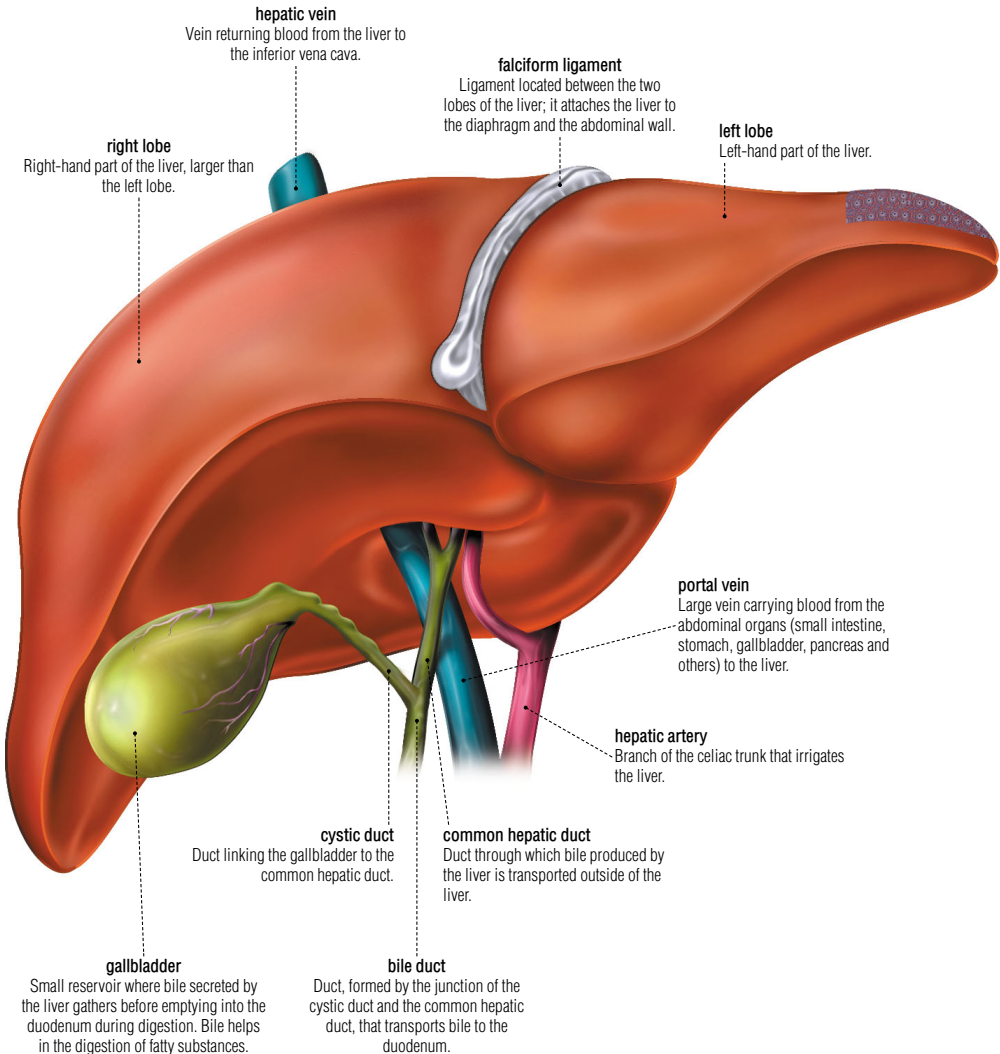
submucosa

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



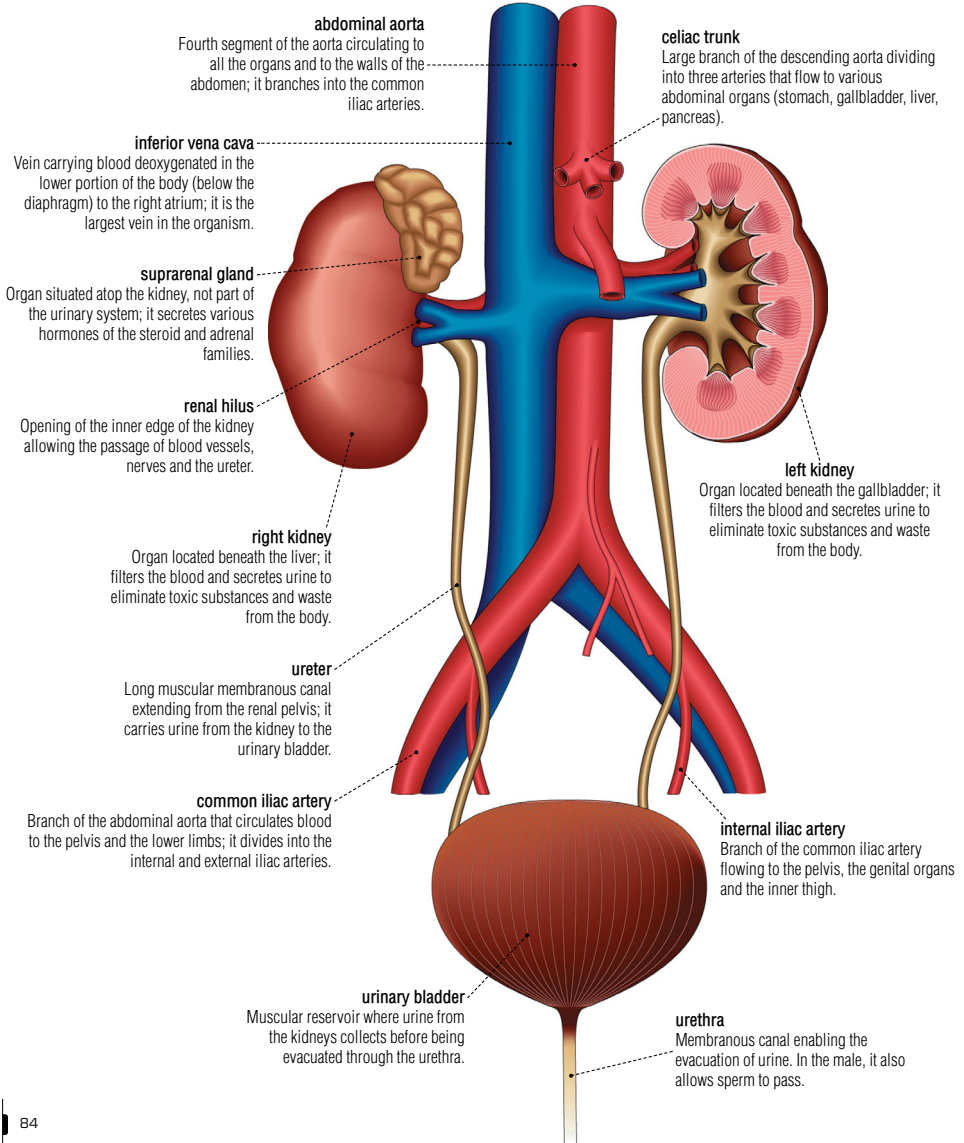
liver

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



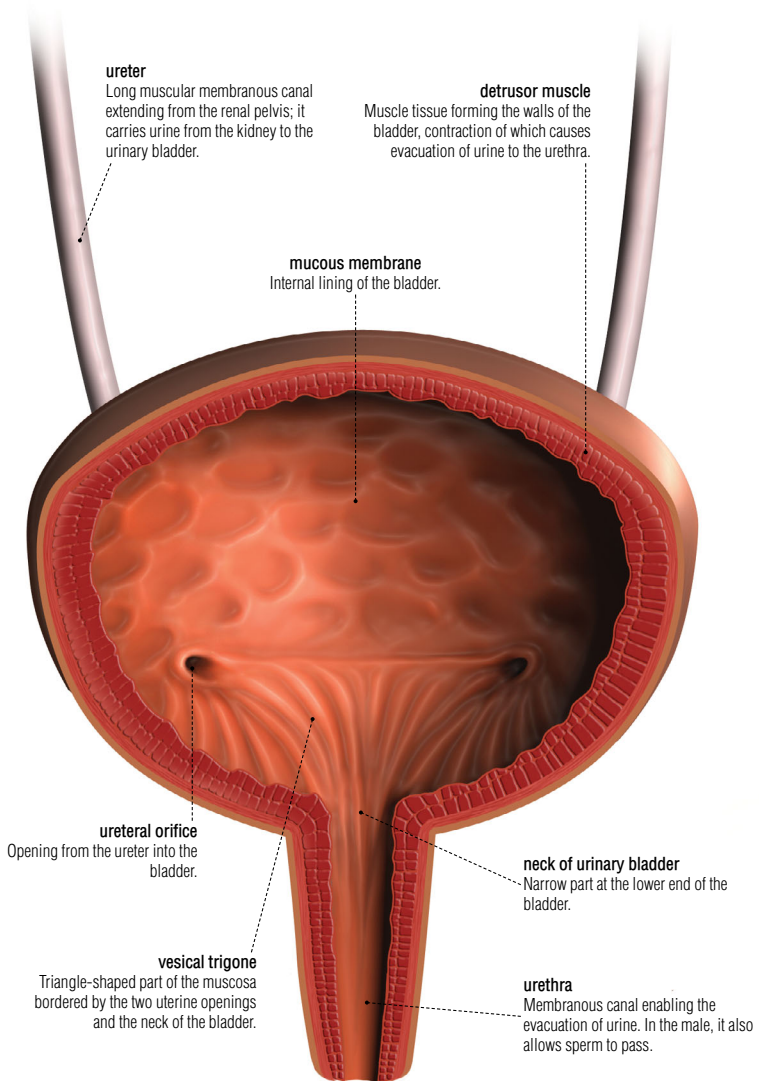
urinary system

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.

cortex
Outer portion of the renal tissue inserted between the Malpighian pyramids; it is made up of small vesicles that filter the blood and produce urine.

medulla
Inner part of the renal tissue made up of Malpighian pyramids, cone-shaped structures that connect the urine collection canals.

renal artery
Branch of the abdominal aorta circulating blood to the kidney.

renal vein
Large vein collecting blood from the kidney; it flows into the inferior vena cava.

renal pelvis
Broad section of the excretory renal tract resulting from the juncture of the calyces; it extends into the ureter.

major calyx
Cavity draining the kidney; it is formed by the meeting of several minor calyces and opens into the renal pelvis.

ureter
Long muscular membranous canal extending from the renal pelvis; it carries urine from the kidney to the urinary bladder.

capsule

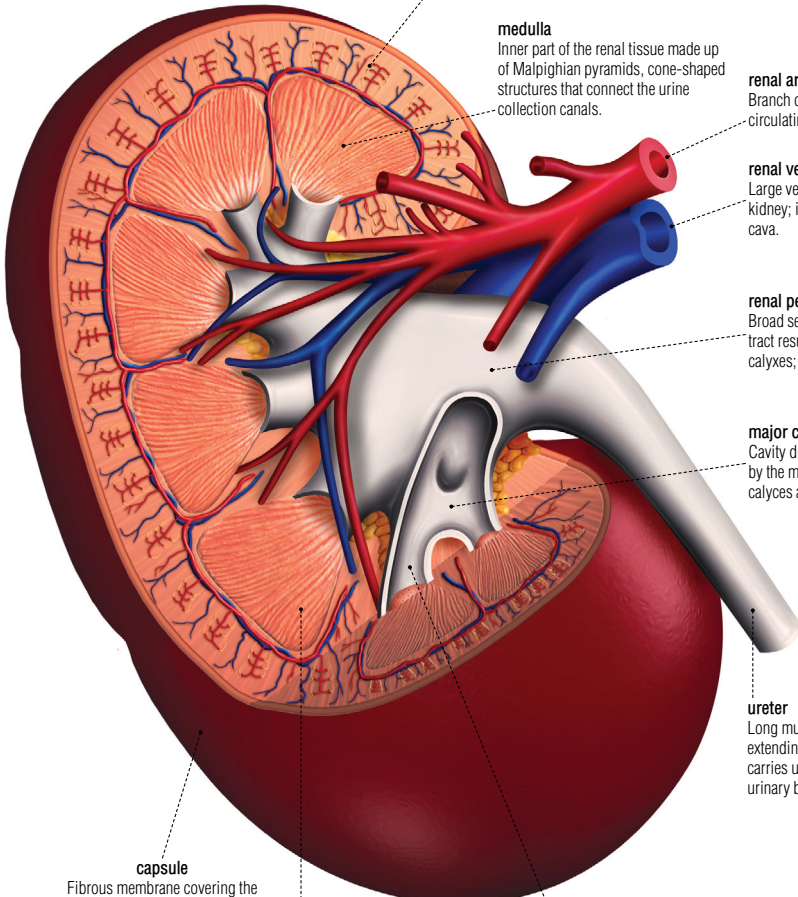
Fibrous membrane covering the kidney.

renal pyramid

Conical structure connecting the urine-collecting ducts.

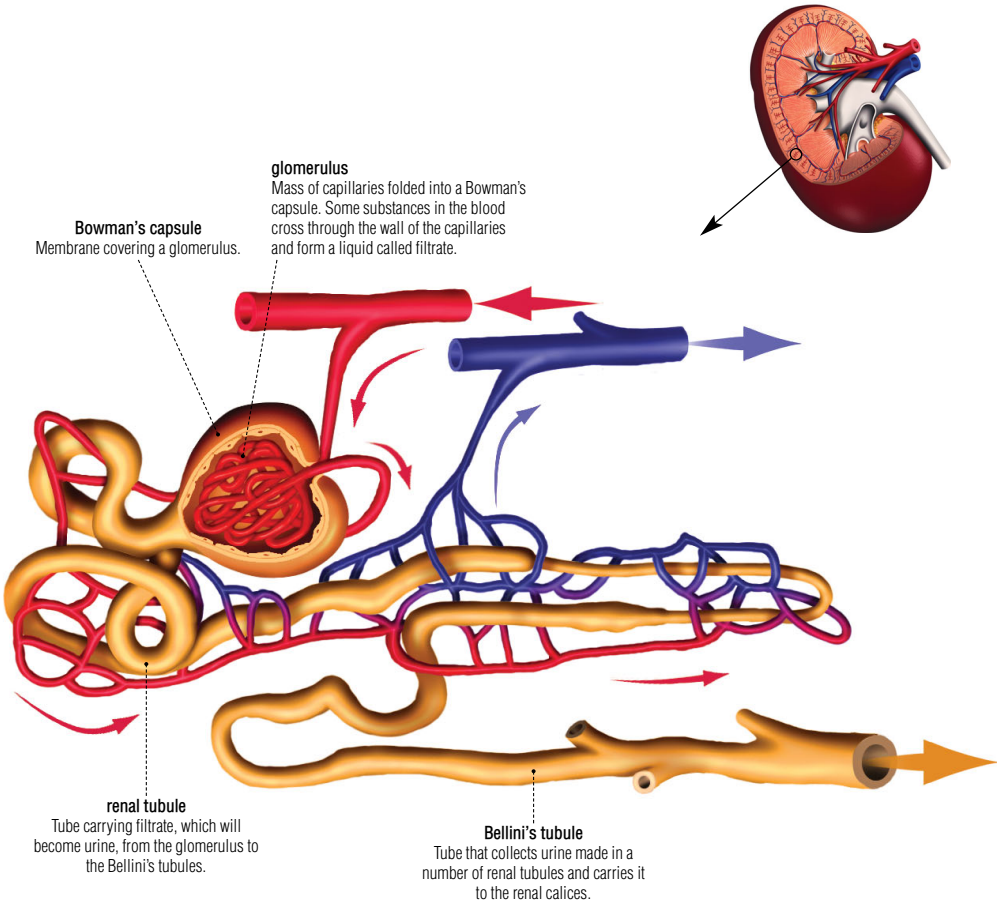
minor calyx

Small cavity draining the kidney, collecting urine from the papillae and opening into a major calyx.



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.

iliohypogastric nerve

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

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.

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.

sciatic nerve

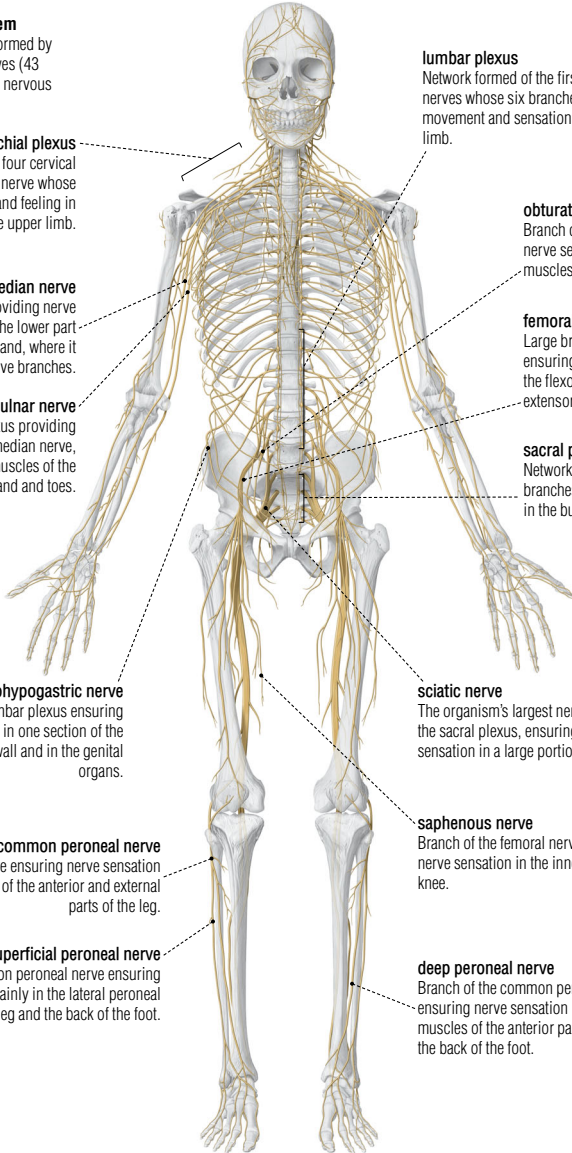
The organism's largest nerve, originating in the sacral plexus, ensuring nerve and motor sensation in a large portion of the lower limb.

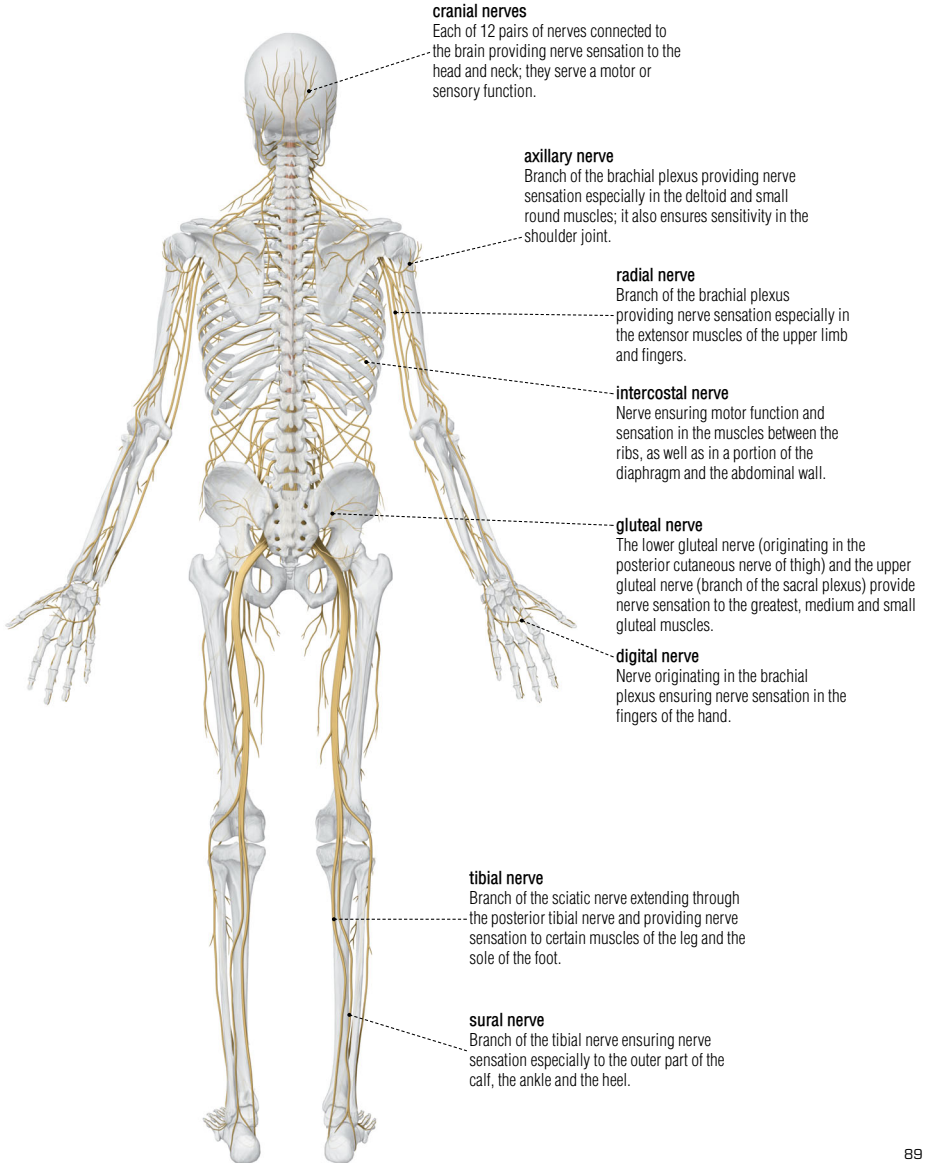
saphenous nerve

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

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.





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.

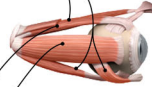
olfactory nerve
Sensory nerve involved in smell.



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.



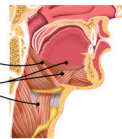
trochlear nerve
Motor nerve involved in eye movements.

abducens nerve
Motor nerve involved in lateral movements of the eye.

vestibulocochlear nerve
Sensory nerve responsible for hearing and balance.

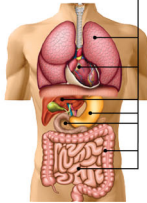


glossopharyngeal nerve
Mixed nerve associated with swallowing, the gag reflex, taste, and sensations from the back of the tongue and the pharynx.



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.

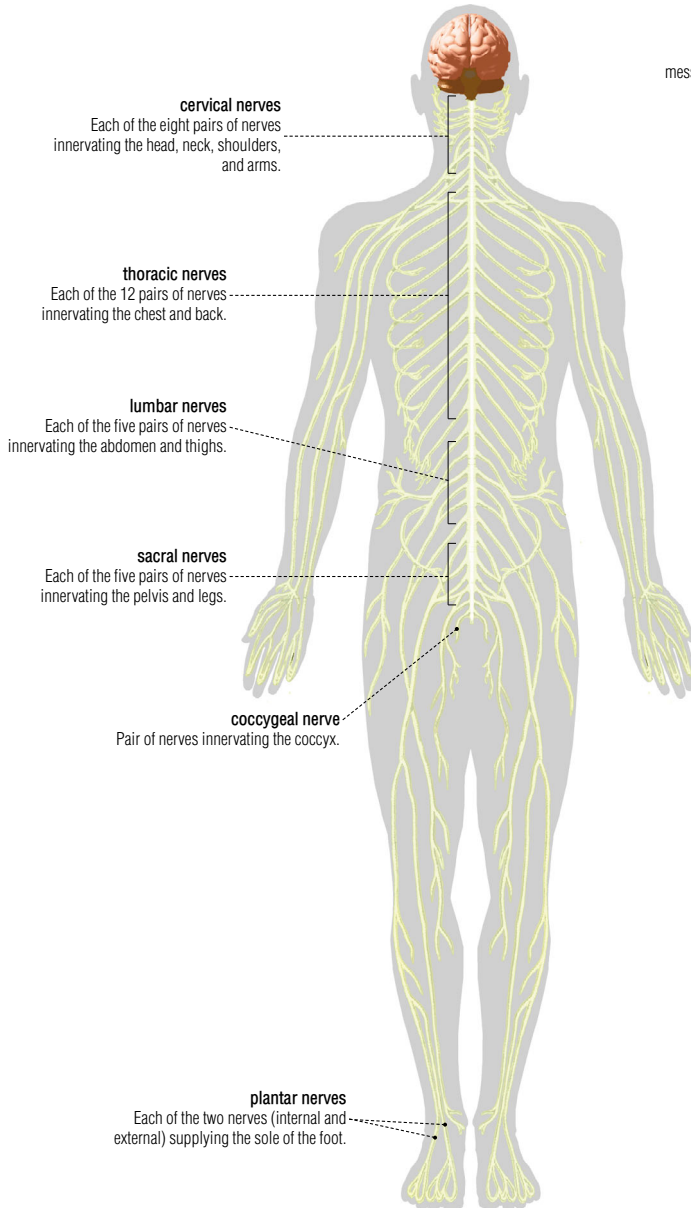


accessory nerve
Motor nerve that controls movements of the neck and swallowing.



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

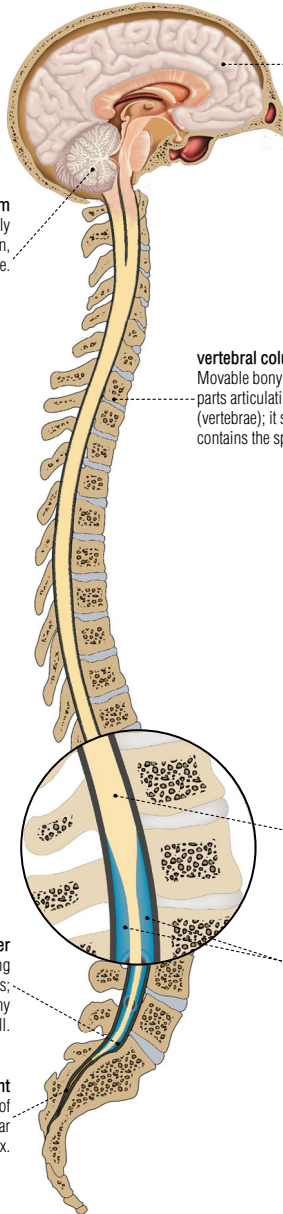
Thick and resistant outer meninx fusing with the tissue covering the spinal nerves; it does not adhere directly to the bony vertebral wall.

internal filum terminale

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

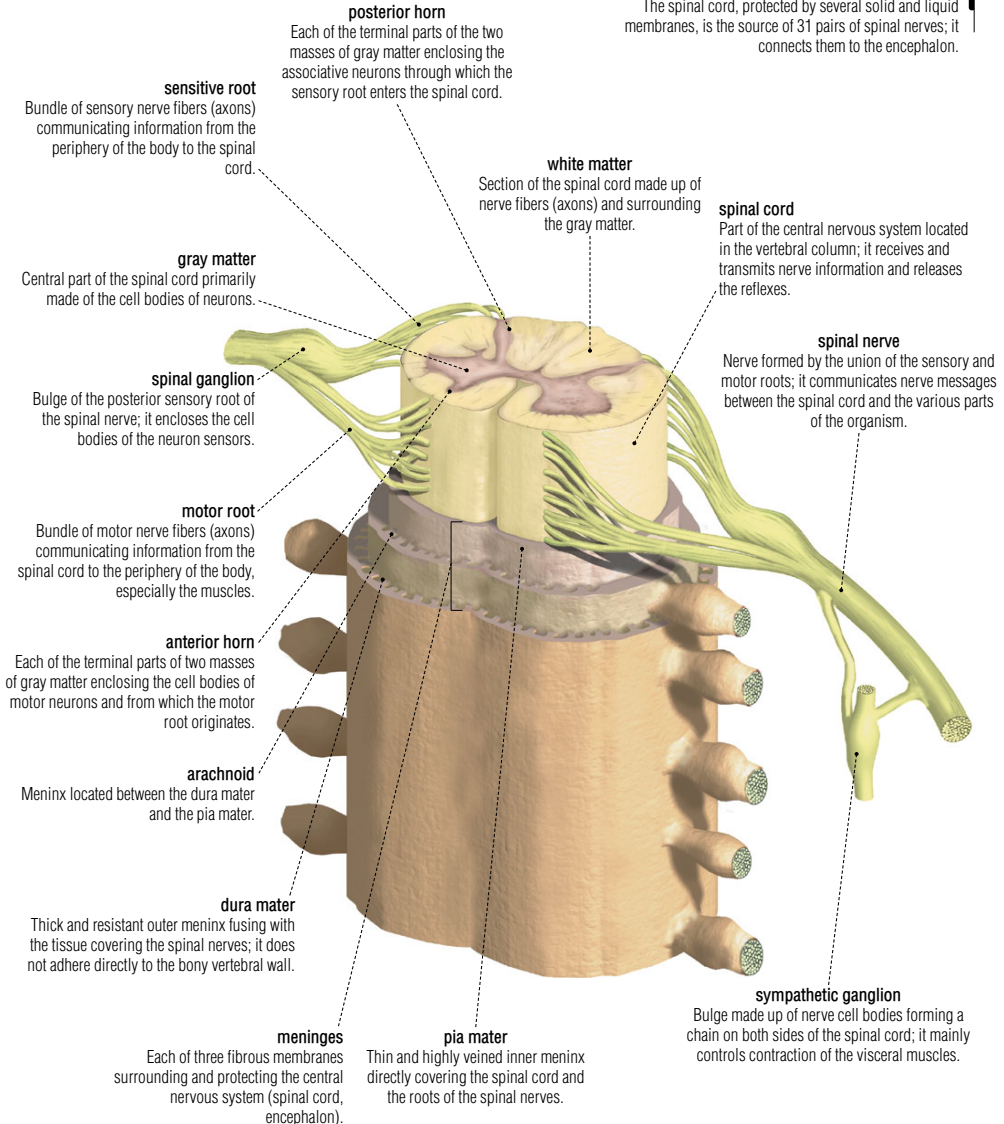
terminal filament

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.



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

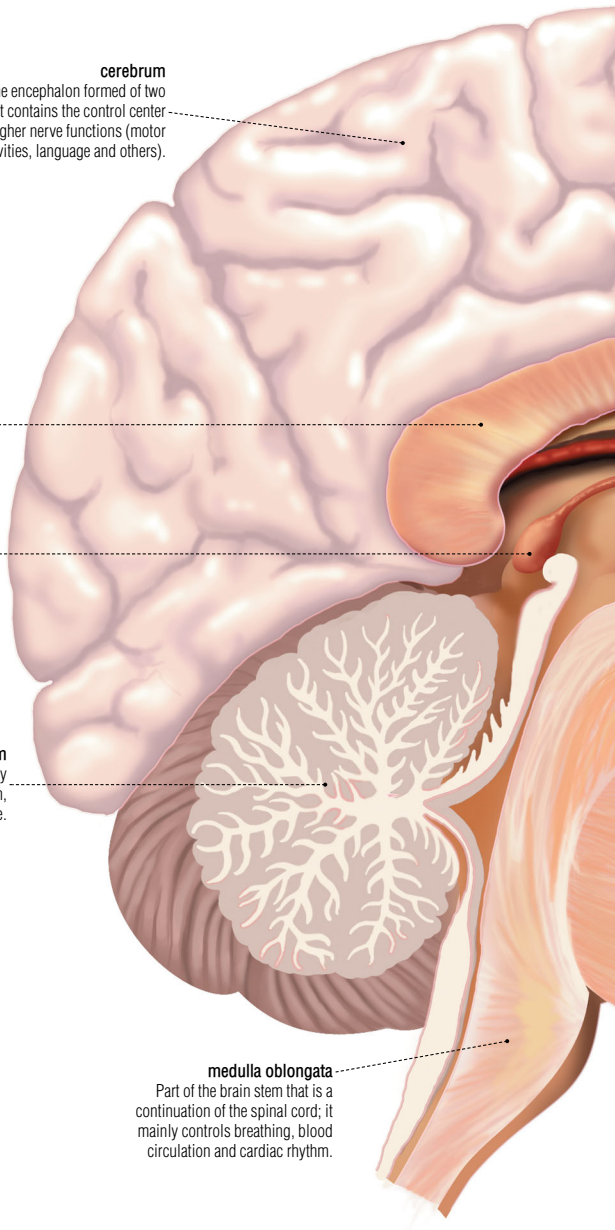
Gland secreting a hormone (melatonin) that mainly influences the biological rhythms.

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.



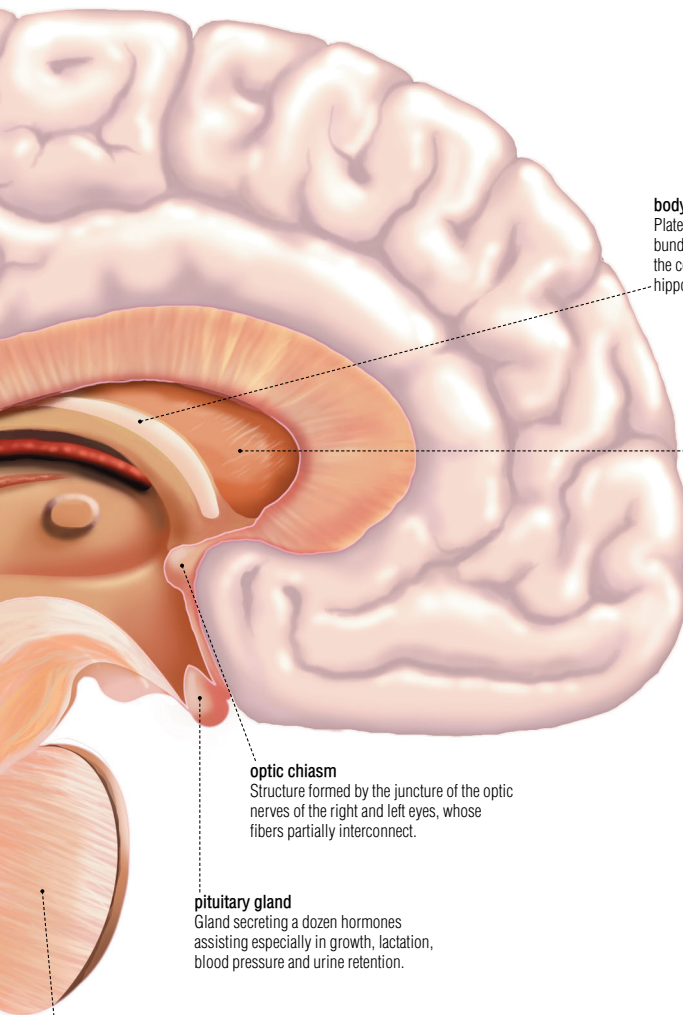
**body of fornix**

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

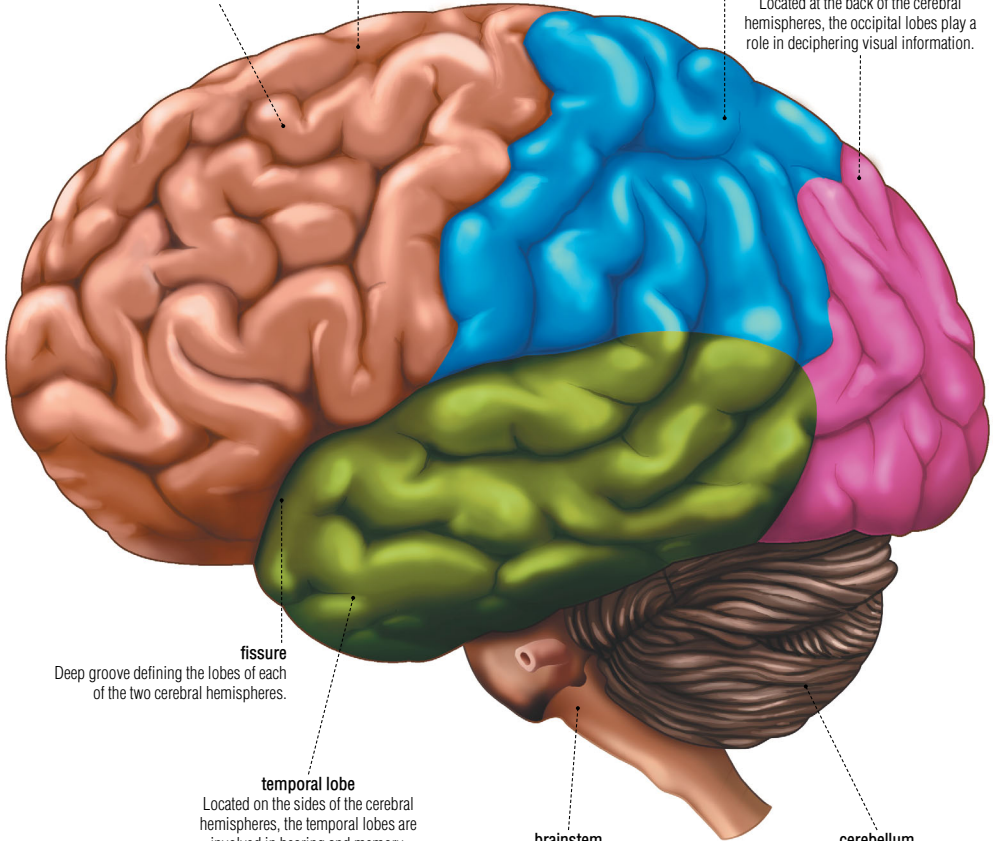
Located on the sides of the cerebral hemispheres, the temporal lobes are involved in hearing and memory.

brainstem

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

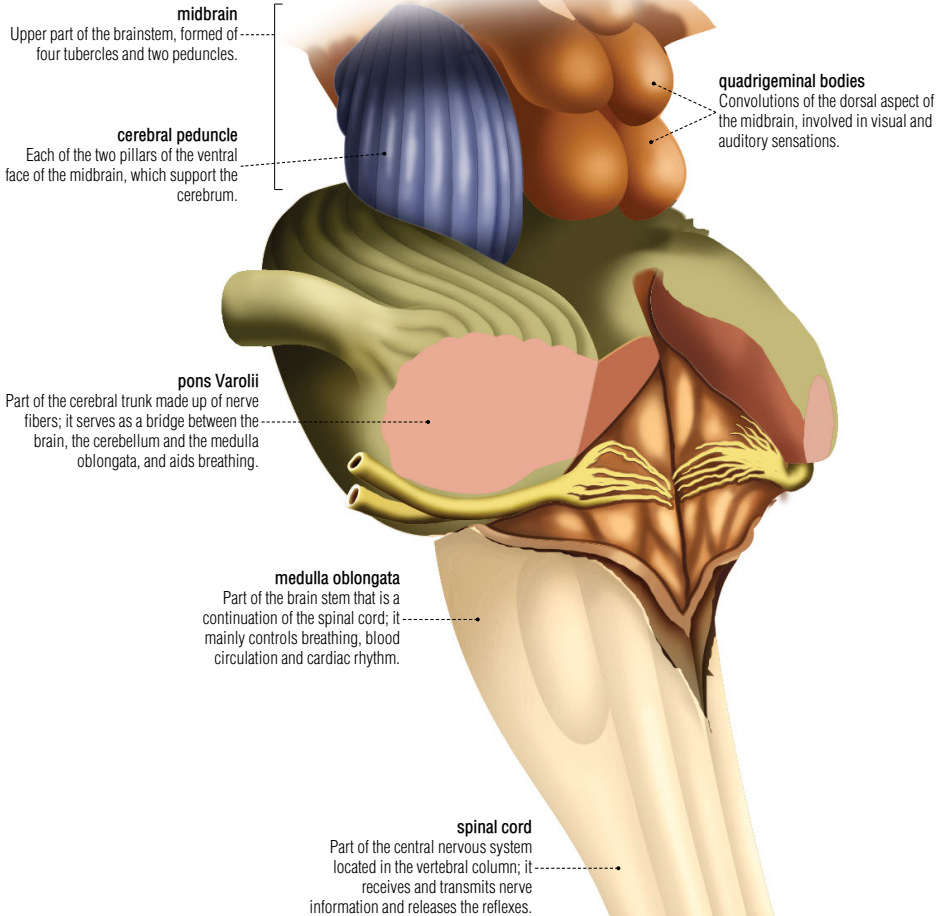
cerebellum

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



brainstem

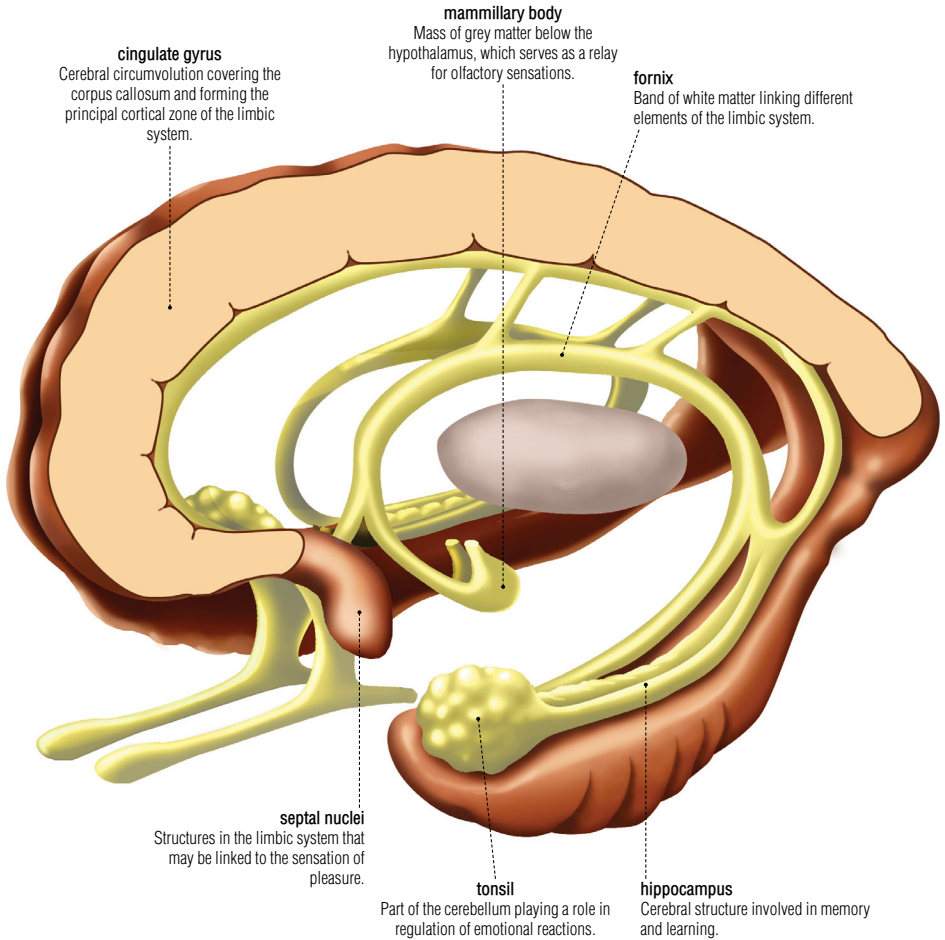
Part of the brain extending the spinal cord, governing a number of vital functions and transmissions between the spinal cord and the brain.



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.

spinal cord

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

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.

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

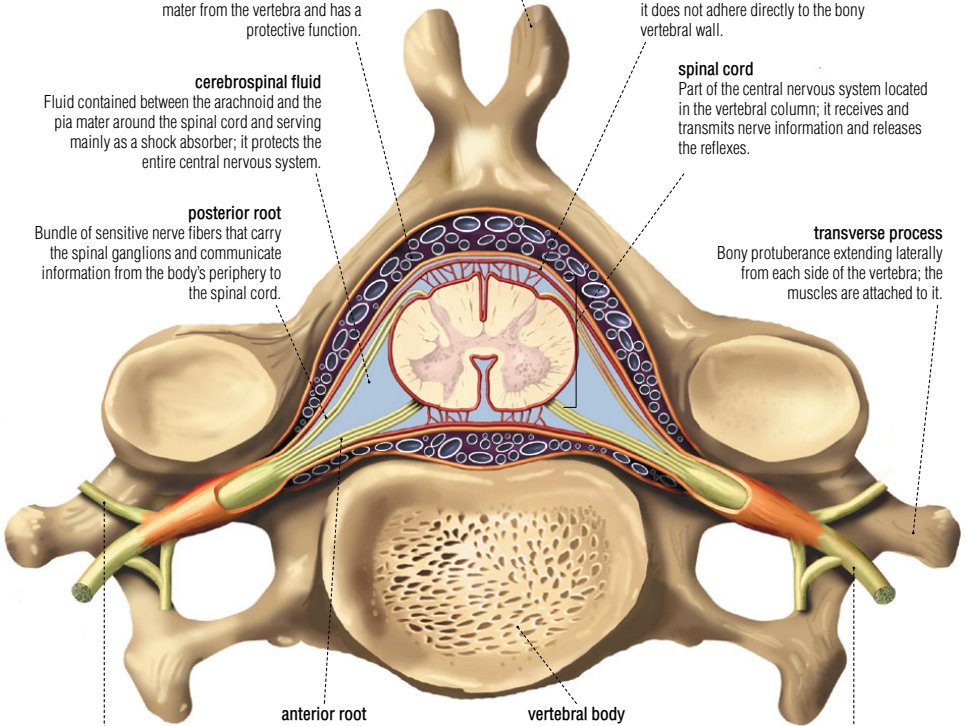
Anterior bony cylinder of a vertebra surrounded by two transverse processes.

communicating ramus

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

spinal nerve

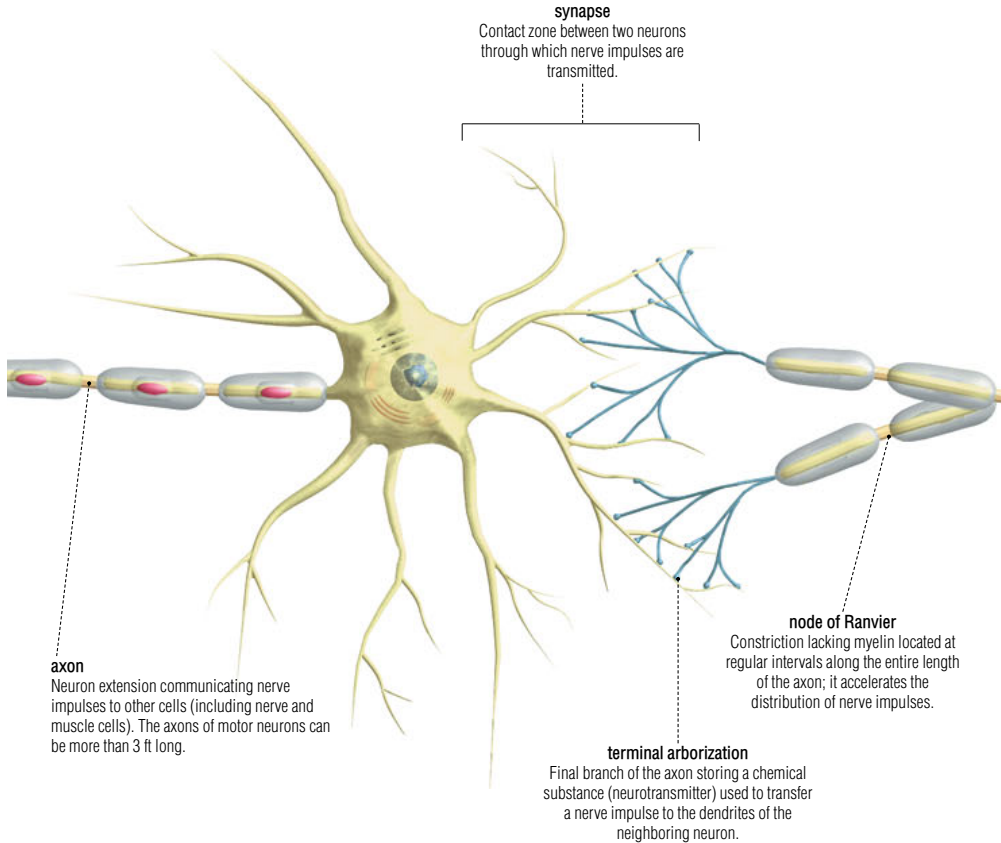
Nerve formed by the union of the sensory and motor roots; it communicates nerve messages between the spinal cord and the various parts of the organism.

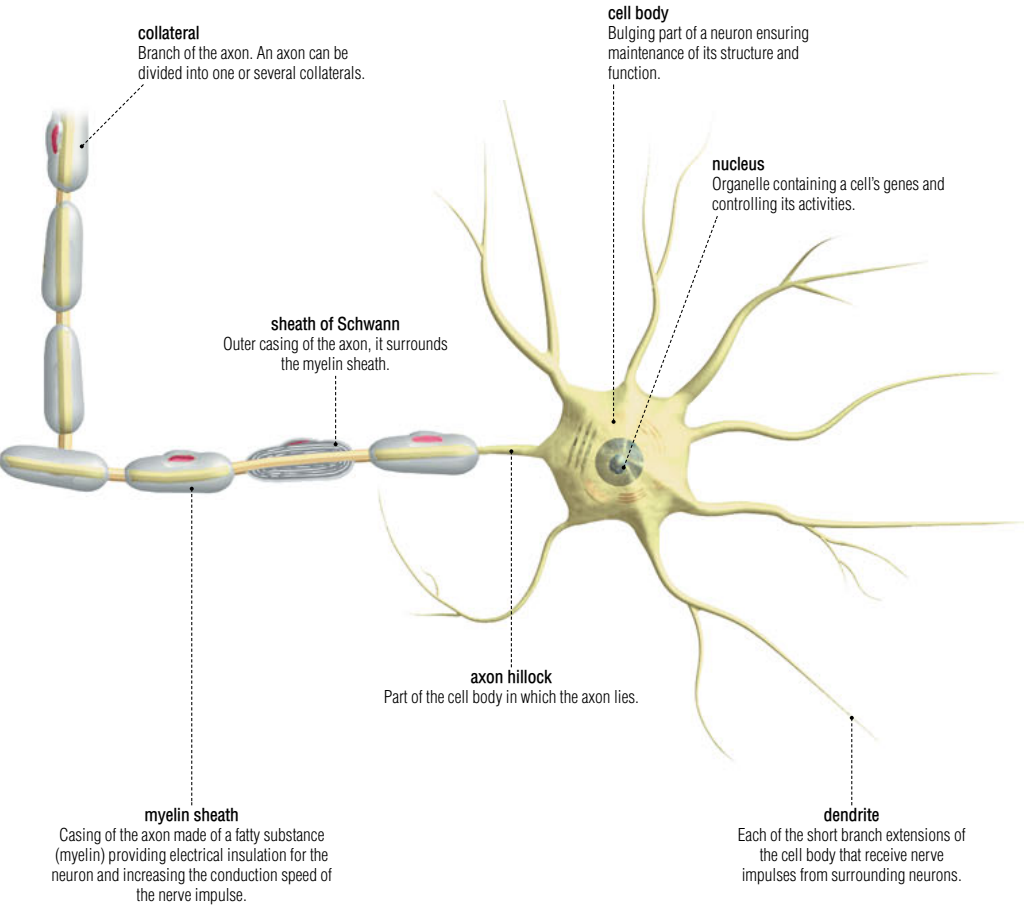


nervous system

chain of neurons

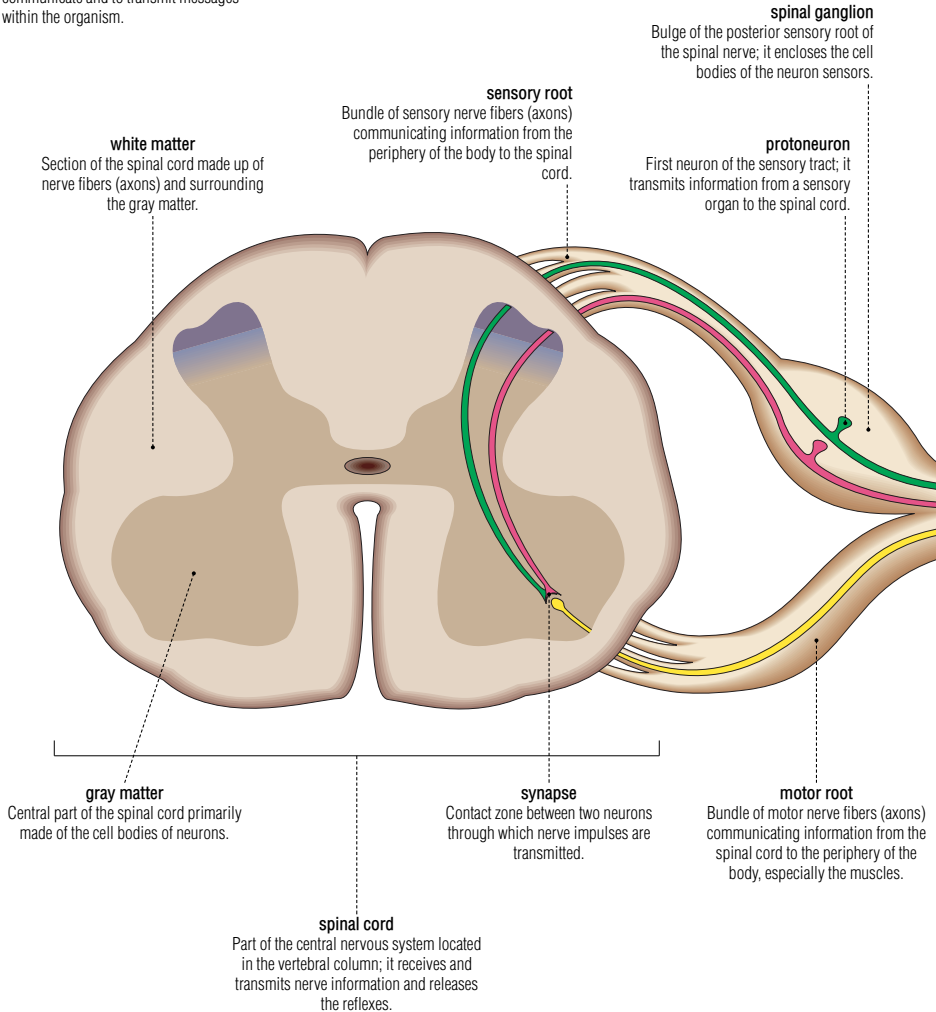
All the interconnected complex nerve cells receiving, communicating and transmitting messages in the form of nerve impulses.

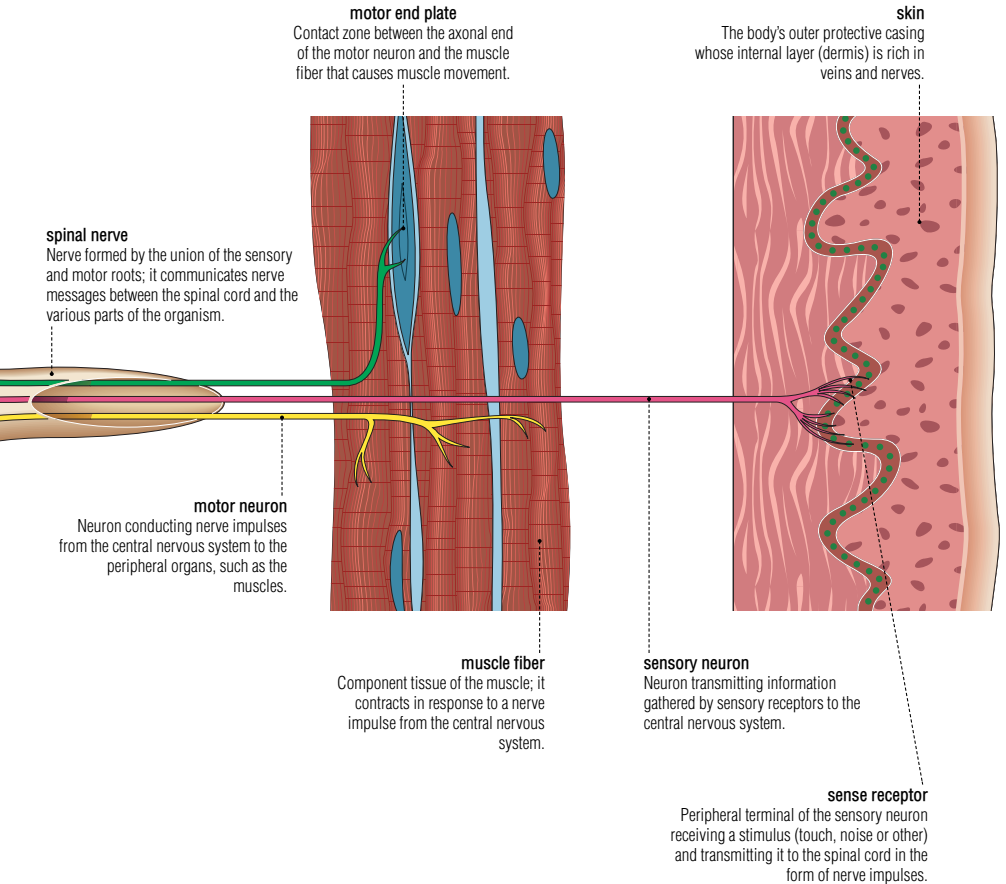




sensory impulse

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

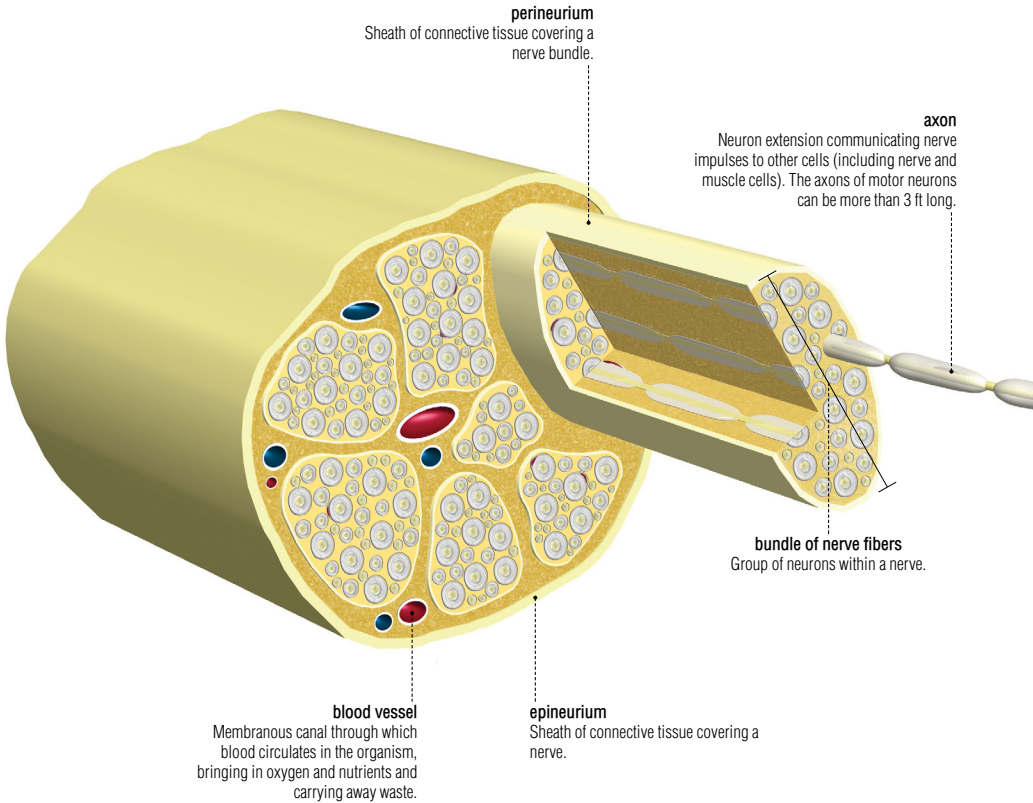




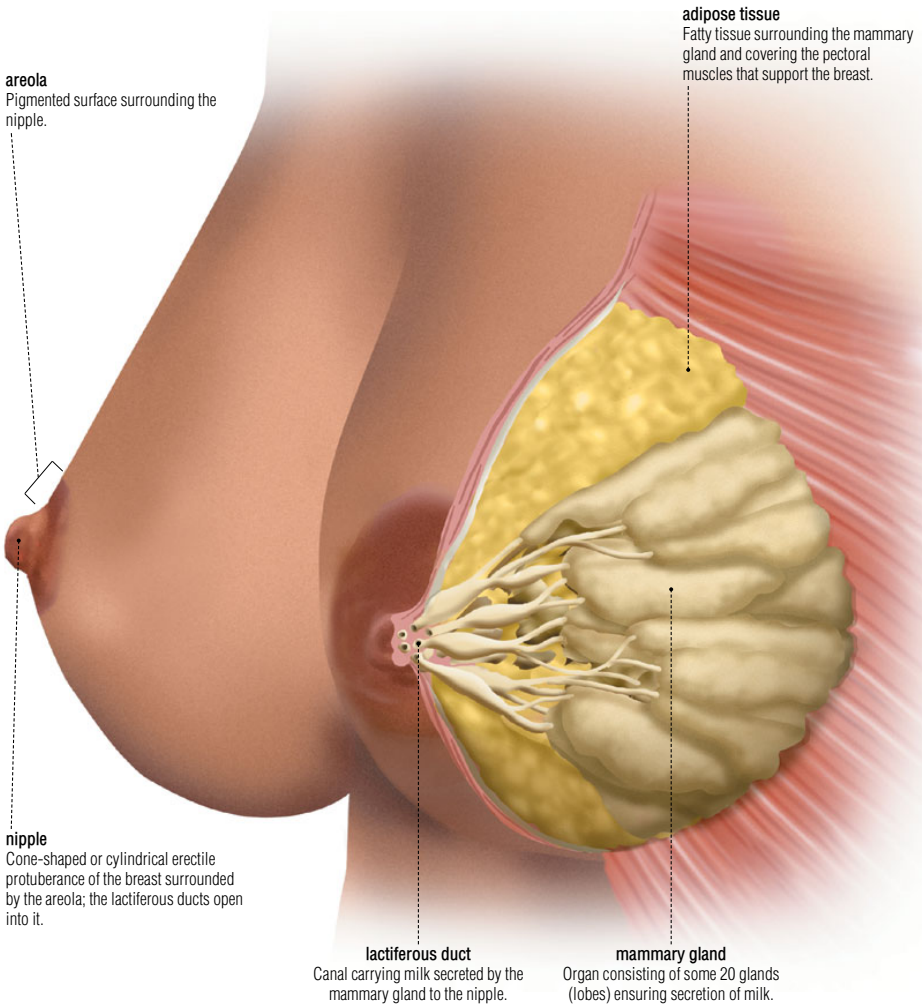
nervous system

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 milk-secreting glandular organ; it develops at puberty and increases in size during pregnancy.

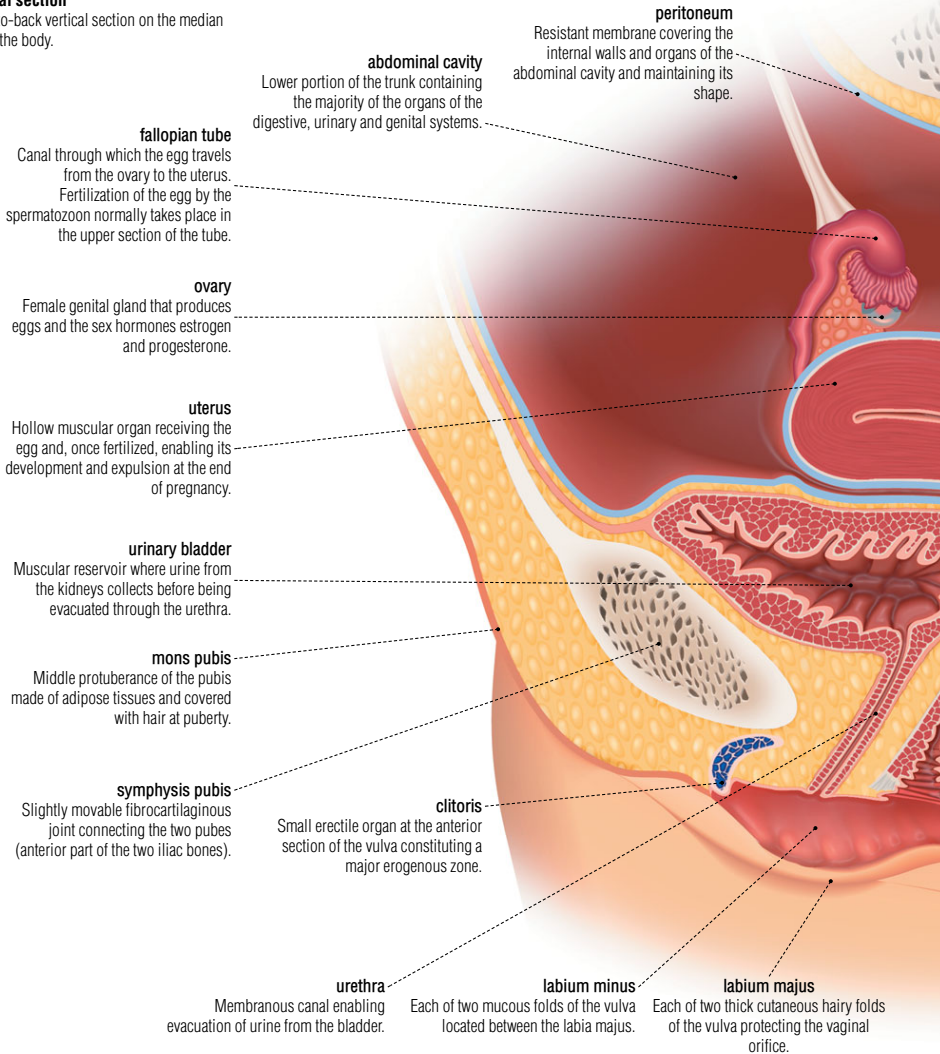


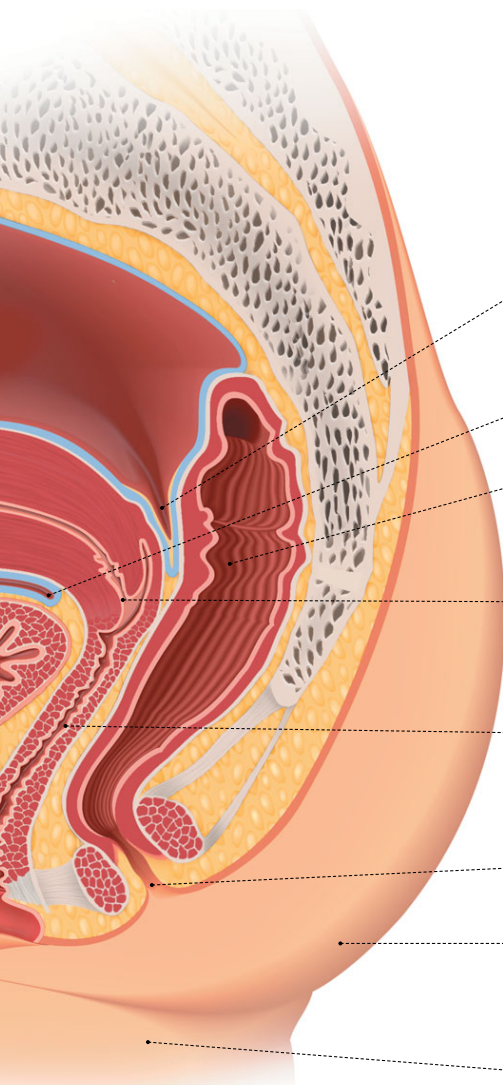
female reproductive organs

Mainly internal, they enable fertilization of the egg by the spermatozoon and the development of the embryo and fetus.

sagittal section

Front-to-back vertical section on the median line of the body.



**pouch of Douglas**

Small pouch formed by the fold of the peritoneum between the rectum and the uterus.

uterovesical pouch

Small pouch formed by the fold of the peritoneum between the uterus and the bladder.

rectum

Terminal section of the large intestine preceding the anus.

cervix of uterus

Lower narrow section of the uterus through which it connects with the vagina.

vagina

Muscular canal located between the neck of the uterus and the vulva enabling copulation.

anus

Terminal orifice of the digestive tract enabling ejection of fecal matter.

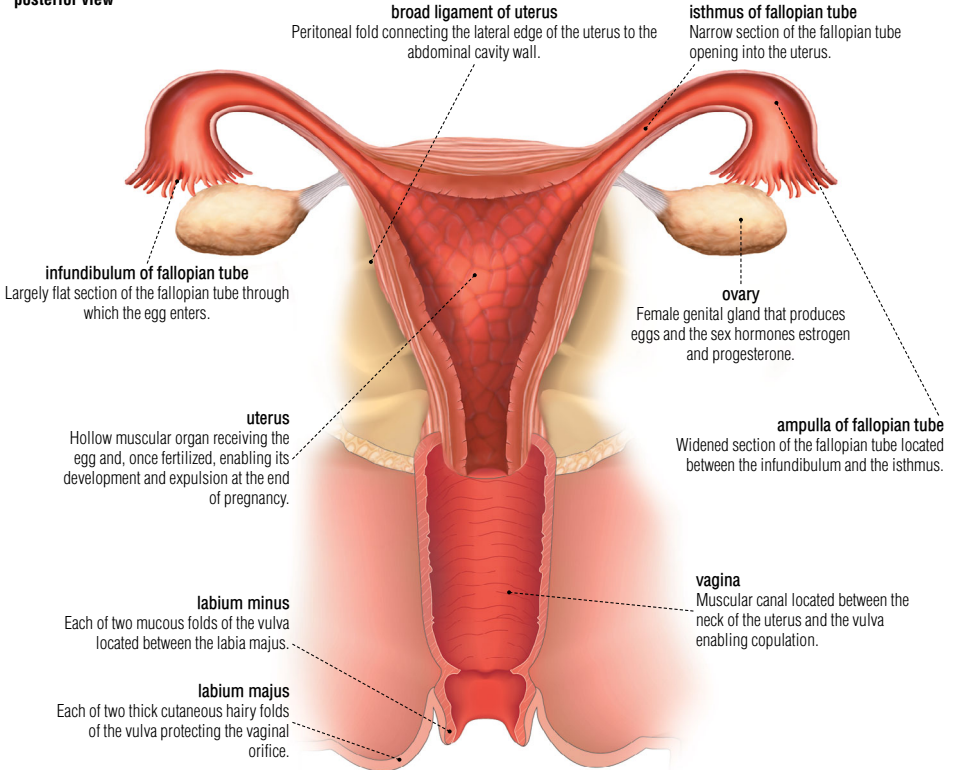
buttock

Fleshy part consisting mostly of muscles located at the base of the back.

thigh

Section of the leg between the hip and the knee; it contains many powerful muscles.

posterior view



fallopian tubes

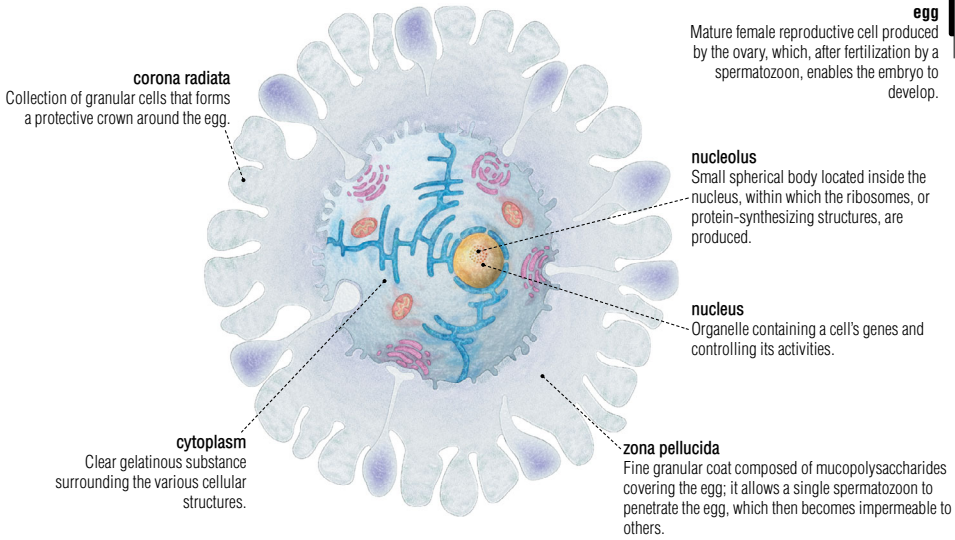
Canals transporting the egg from the ovary to the uterus; fertilization of the egg by the spermatozoon generally takes place in the upper part of the tube.



vulva

External female genital organs consisting mainly of the labia and the clitoris.

female reproductive organs

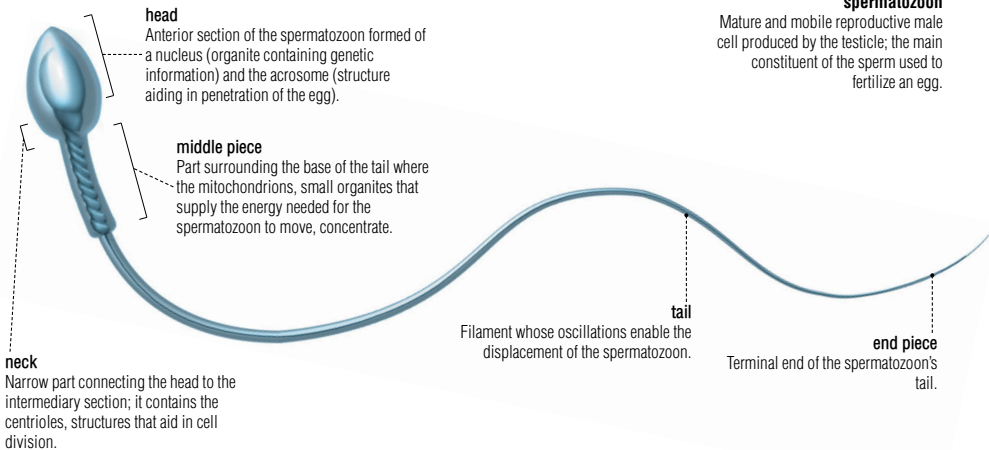


egg

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

male reproductive organs

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



spermatozoon

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

male reproductive organs

sagittal section

Front-to-back vertical section on the median line of the body.

abdominal cavity

Lower portion of the trunk containing the majority of the organs of the digestive, urinary and genital systems.

symphysis pubis

Slightly movable fibrocartilaginous joint connecting the two pubes (anterior part of the two iliac bones).

cavernous body

Erectile tissue of the back of the penis extending to the gland.

male urethra

Membranous duct enabling evacuation of urine and carrying sperm to the terminal part of the penis.

penis

Organ enabling copulation as well as the evacuation of urine and sperm; during sexual arousal, it fills with blood and forms an erection.

testicle

Male genital gland that produces spermatozoa and the sex hormone testosterone.

scrotum

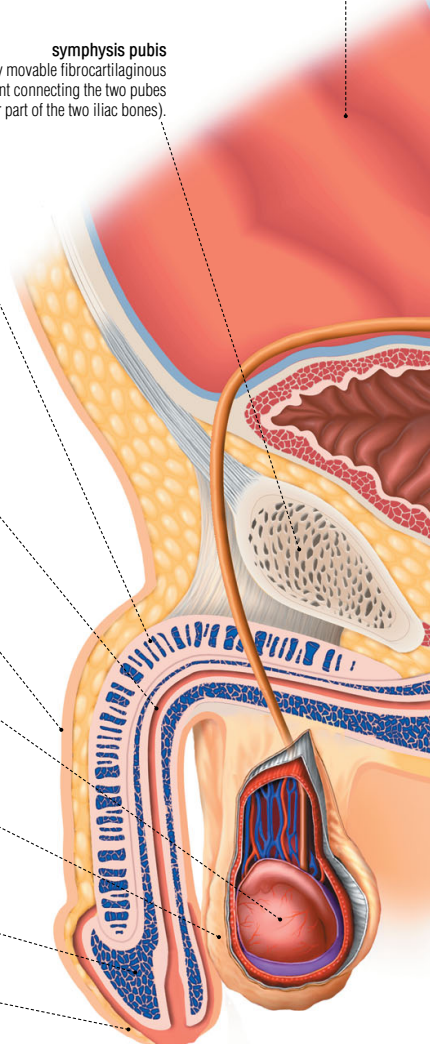
Cutaneous muscular pouch containing the testicles and regulating their temperature.

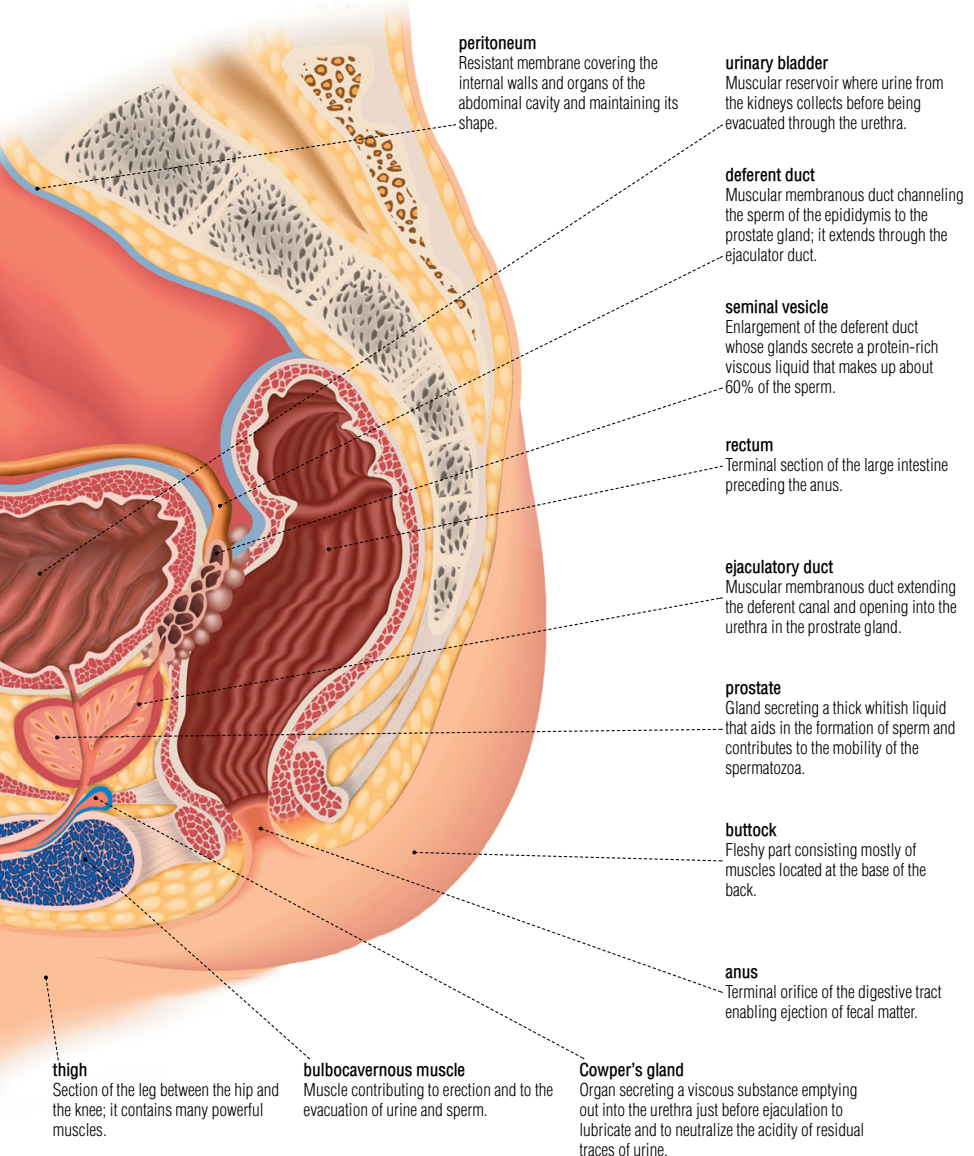
glans penis

Bulging anterior terminal portion of the penis consisting of a spongy body; it is surrounded by the prepuce and is where the meatus of the urethra opens.

prepuce

Cutaneous fold covering the glans penis.





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.

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.

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

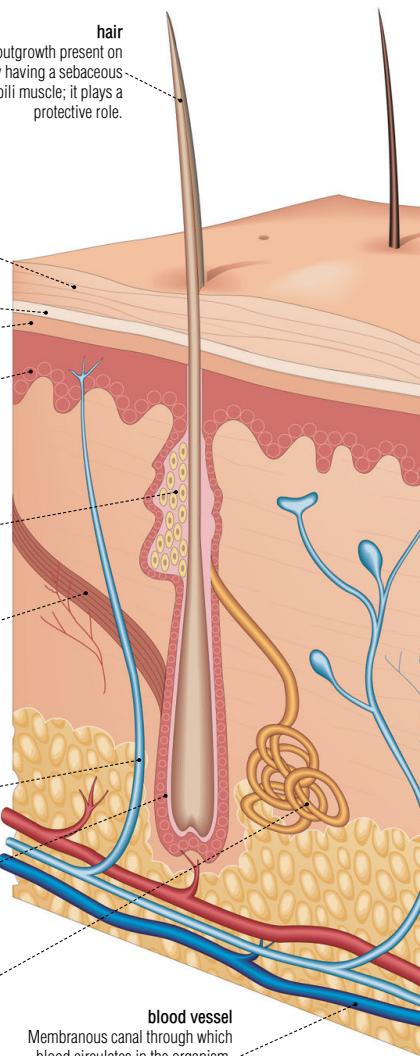
Layer of the epidermis consisting of dead cells rich in keratin (the protein that protects the skin); it is shed as a new layer is formed.

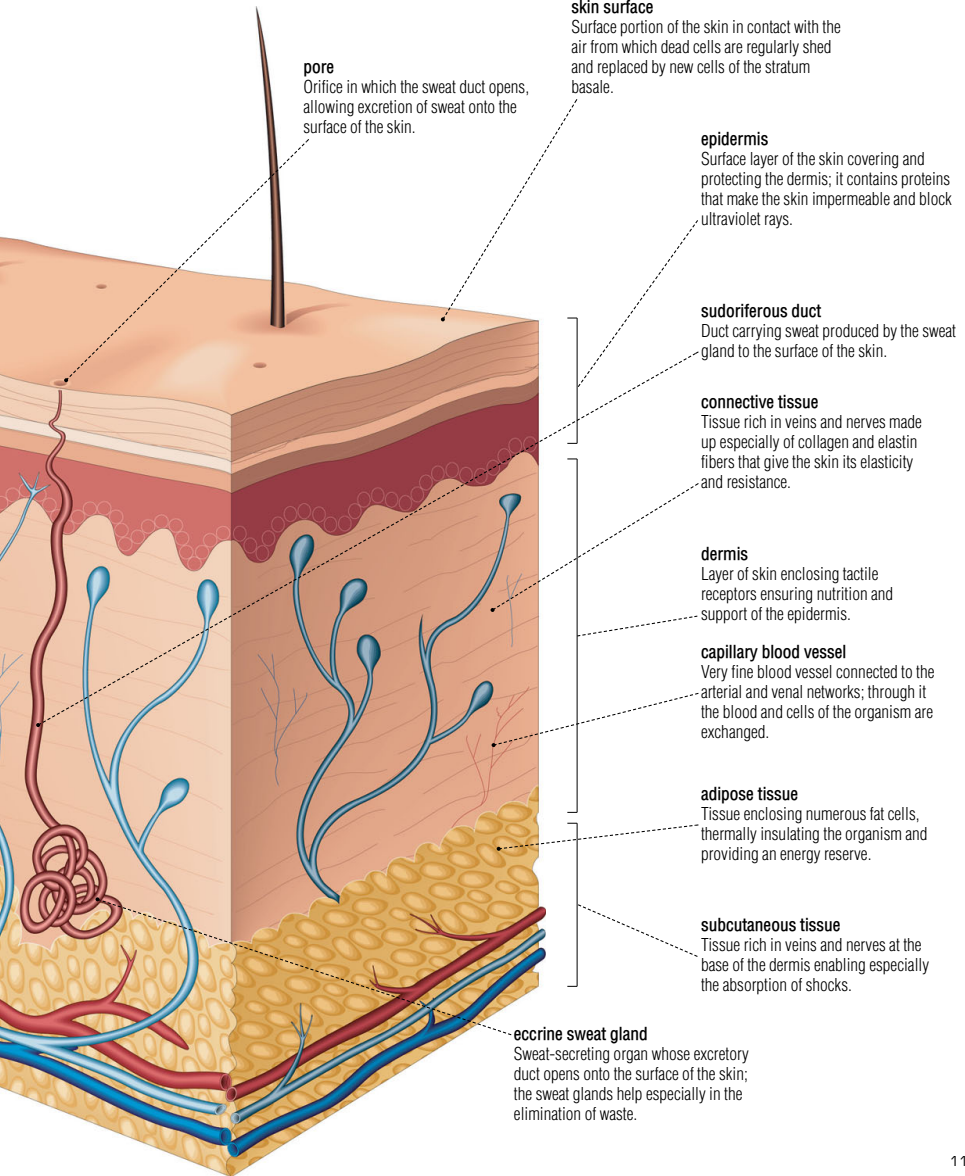
apocrine sweat gland

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.

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.

triangular fossa

Small depression located in the upper portion of the helix between its two branches.

helix

Protruding fold of the auricle of the ear extending from the concha to the lobe.

crus of helix

Front portion of the helix beginning at the base of the concha.

antihelix

Protuberance parallel to and inside the helix dividing into two branches in its upper section.

anterior notch

Deep depression separating the helix from the tragus.

concha

Deep cavity of the auricle of the ear above the antitragus; the acoustic meatus opens into it.

acoustic meatus

Opening through which sounds collected by the auricle reach the tympanic cavity.

antitragus

Small triangular protuberance at the terminal end of the antihelix.

tail of helix

Terminal end of the helix extending to the upper portion of the lobe.

intertragic notch

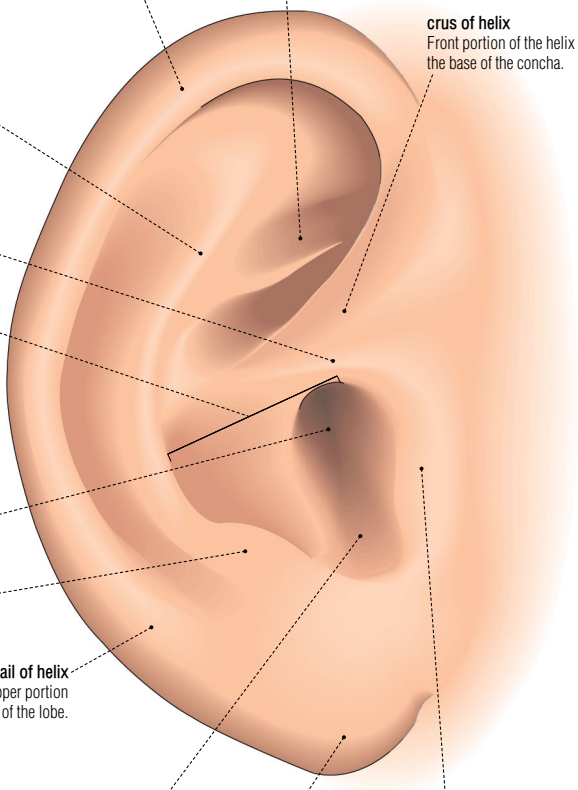
Deep depression at the base of the acoustic meatus between the antitragus and the tragus.

earlobe

Fleshy extension of the lower section of the auricle; it plays no role in hearing.

tragus

Flat triangular protuberance located in front of the acoustic meatus, protecting especially the concha.



hearing

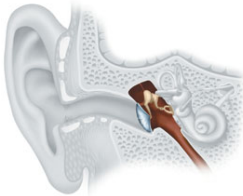
structure of the ear

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



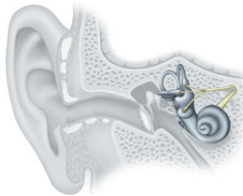
external ear

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 auricles and transmits them to the internal ear.

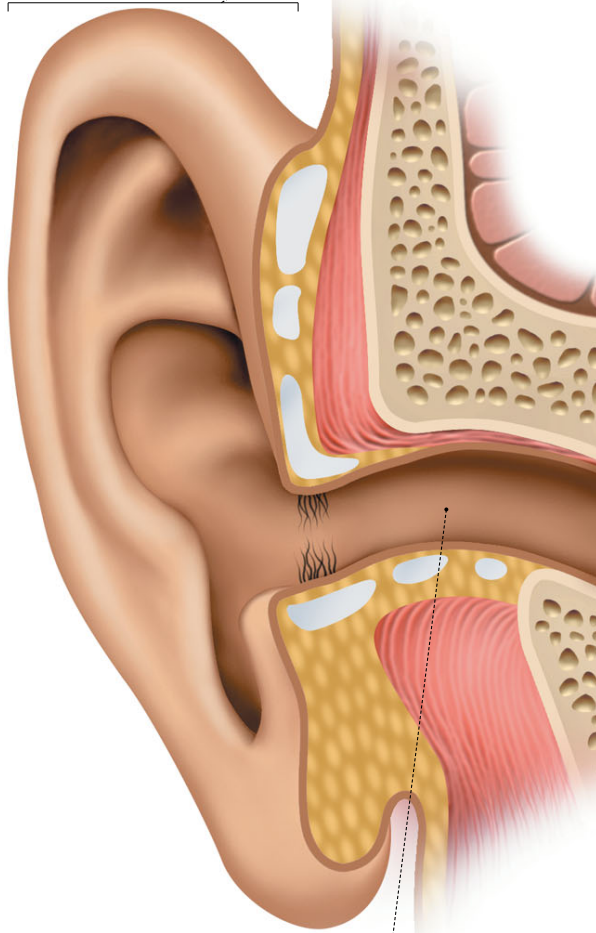


internal ear

Liquid-filled cavity hollowed out of the temporal bone that transforms sound vibrations into nerve influxes 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

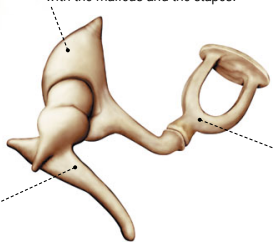
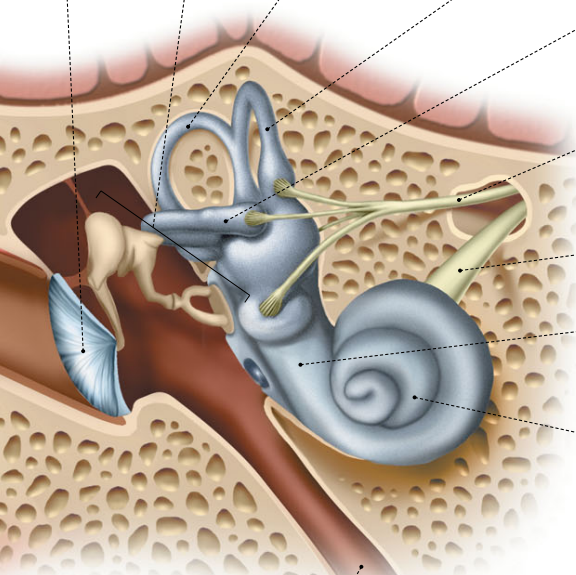
Auricle of the middle ear articulating with the malleus and the stapes.

malleus

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

stapes

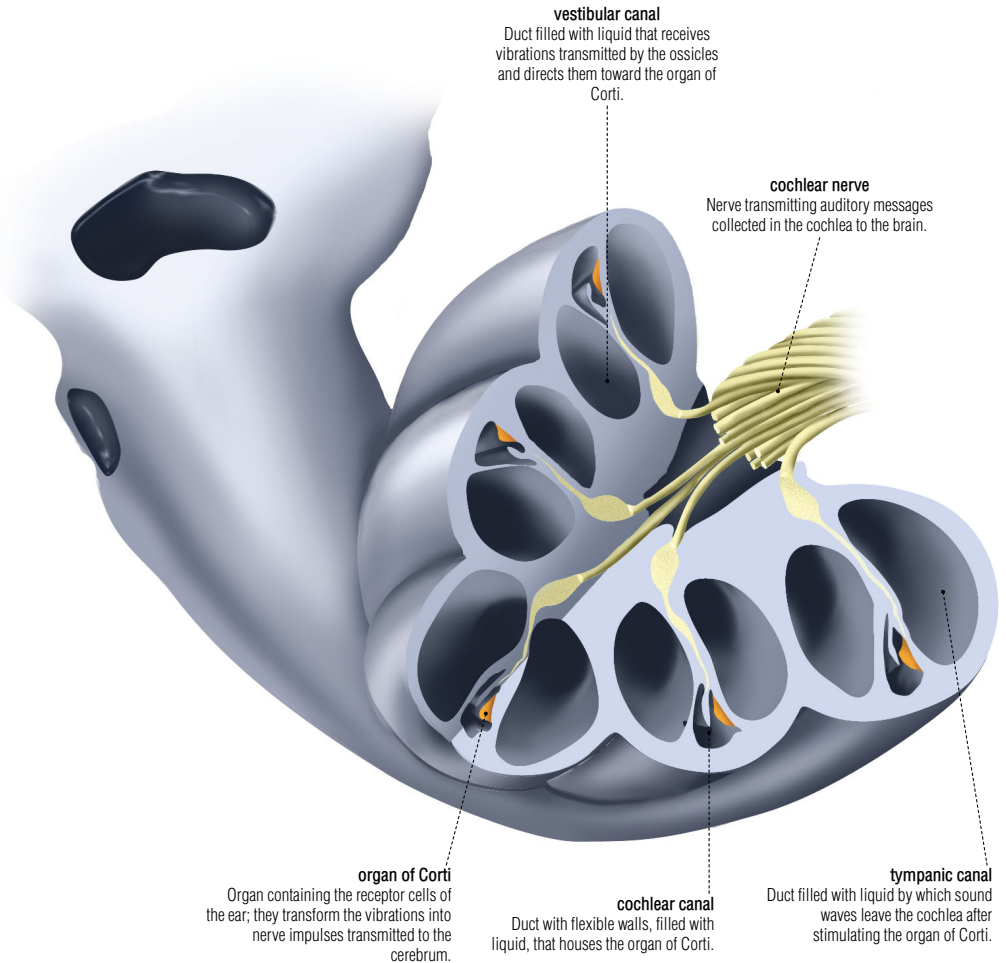
Auricle of the middle ear transmitting vibrations from the incus to the internal ear; at about .15 in long, the stapes is the smallest bone in the body.



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.

**vestibular canal**

Duct filled with liquid that receives vibrations transmitted by the ossicles and directs them toward the organ of Corti.

cochlear nerve

Nerve transmitting auditory messages collected in the cochlea to the brain.

organ of Corti

Organ containing the receptor cells of the ear; they transform the vibrations into nerve impulses transmitted to the cerebrum.

cochlear canal

Duct with flexible walls, filled with liquid, that houses the organ of Corti.

tympanic canal

Duct filled with liquid by which sound waves leave the cochlea after stimulating the organ of Corti.

auditory cortex

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

primary auditory cortex

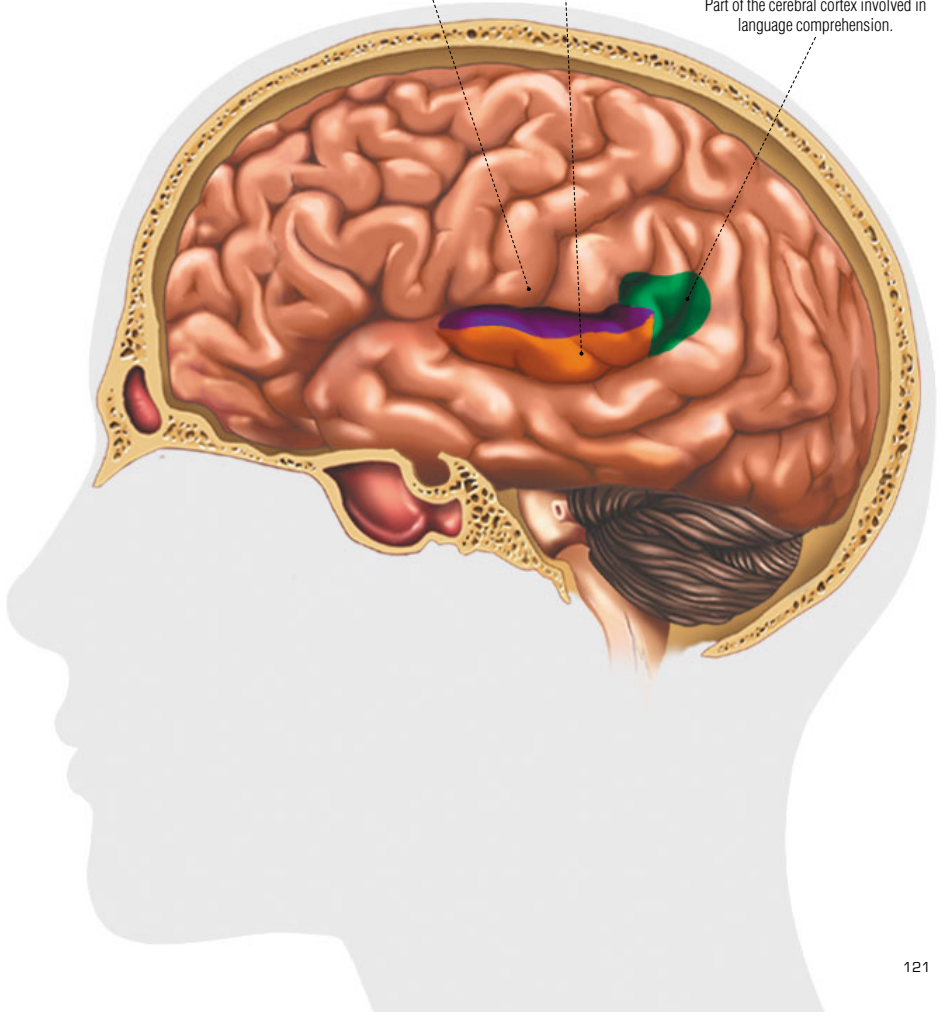
Part of the auditory cortex that is the seat of precise representations of sounds.

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.

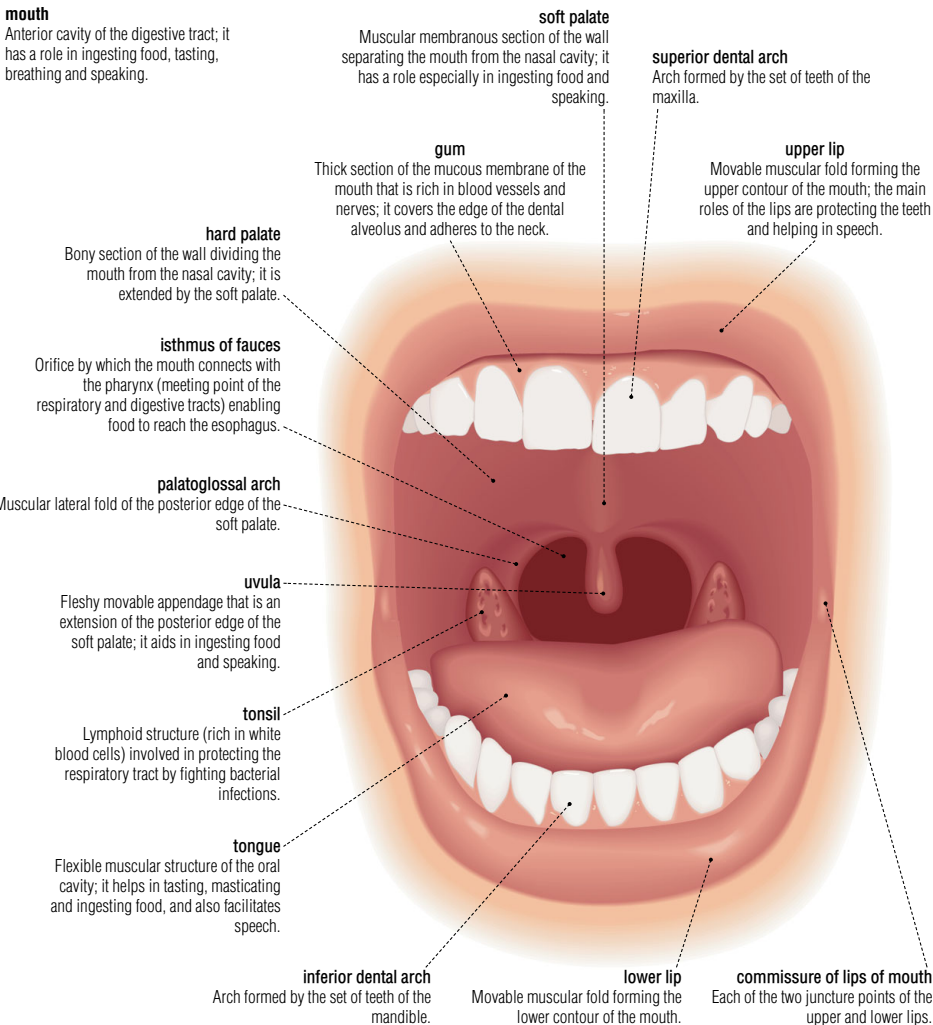


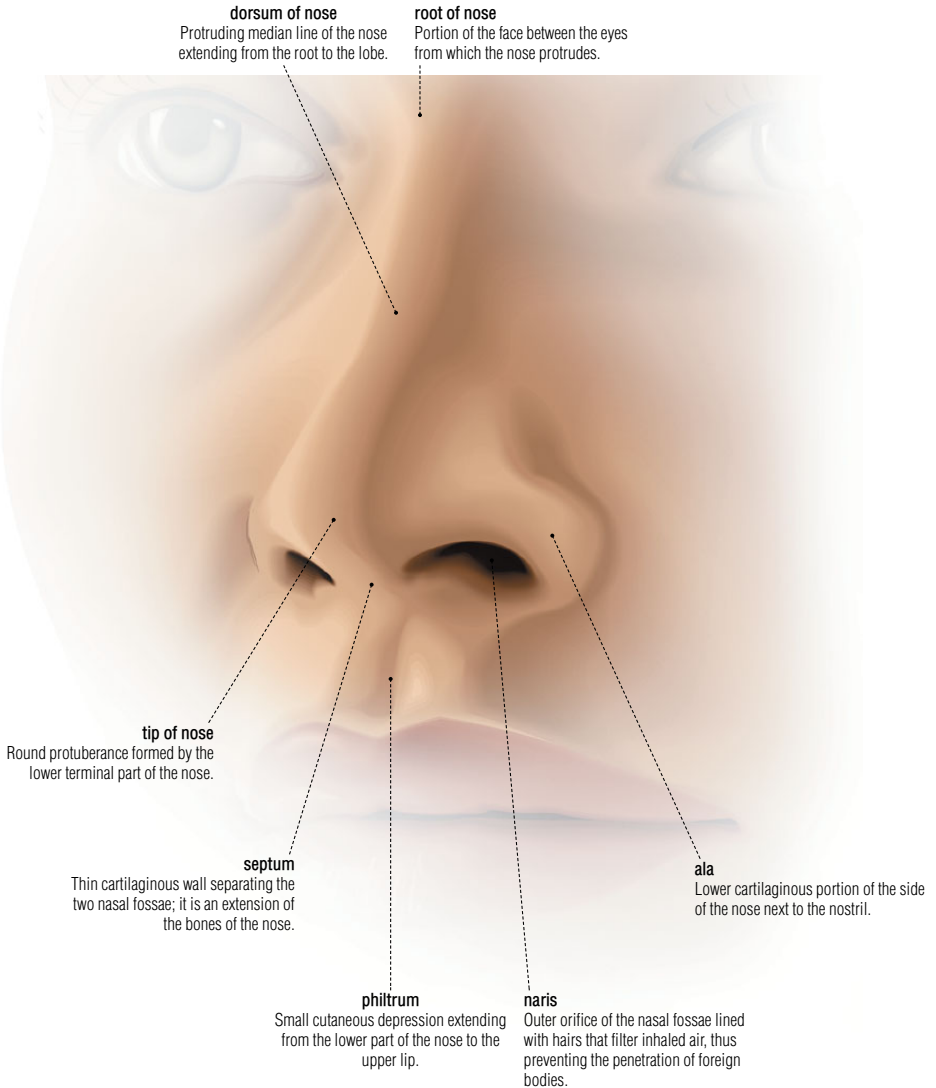
smell and taste

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.





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

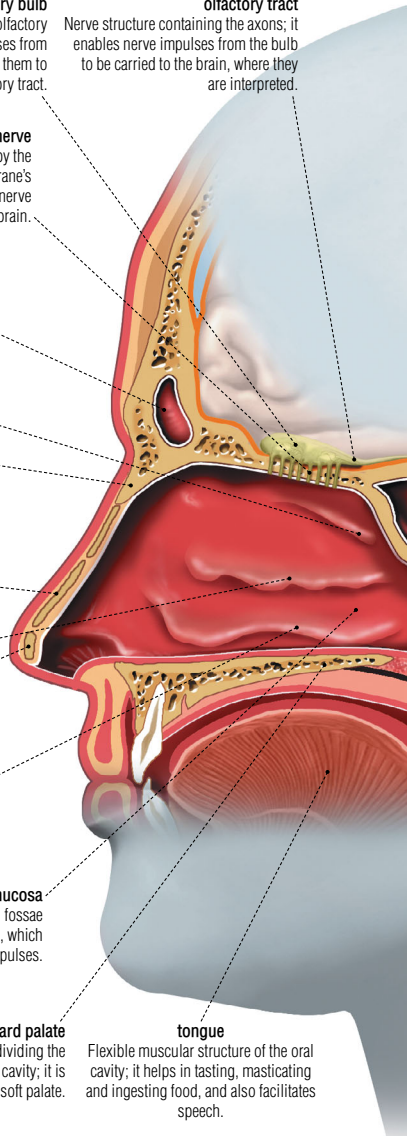
Tissue lining a portion of the nasal fossae and containing olfactory cells, which detect odors and release nerve impulses.

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

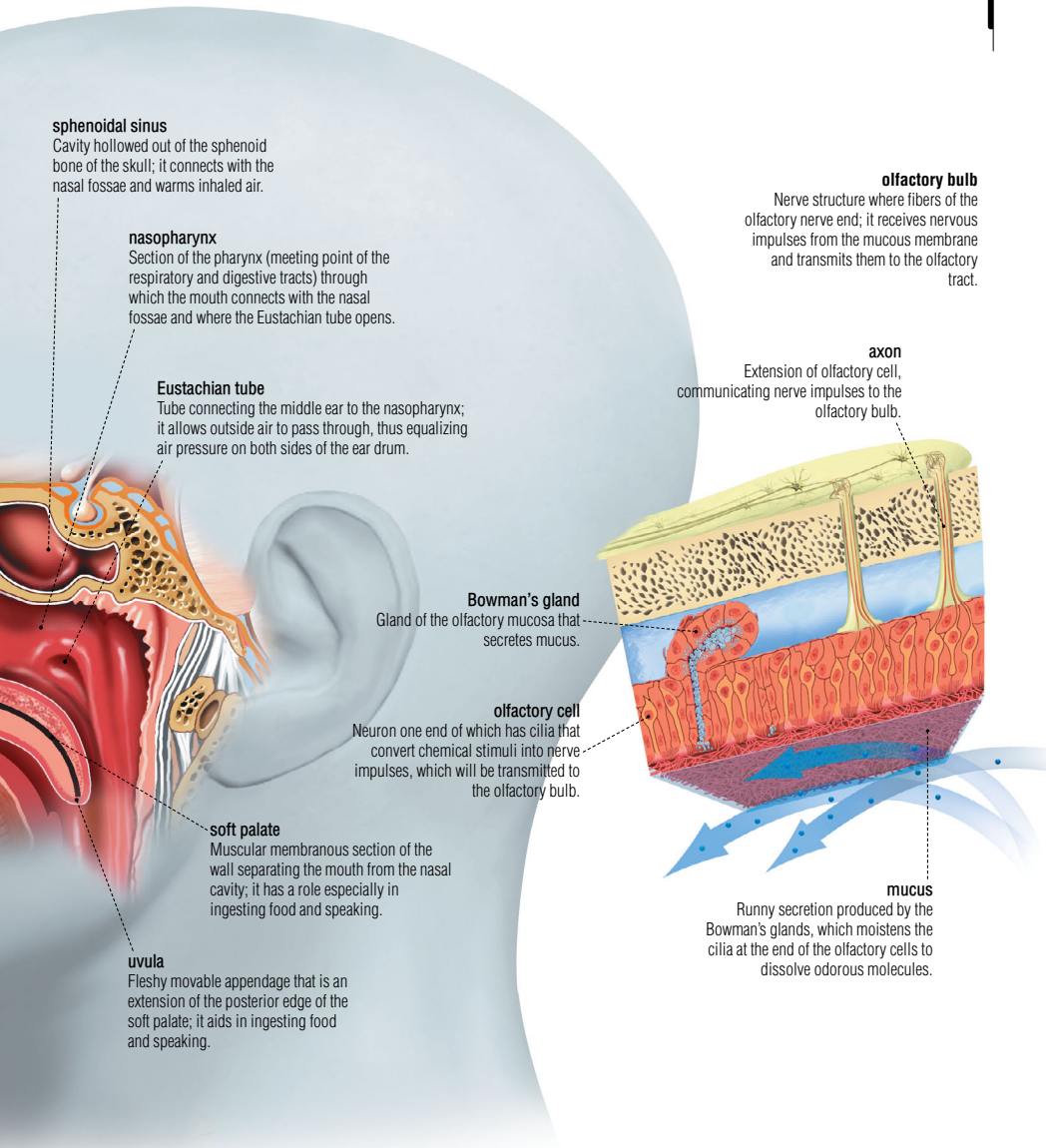
Gland of the olfactory mucosa that secretes mucus.

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 odor molecules.



smell and taste

dorsum of tongue

epiglottis
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.

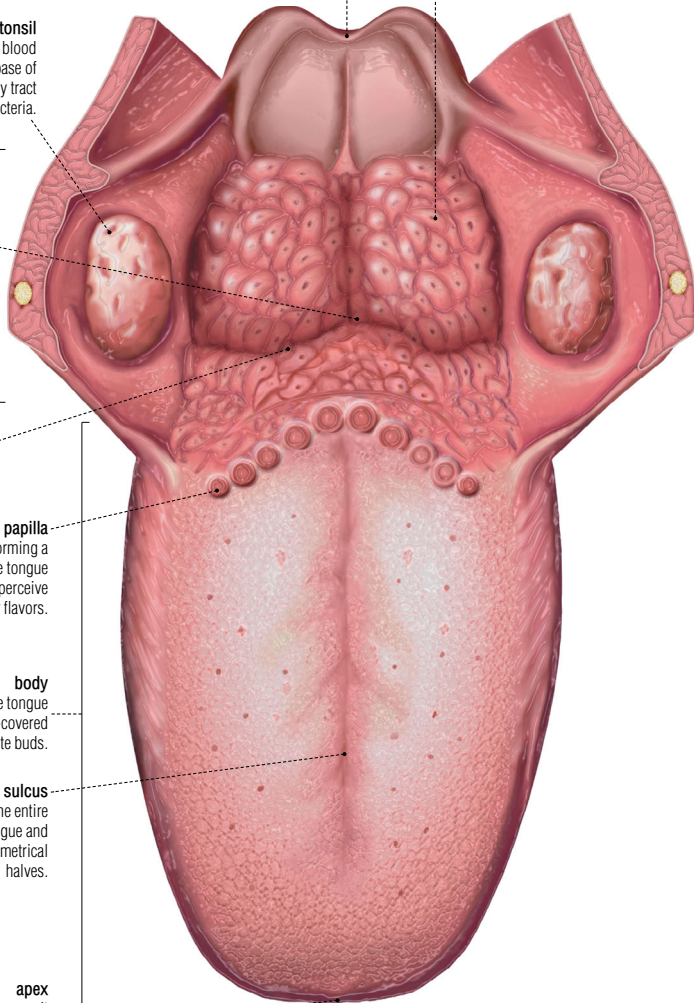
sulcus terminalis
Inverted V-shaped depression separating the base of the body of the tongue, topped by the foramen cecum.

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

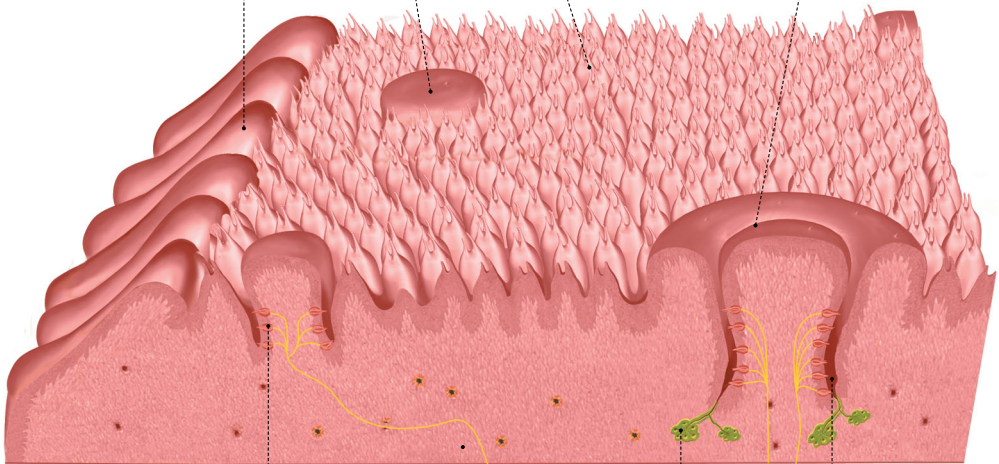
Taste bud located mainly on the posterior lateral edges of the tongue and having a taste function; it is most sensitive to sour flavors.

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

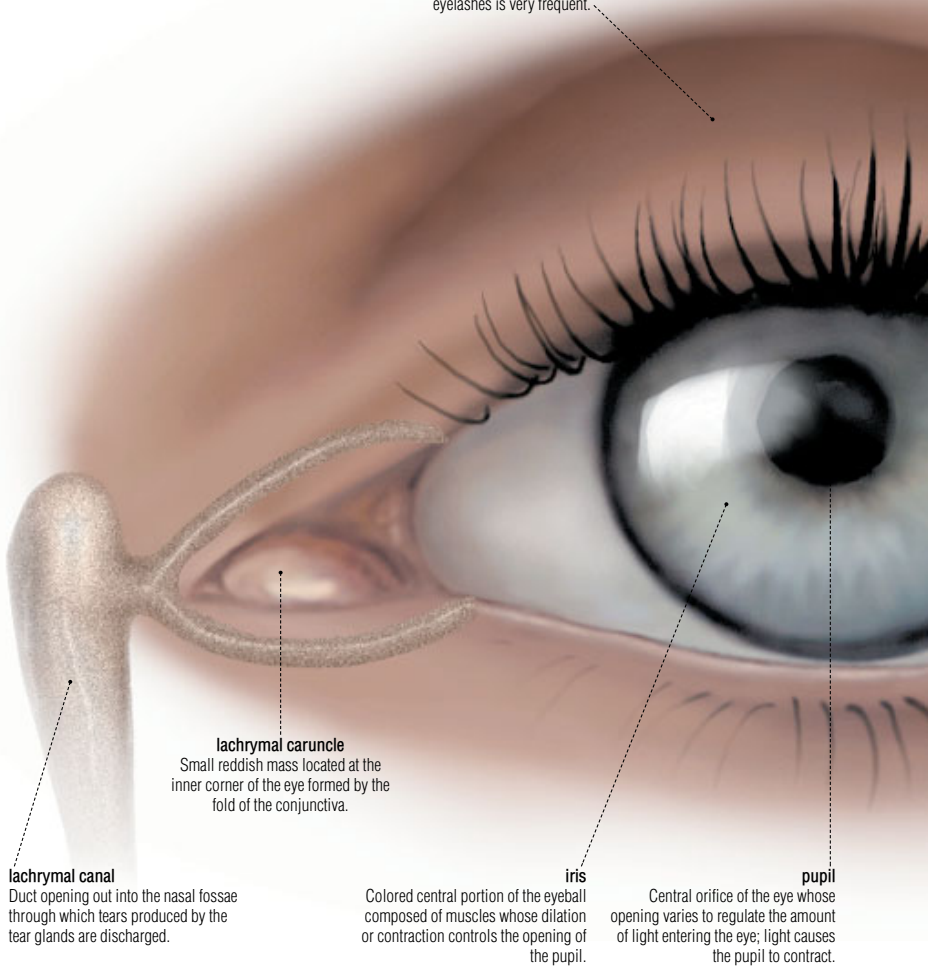
The human being possesses a highly developed visual sensitivity, far superior to that of the other senses.

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 canal**

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

lachrymal caruncle

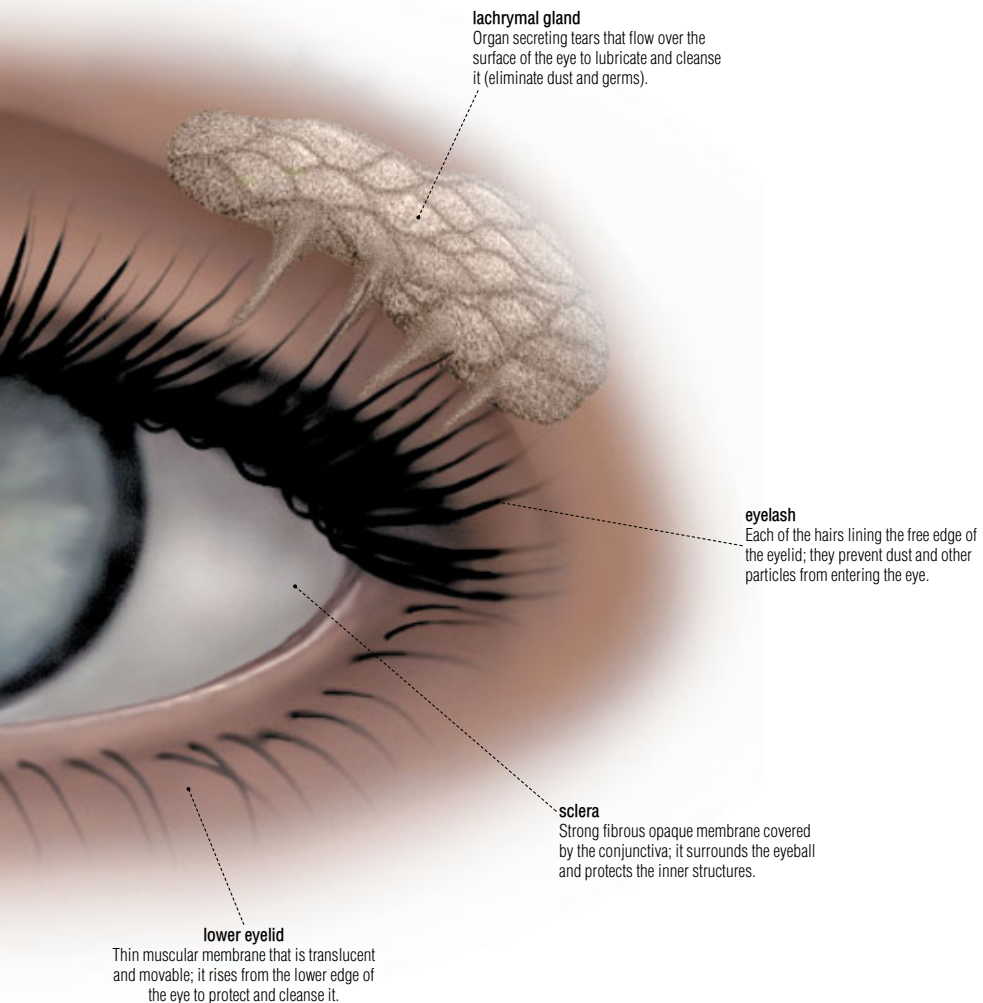
Small reddish mass located at the inner corner of the eye formed by the fold of the conjunctiva.

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.

**lachrymal gland**

Organ secreting tears that flow over the surface of the eye to lubricate and cleanse it (eliminate dust and germs).

eyelash

Each of the hairs lining the free edge of the eyelid; they prevent dust and other particles from entering the eye.

sclera

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

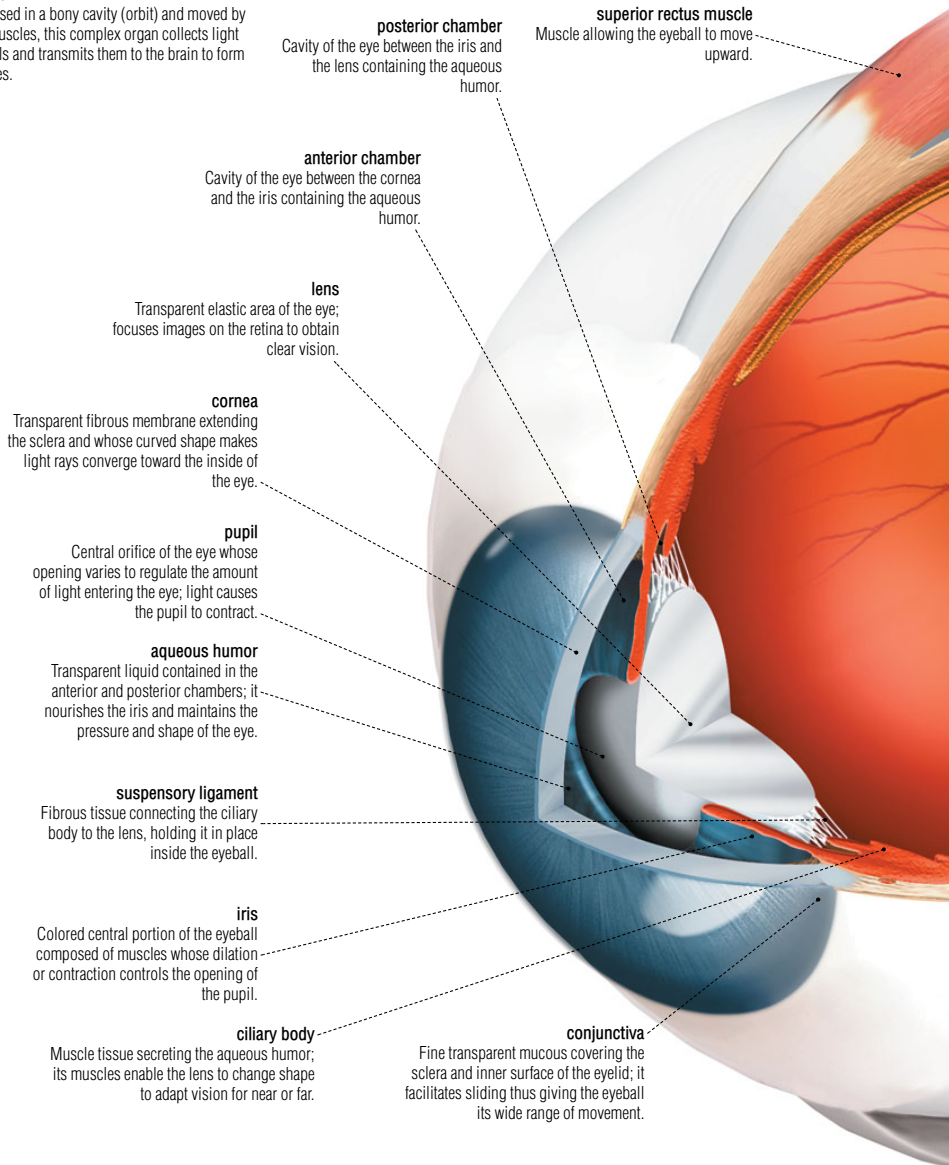
lower eyelid

Thin muscular membrane that is translucent and movable; it rises from the lower edge of the eye to protect and cleanse it.

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

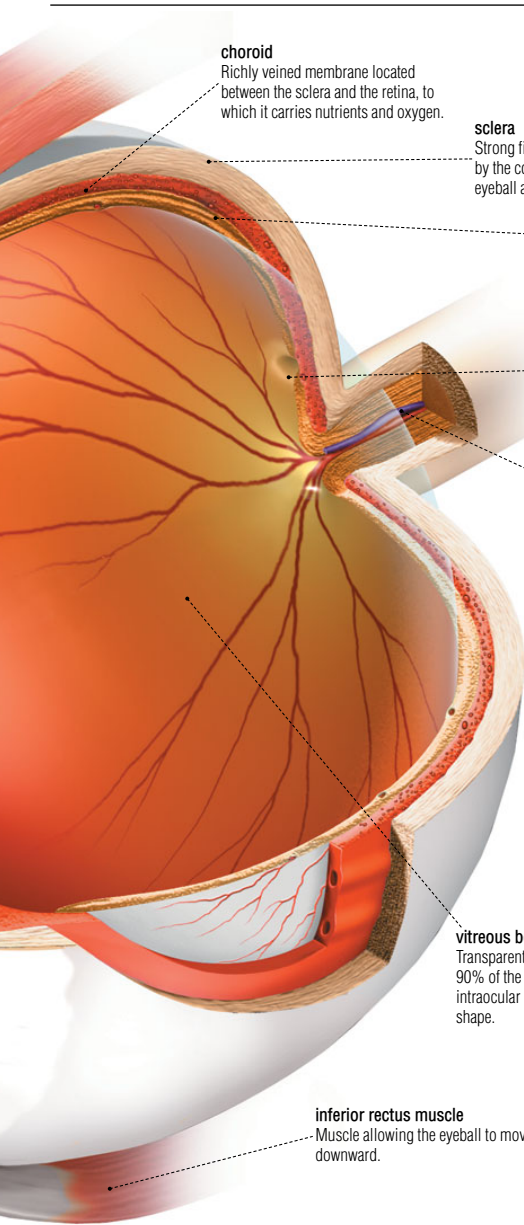
Colored central portion of the eyeball composed of muscles whose dilation or contraction controls the opening of the pupil.

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

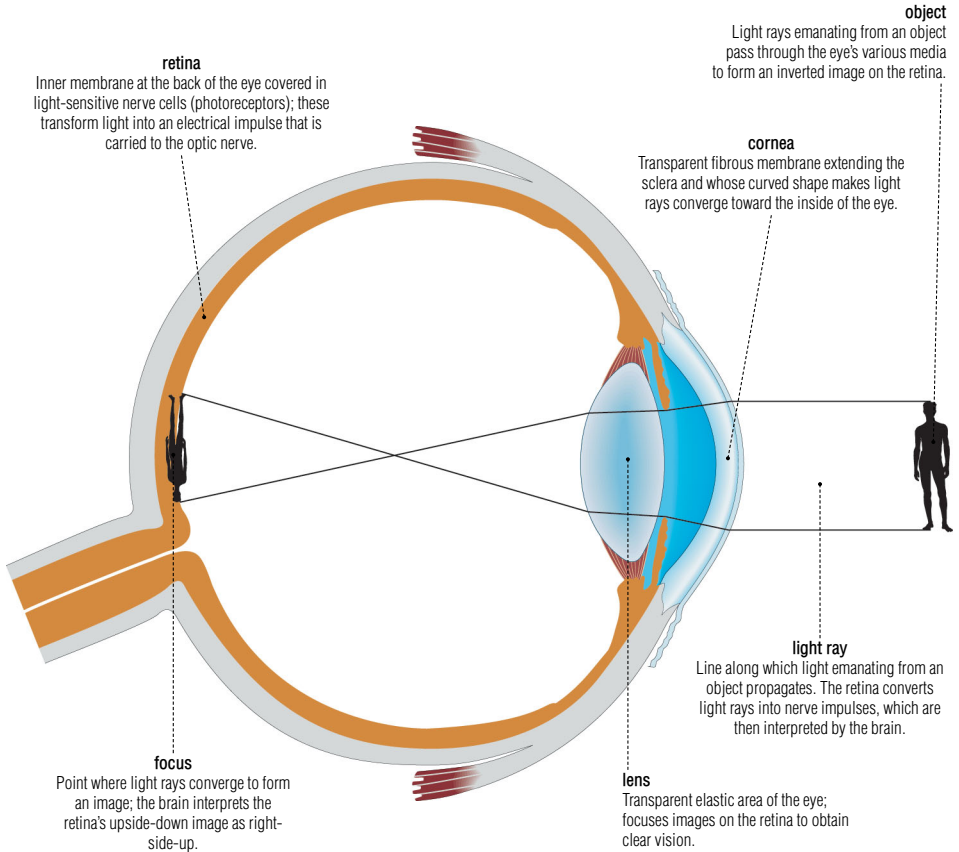
Photoreceptor active in dim light and responsible for night vision (in black and white).



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.



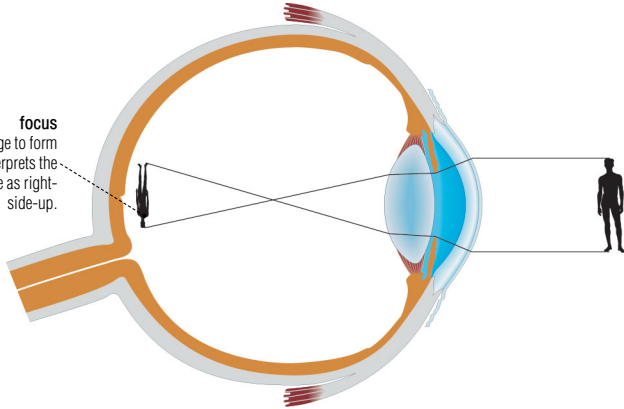
vision defects

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

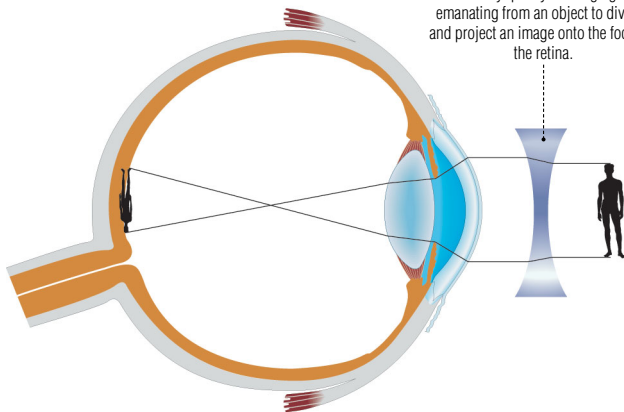
myopia

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.

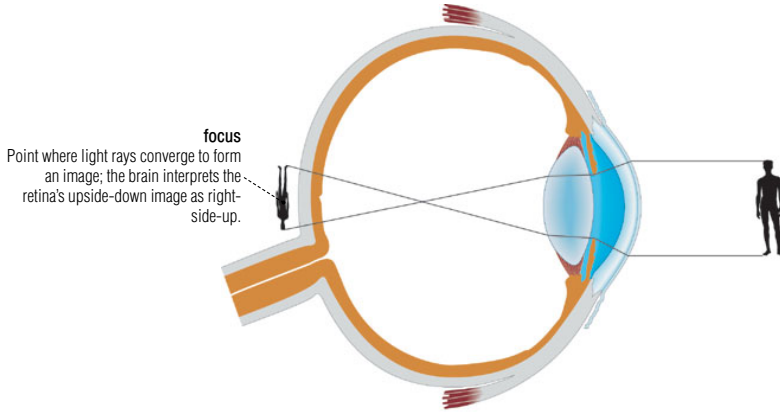
**concave lens**

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

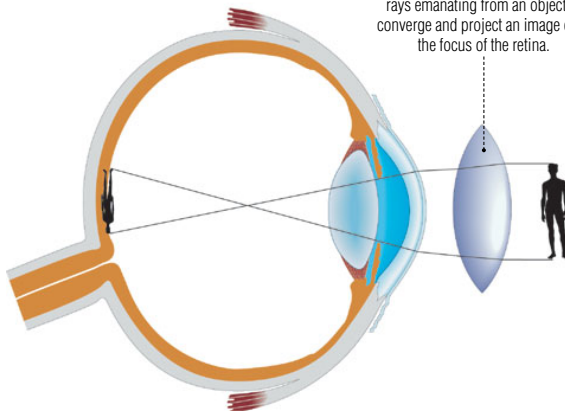


hyperopia

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.

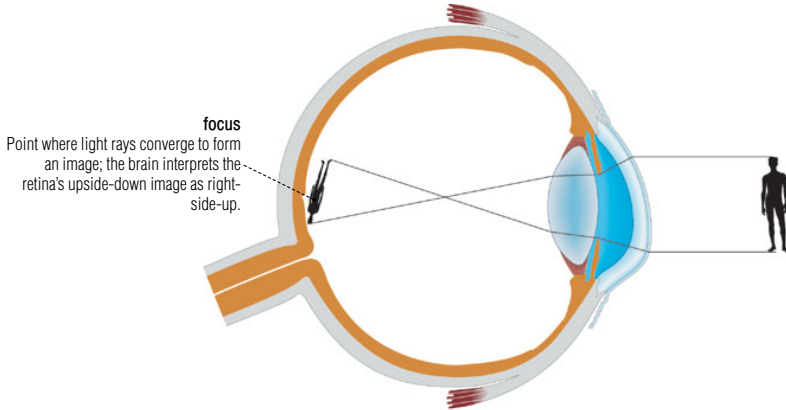
**convex lens**

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

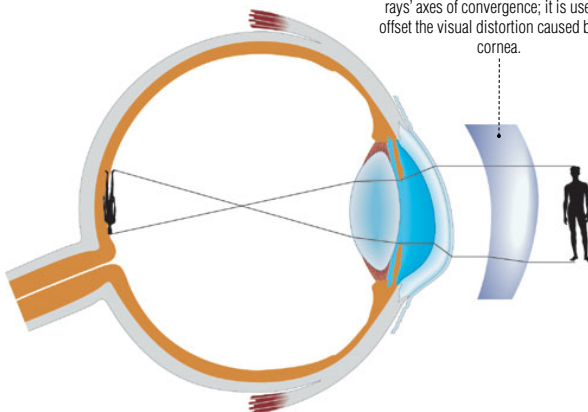


astigmatism

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.

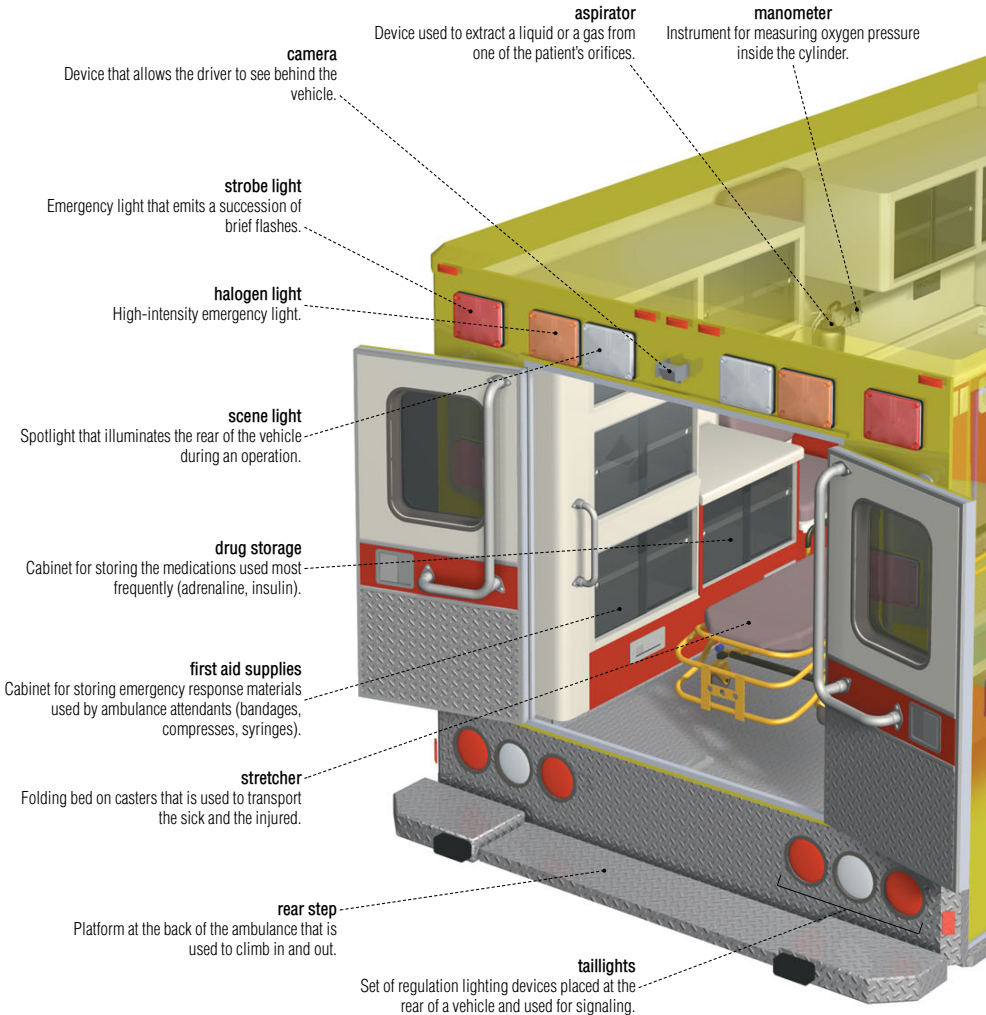
**toric lens**

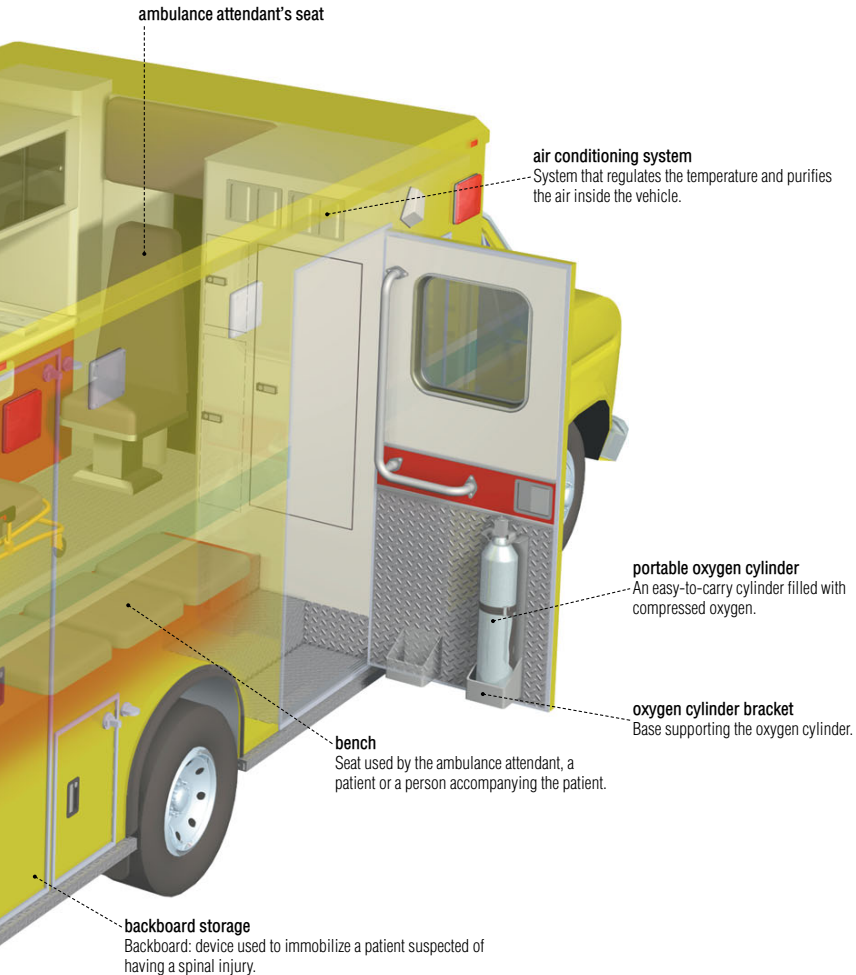
Has various powers depending on the rays' axes of convergence; it is used to offset the visual distortion caused by the cornea.



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.

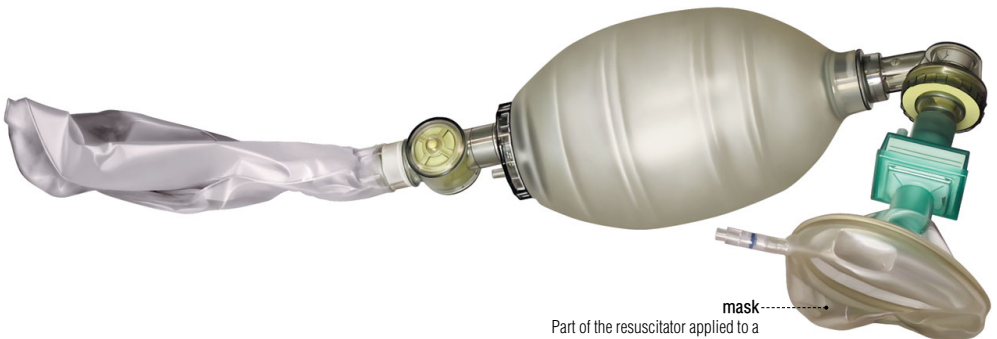


oropharyngeal airway

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.



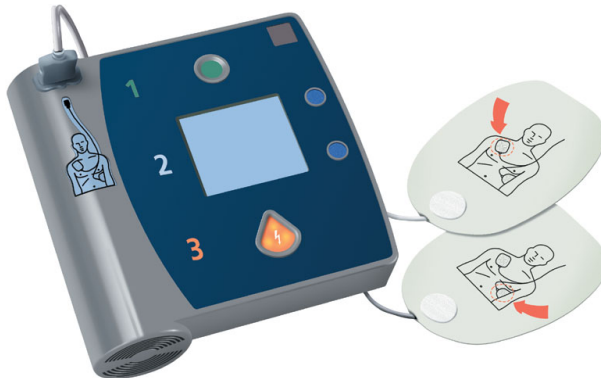
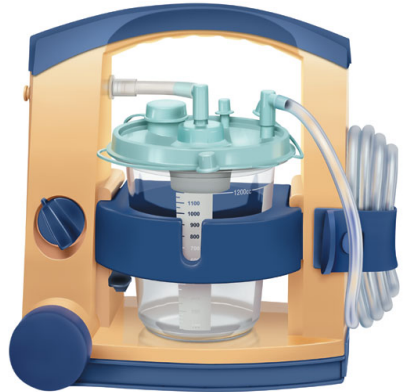
mask.....
Part of the resuscitator applied to a person's nose and mouth.

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.

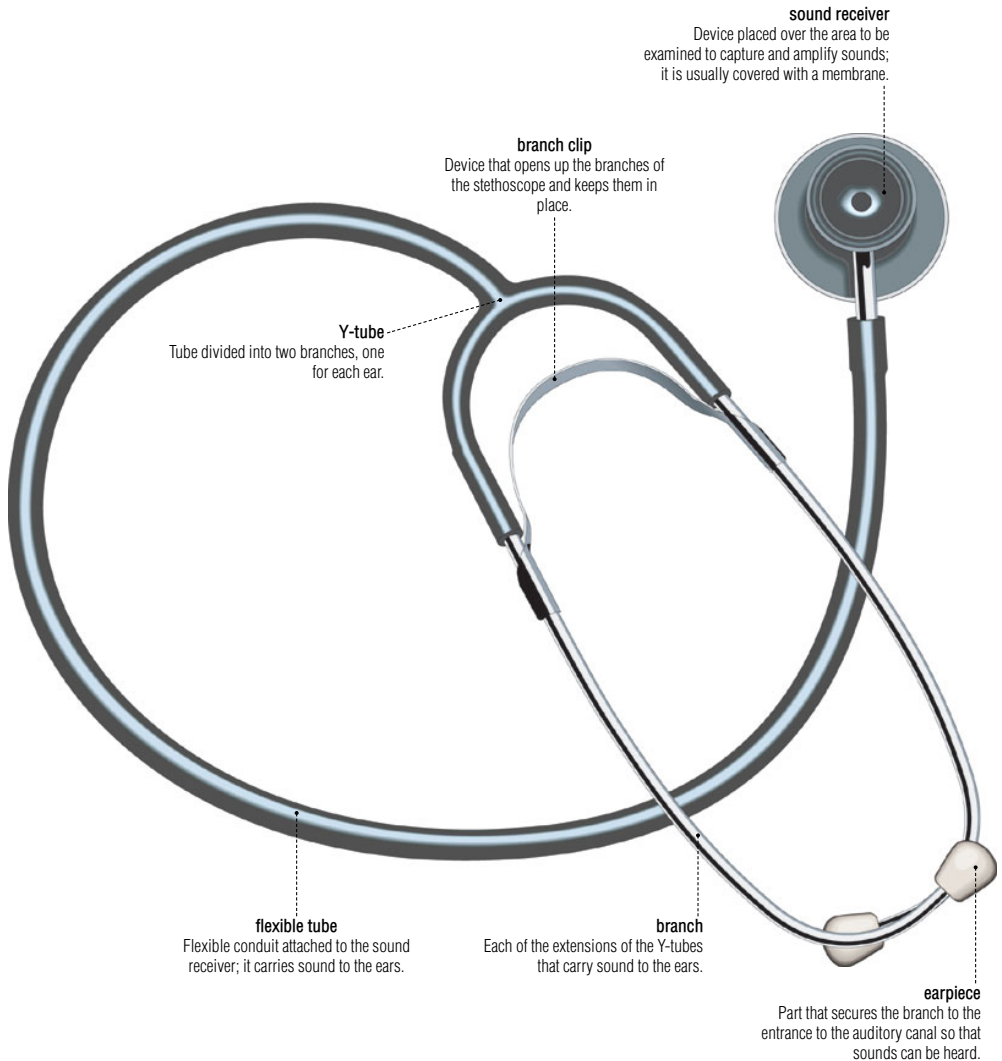
**defibrillator**

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

first aid equipment

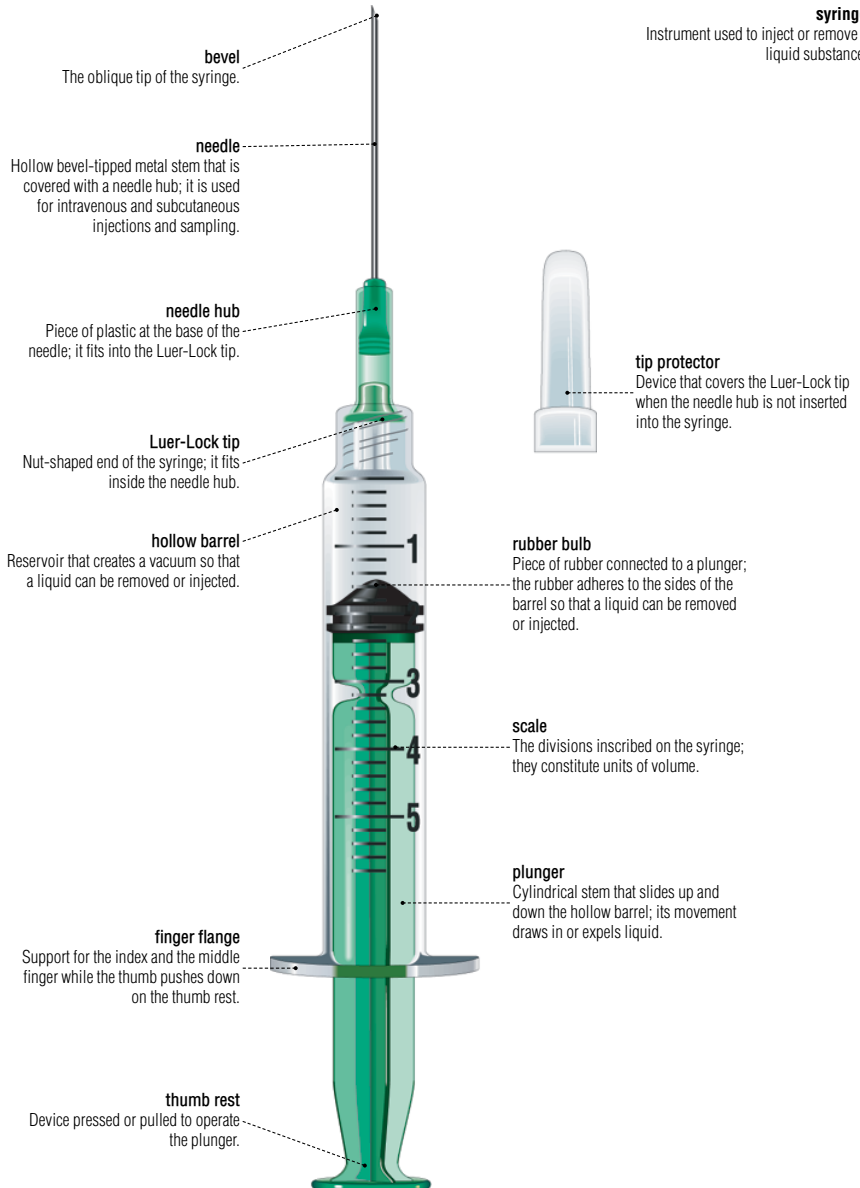
stethoscope

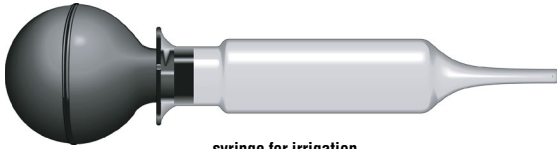
Instrument that captures and amplifies cardiac and breathing sounds.



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.

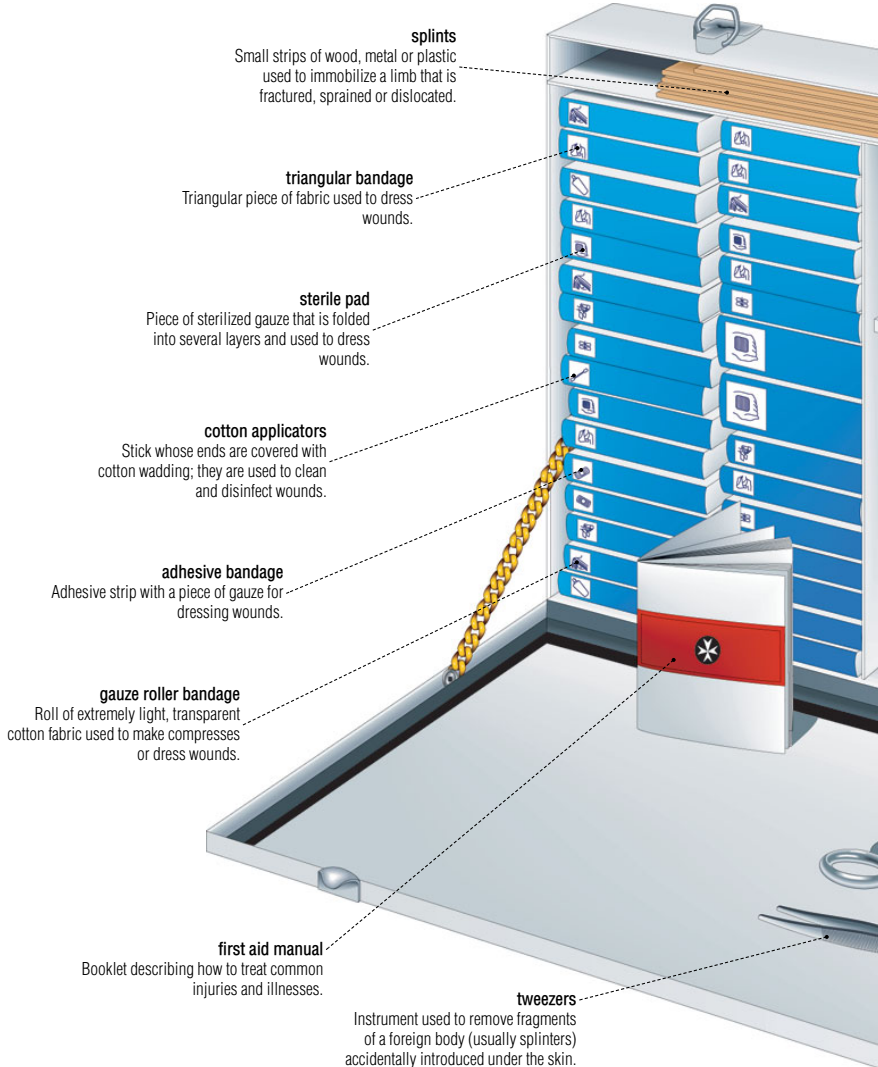
hook

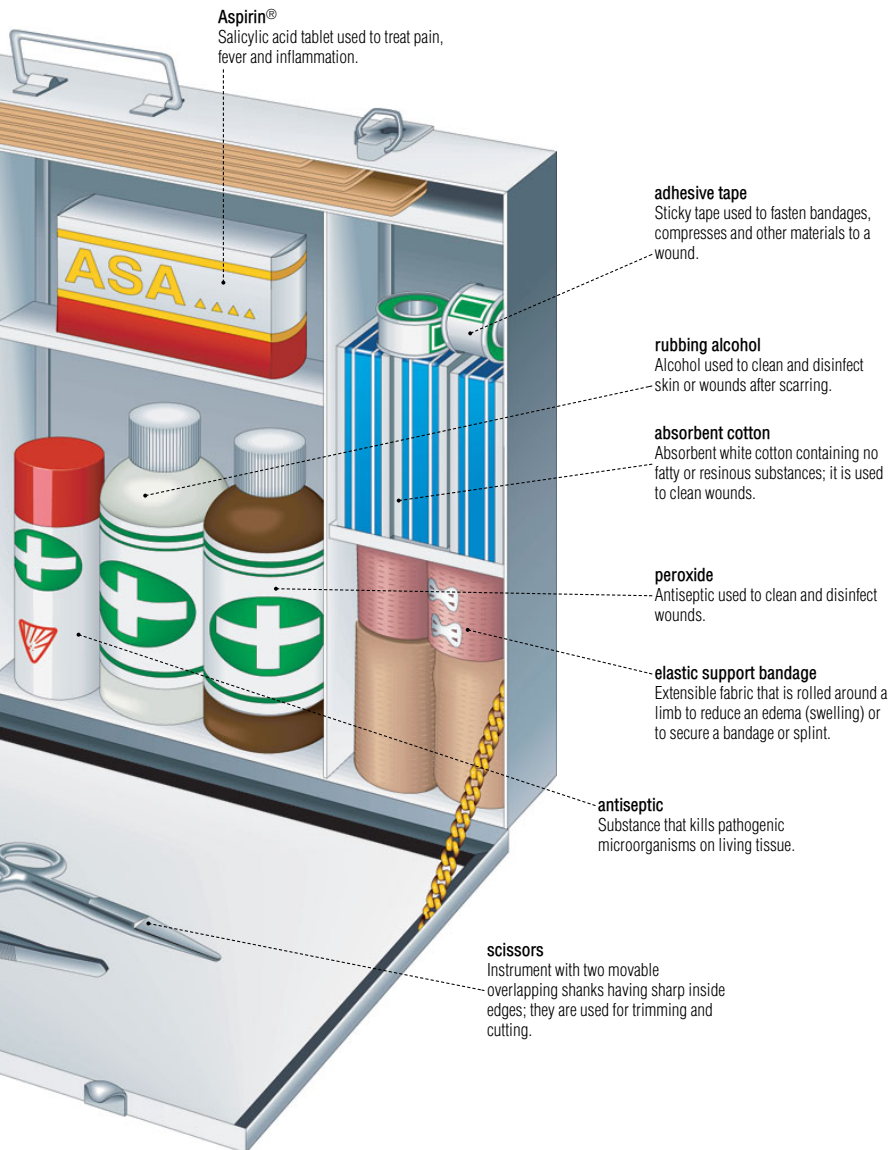
Part used to hang equipment.



first aid kit

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



**Aspirin®**

Salicylic acid tablet used to treat pain, fever and inflammation.

adhesive tape

Sticky tape used to fasten bandages, compresses and other materials to a wound.

rubbing alcohol

Alcohol used to clean and disinfect skin or wounds after scarring.

absorbent cotton

Absorbent white cotton containing no fatty or resinous substances; it is used to clean wounds.

peroxide

Antiseptic used to clean and disinfect wounds.

elastic support bandage

Extensible fabric that is rolled around a limb to reduce an edema (swelling) or to secure a bandage or splint.

antiseptic

Substance that kills pathogenic microorganisms on living tissue.

scissors

Instrument with two movable overlapping shanks having sharp inside edges; they are used for trimming and cutting.

clinical thermometers

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

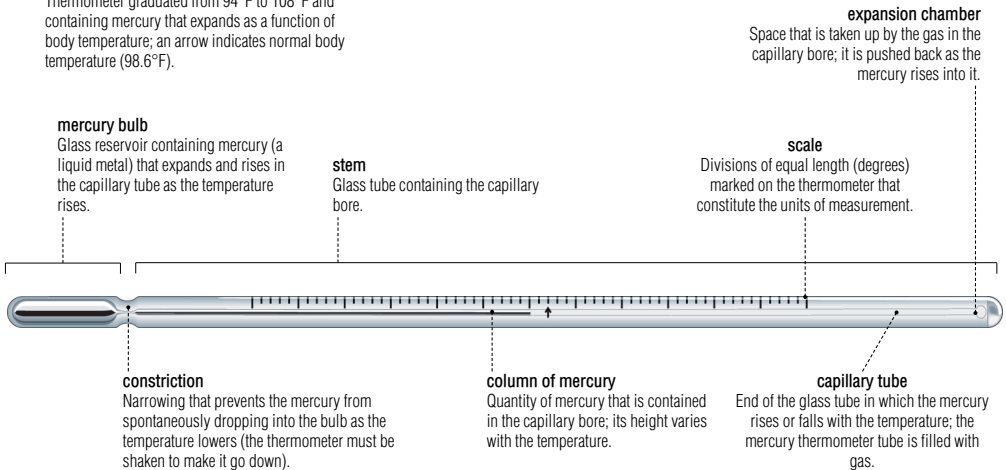
digital thermometer

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



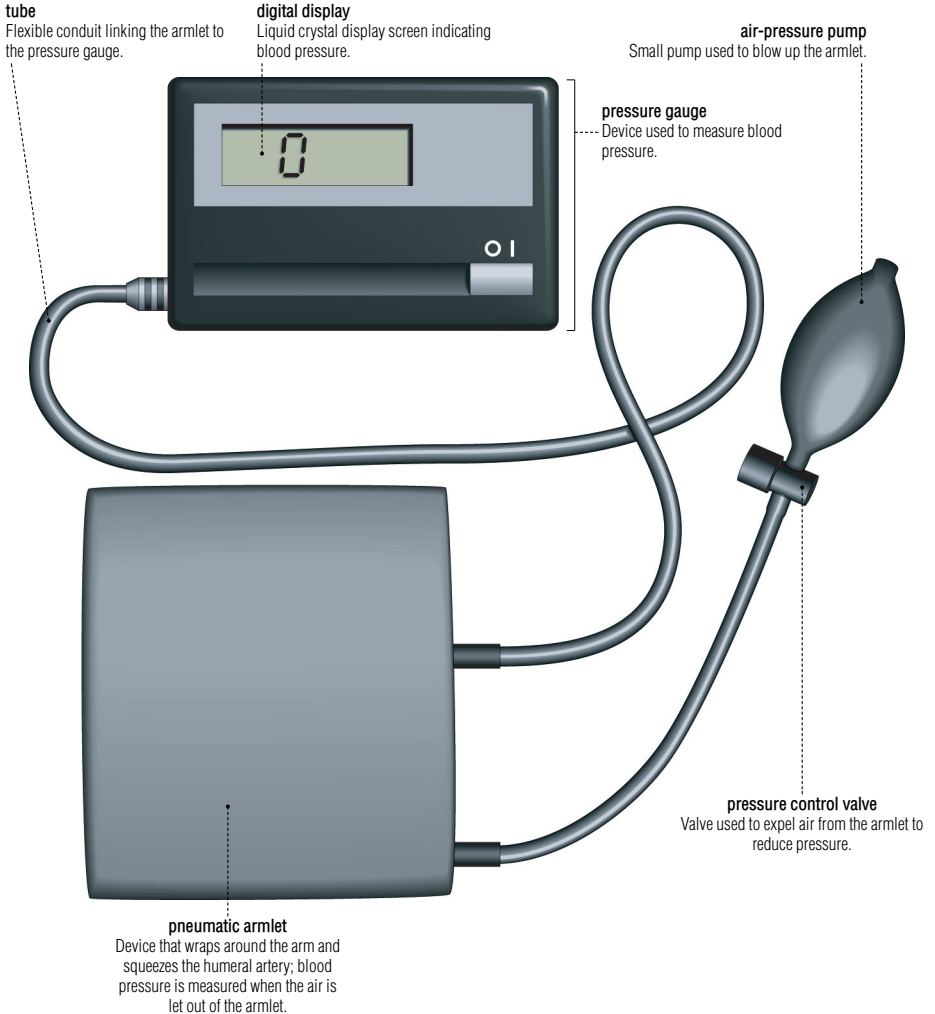
mercury thermometer

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).



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

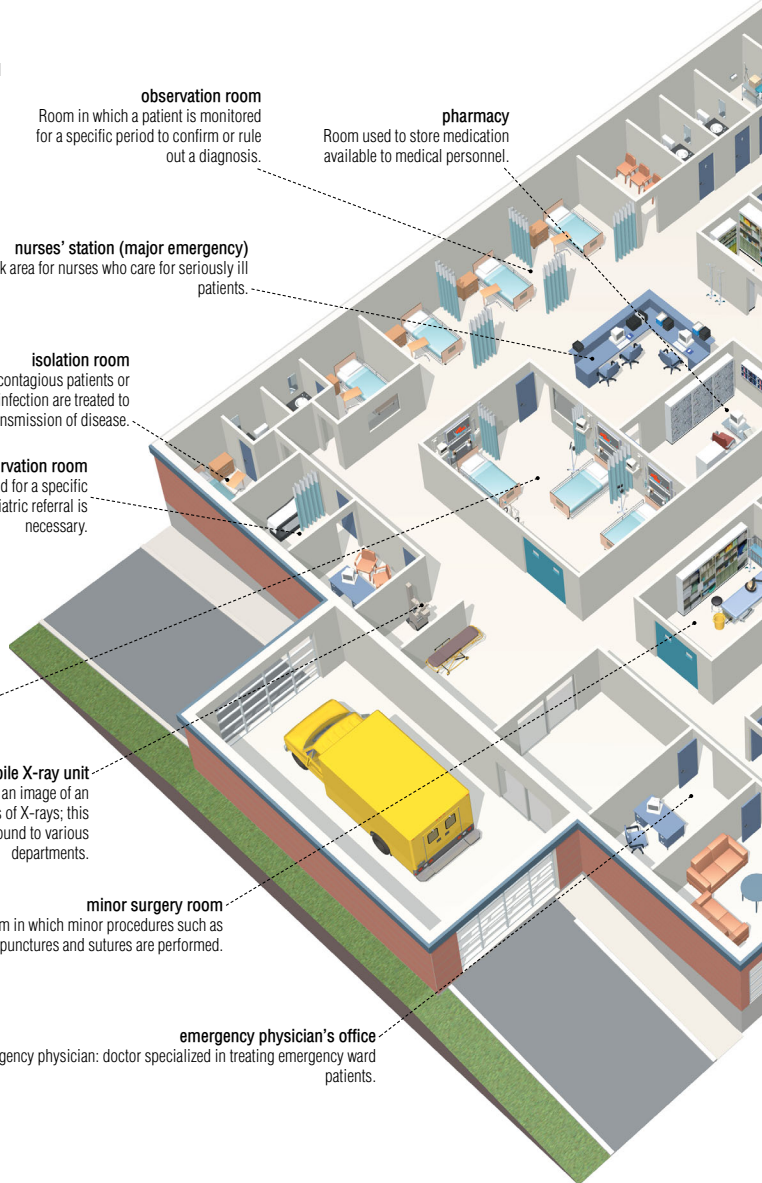
Instrument that captures an image of an internal body part by means of X-rays; this mobile unit moves around to various departments.

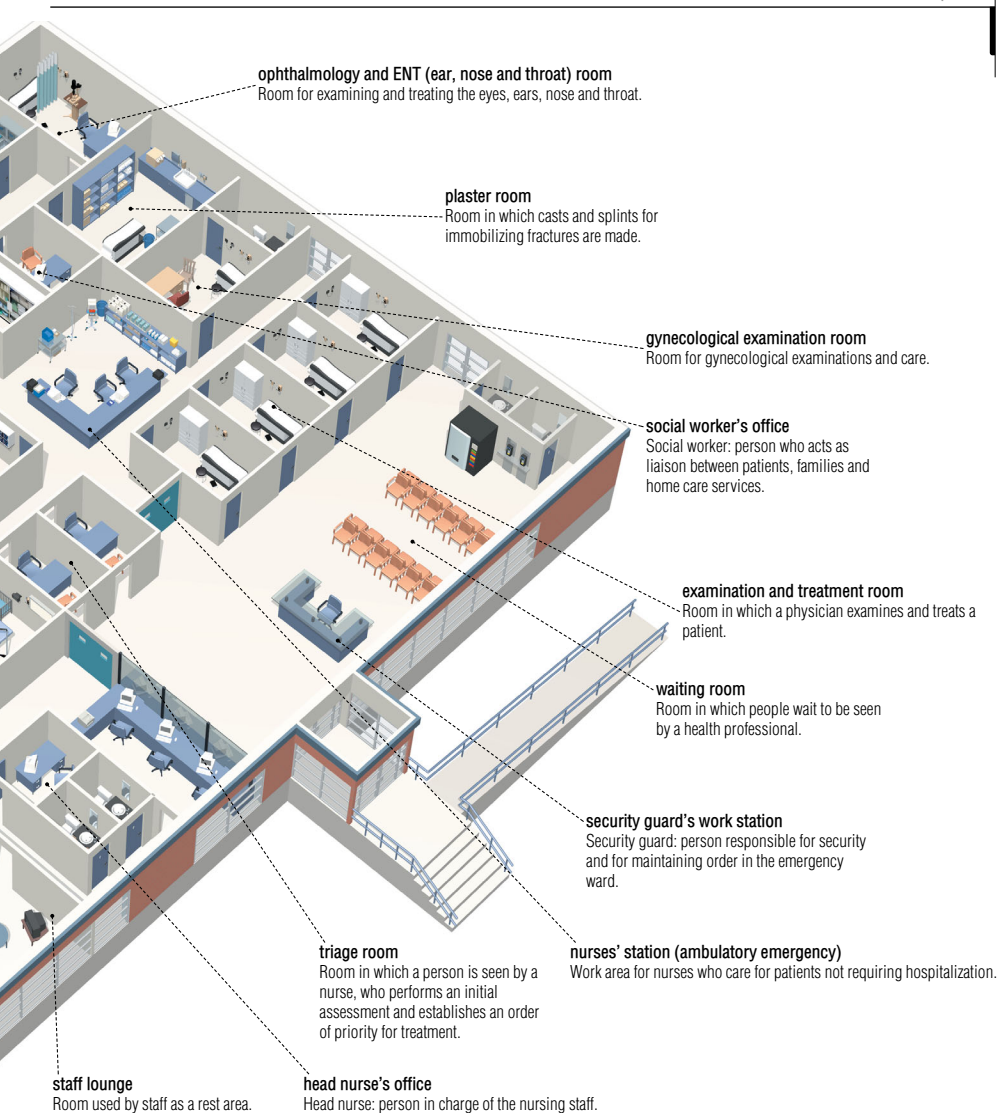
minor surgery room

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.

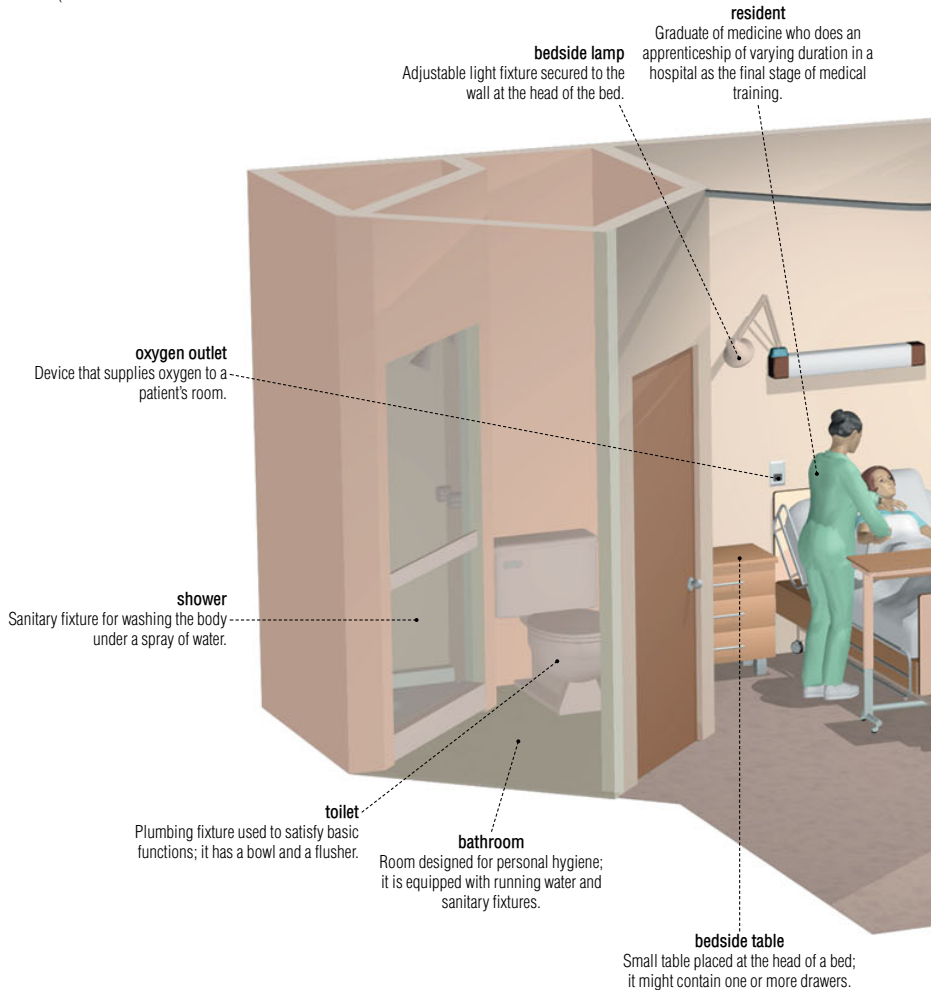




hospital

patient room

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



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

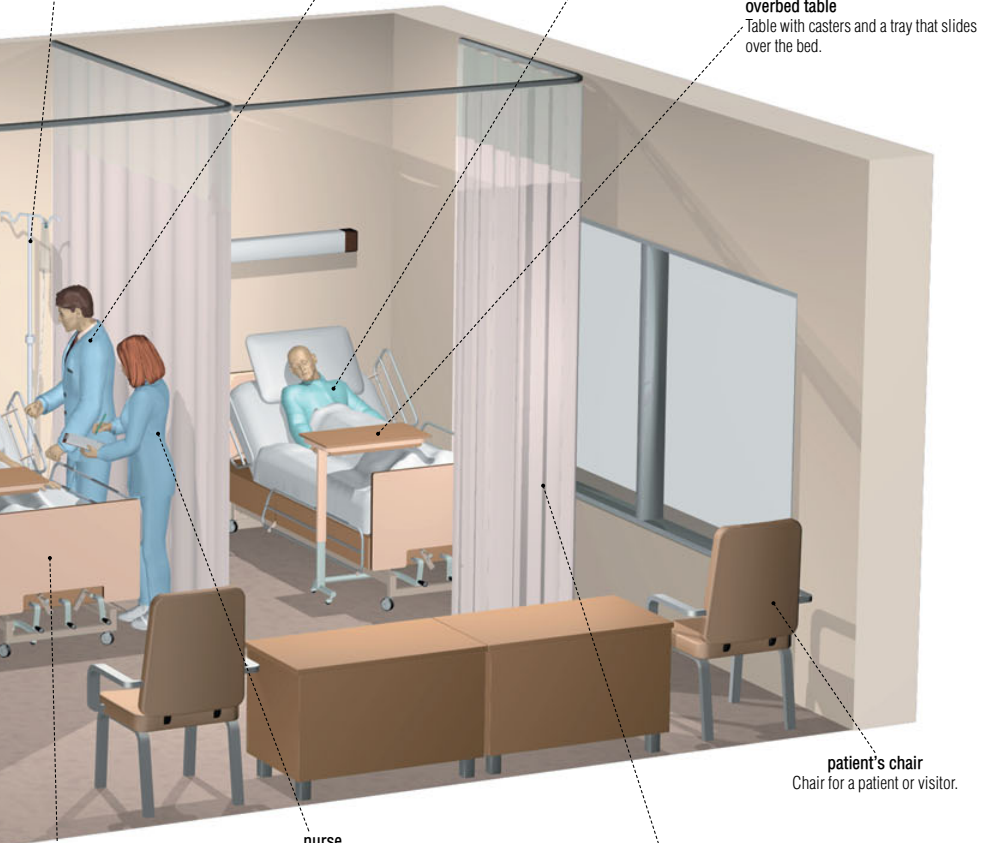
Holder of a degree in medicine, the physician establishes the diagnosis and prescribes treatment and medication.

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

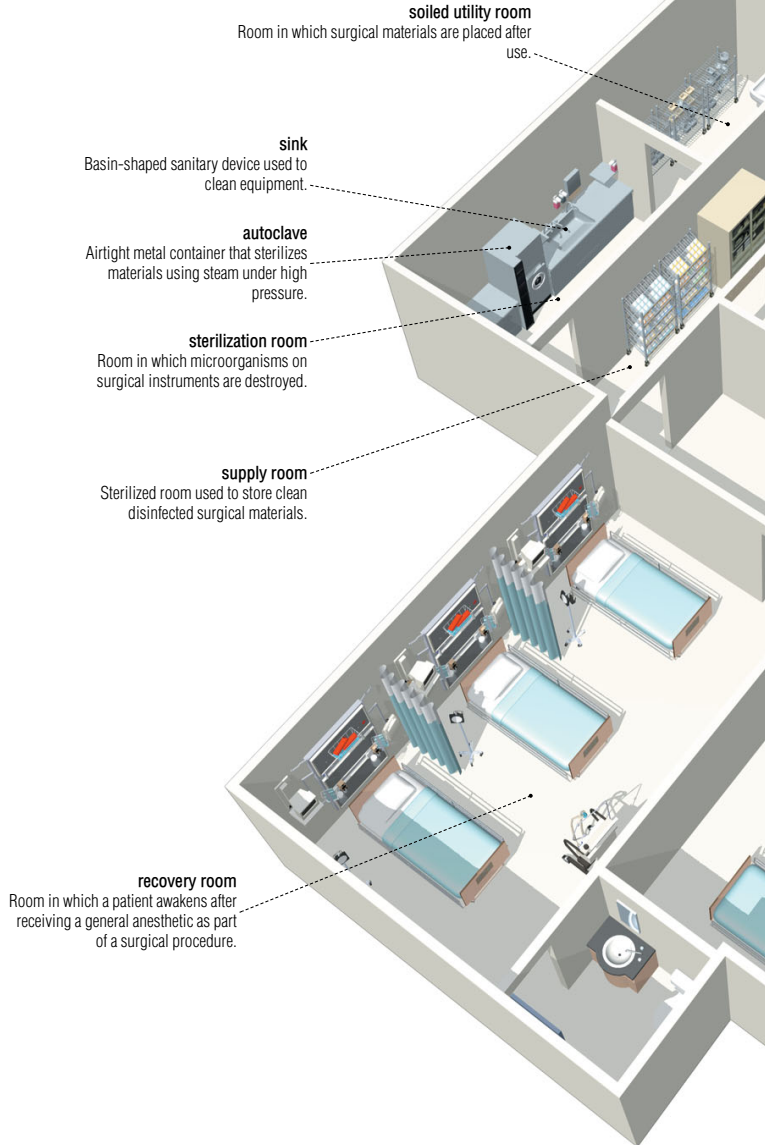
Curtain used to separate one patient's area from another's or to provide privacy.

patient's chair

Chair for a patient or visitor.

operating suite

The rooms and equipment used for surgical procedures.

**soiled utility room**

Room in which surgical materials are placed after use.

sink

Basin-shaped sanitary device used to clean equipment.

autoclave

Airtight metal container that sterilizes materials using steam under high pressure.

sterilization room

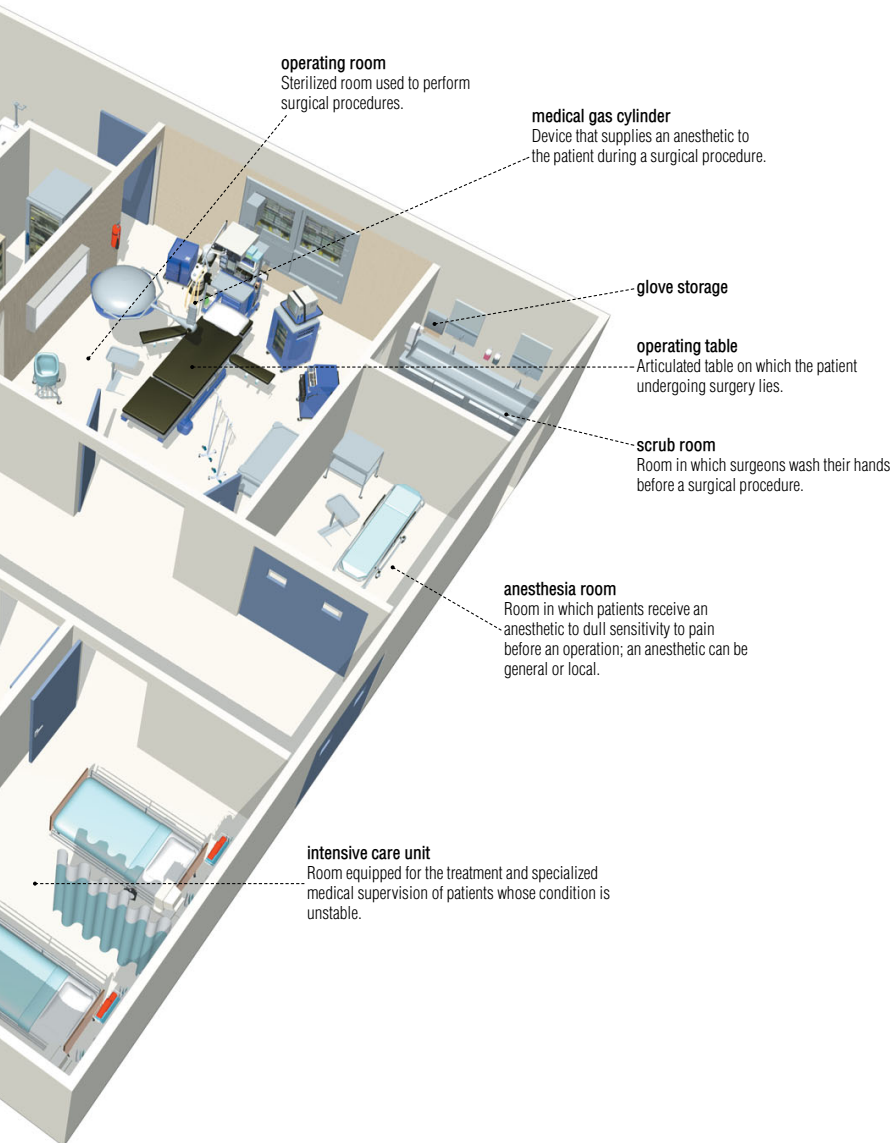
Room in which microorganisms on surgical instruments are destroyed.

supply room

Sterilized room used to store clean disinfected surgical materials.

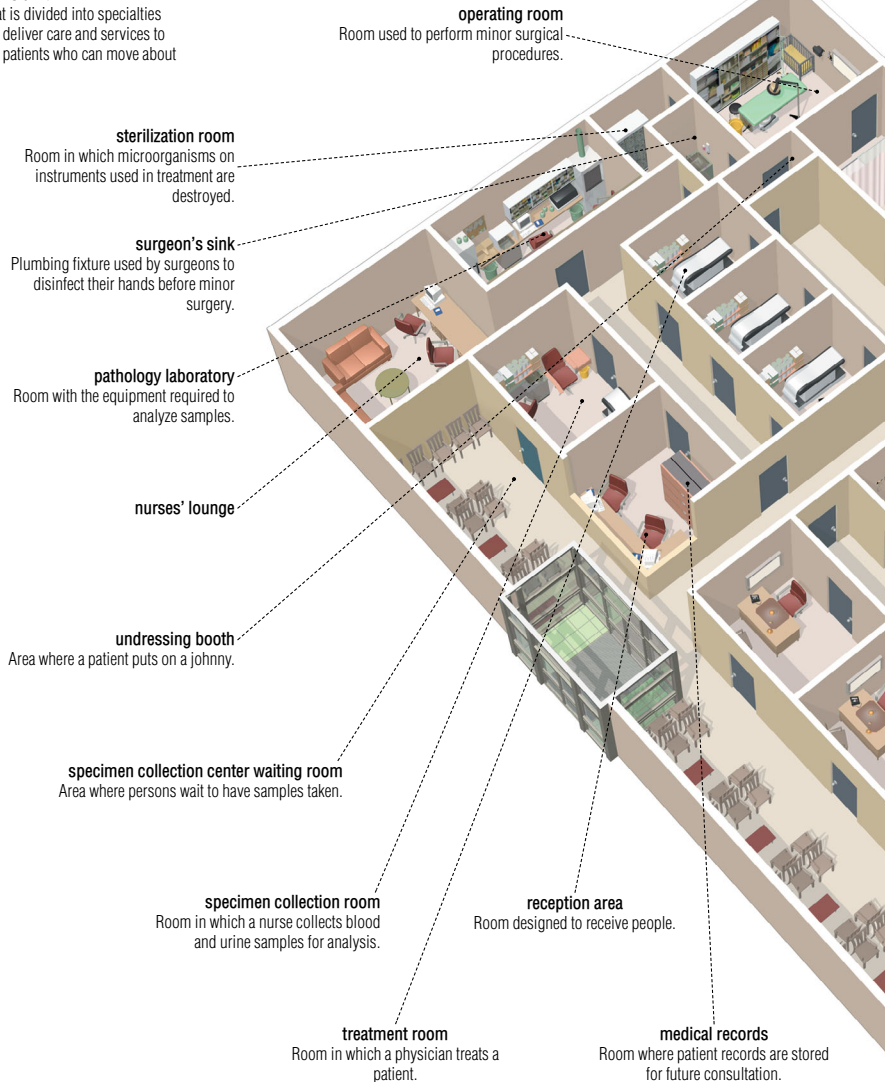
recovery room

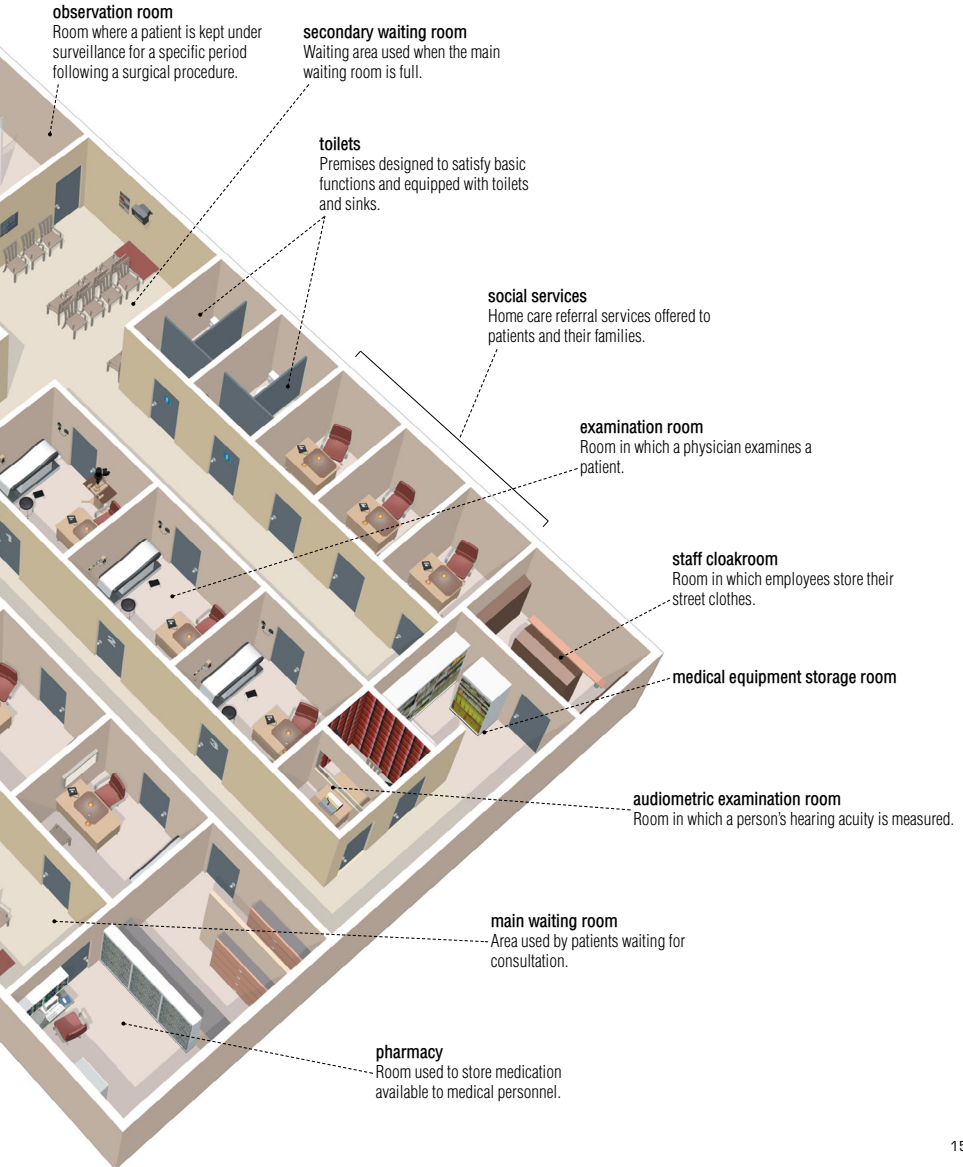
Room in which a patient awakens after receiving a general anesthetic as part of a surgical procedure.



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

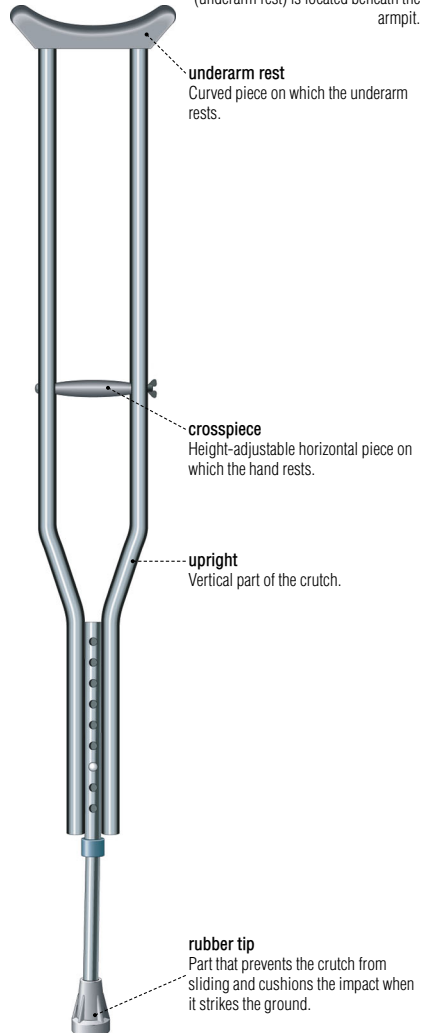
Weight-bearing devices used to help a person move about.

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

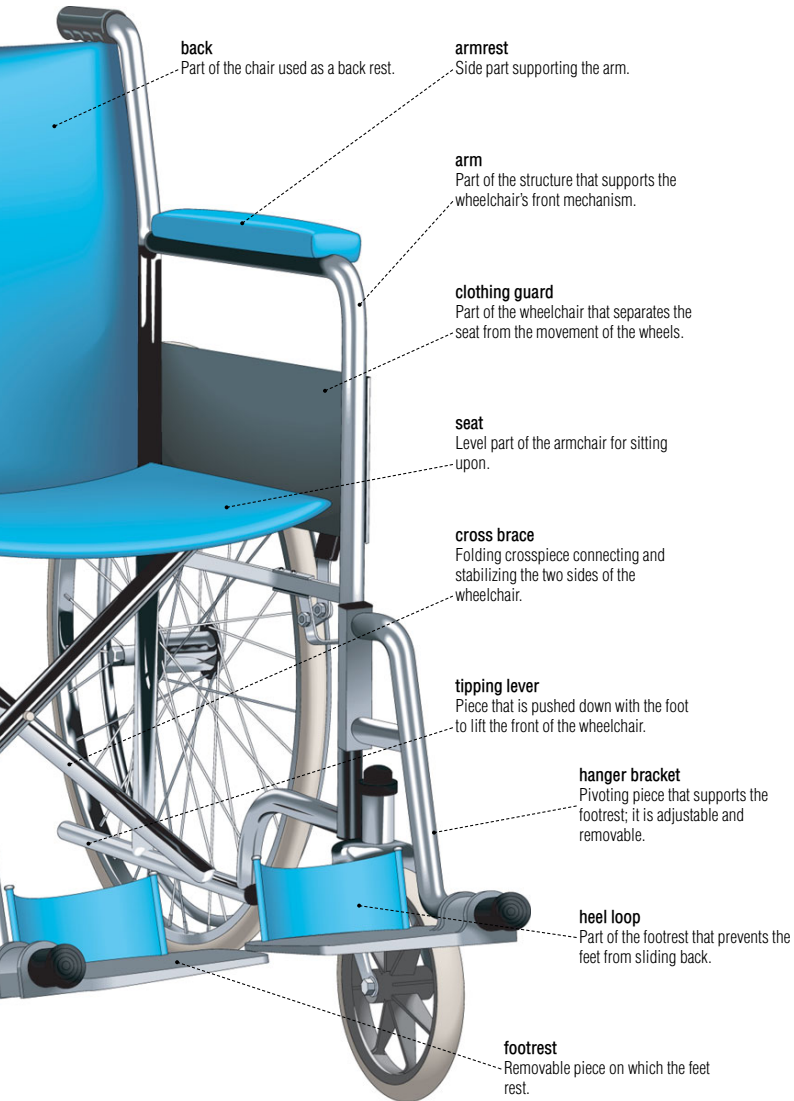
Support that slides or is lifted to help people who are too weak to walk unaided.



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**

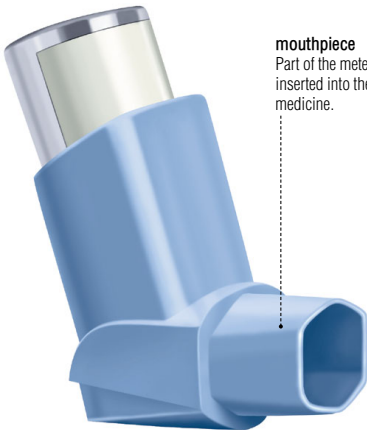
Receptacle filled with gelatin that contains a dose of medication or a pharmaceutical product.

**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.

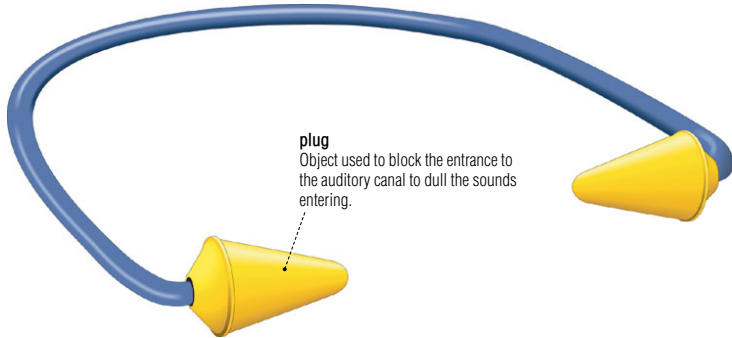
**cough syrup**

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.

headband
Flexible piece that keeps the earmuffs in place.

safety earmuffs

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

**foam cushion**

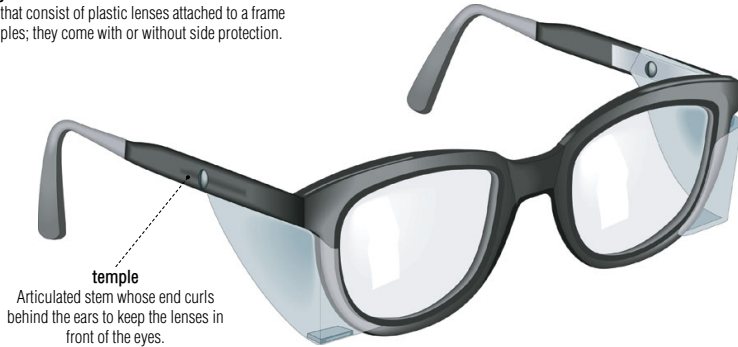
Soft material that fits around the ears to make the headband more comfortable.

eye protection

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

safety glasses

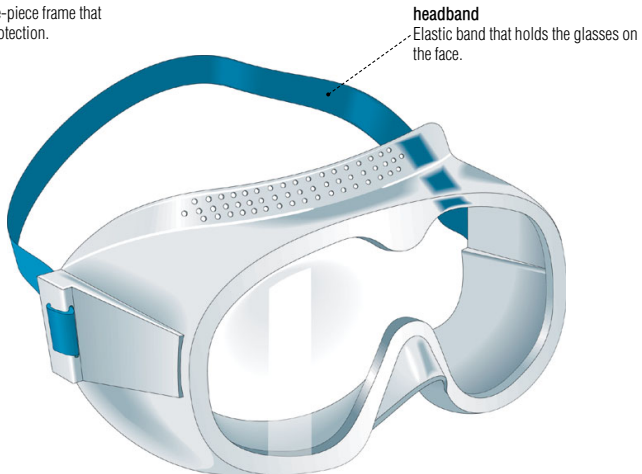
Glasses that consist of plastic lenses attached to a frame with temples; they come with or without side protection.

**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.

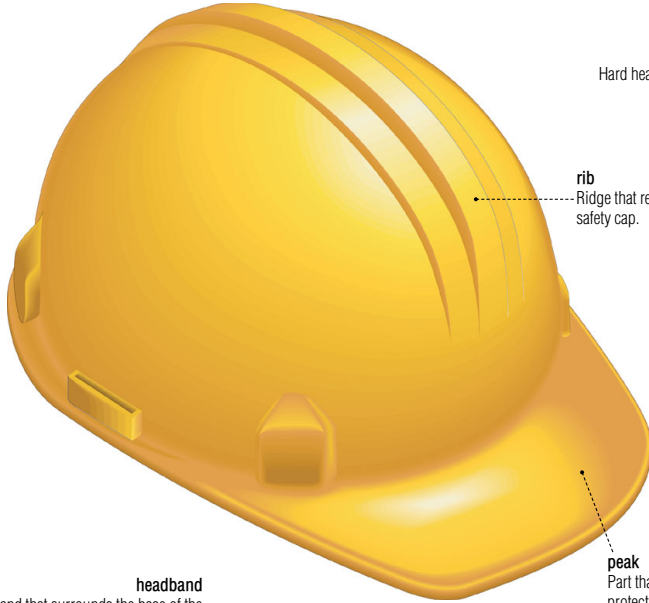
**headband**

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**

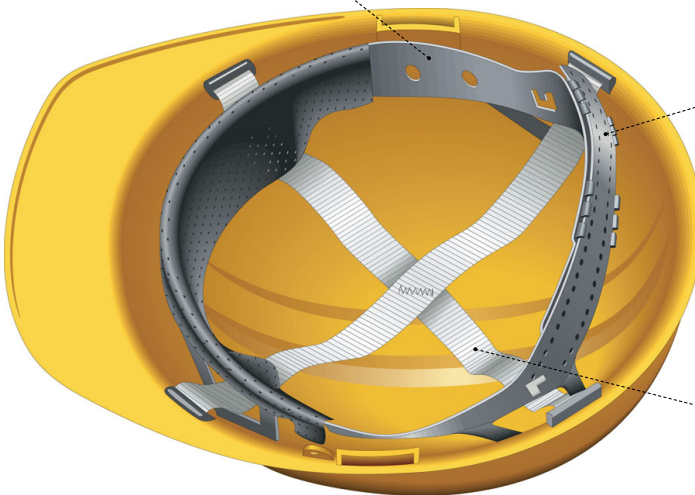
Ridge that reinforces the top of the safety cap.

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

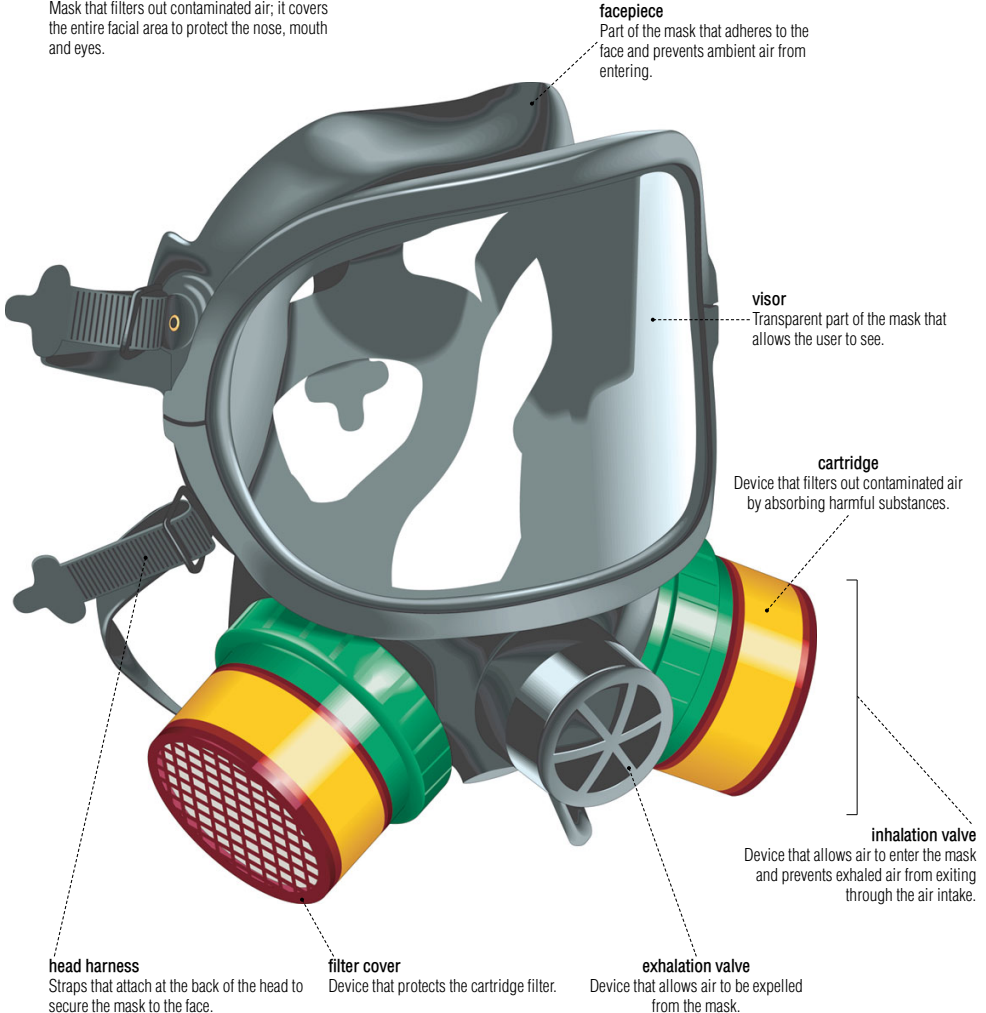
Belt on the inner top of the cap that is made of resistant fabric to cushion the impact of blows to the head.

respiratory system protection

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

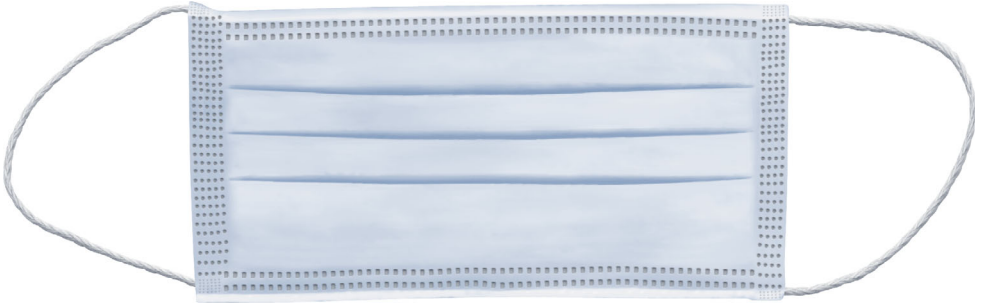
respirator

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

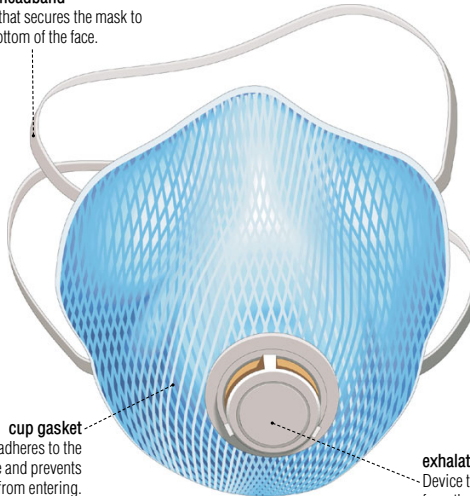


operating mask

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.

**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.

half-mask respirator

Mask that covers and protects the nose and mouth.

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.



1st cuneiform 53

A

abdomen 14, 18
 abdominal aorta 58, 84
 abdominal cavity 106, 110
 abdominal rectus 22
 abducens nerve 90
 abductor of little finger 28
 absorbent cotton 145
 accessory nerve 90
 acini 71
 acoustic meatus 117, 118
 acromion 33, 51
 Adam's apple 15
 adductor of thumb 28
 adenine 11
 adenohypophysis 72
 adhesive bandage 144
 adhesive tape 145
 adipose tissue 105, 113
 adjuster 156
 air conditioning system 137
 air-pressure pump 147
 ala 123
 alveolar atrium 73
 alveolar bone 57
 alveolus 73
 ambulance 136
 ambulance attendant's seat 137
 ambulatory care unit 154
 ampulla of fallopian tube 108
 anatomy 22
 anatomy, human being 22
 anconeus 24
 anesthesia room 153
 ankle 14, 18
 anterior auricular 26
 anterior chamber 130
 anterior fontanelle 41
 anterior horn 93
 anterior nasal spine 38
 anterior notch 117
 anterior root 99
 anterior tibial 22
 anterior tibial artery 58
 anterior view 14, 18, 22, 70
 antihelix 117
 antiseptic 145
 antitragus 117
 anus 80, 107, 111
 aorta 64, 77
 aorta, arch 58, 65
 aortic valve 65
 apex 57, 126
 apical foramen 57
 apocrine sweat gland 112
 aqueous humor 130

arachnoid 93
 arch of aorta 58, 65
 arch of foot artery 58
 areola 105
 arm 16, 20, 159
 armpit 14, 18
 armrest 159
 arrector pili muscle 112
 arteries 58
 arteriole 63, 73
 artery 62
 articular cartilage 46
 articular processes 44
 arytenoid cartilage 79
 ascending aorta 60
 ascending colon 81
 aspirator 136, 139
 Aspirin® 145
 astigmatism 135
 astrocyte 13
 atlas 22
 audiometric examination room 155
 auditory cortex 121
 auditory meatus, external 39
 auditory ossicles 119
 auricle 118
 auricle, ear 117
 autoclave 152
 axial skeleton 31
 axillary artery 58
 axillary nerve 89
 axillary vein 59
 axis 42
 axon 100, 104, 125
 axon hillock 101

B

back 16, 20, 115, 159
 backboard storage 137
 ball-and-socket joint 51
 basement membrane 162, 62, 63
 basilar vein 59
 bathroom 150
 bedside lamp 150
 bedside table 150
 Bellini's tubule 87
 belly 29
 bench 137
 bevel 141
 biceps of arm 22
 biceps of thigh 24
 bile duct 83
 blood circulation 58
 blood circulation, schema 30
 blood pressure monitor 147
 blood vessel 46, 61, 104, 112

blood vessels 62
 blood, composition 51
 body 71, 126
 body of fornix 95
 body of nail 116
 bone marrow 47
 bone, parts 46
 bone, structure 46
 bones, types 48
 bottom of the skull 40
 Bowman's capsule 87
 Bowman's gland 125
 brachial 22
 brachial artery 58
 brachial plexus 88
 brachioradialis 22
 brain 94
 brainstem 96, 97
 brake 158
 branch 140
 branch clip 140
 breast 14, 18, 105
 broad ligament of uterus 108
 broadest of back 24
 bronchiole, terminal 73
 buccinator 27
 bulbocavernosus muscle 111
 bundle of muscle fibers 30
 bundle of nerve fibers 104
 buttock 16, 20, 107, 111

C

calcaneus 36
 calf 16, 20
 camera 136
 canine 55
 cap 160
 capillary 63, 73
 capillary blood vessel 113
 capillary tube 146
 capitata 34
 capsule 67, 86, 160
 cardiac muscle 29
 carotid canal 40
 carpus 34
 cartridge 164
 cavernous body 110
 cecum 81
 celiac trunk 60, 84
 cell and tissues 8
 cell bodies 101
 cell membrane 8
 cells, examples 9
 cementum 57
 central incisor 55
 central nervous system 92
 centriole 8
 centromere 10
 cephalic vein 59

cerebellum 92, 94, 96
 cerebral convolution 96
 cerebral peduncle 97
 cerebrospinal fluid 99
 cerebrum 92, 94
 cervical collar 139
 cervical nerves 91
 cervical vertebra 42, 43, 99
 cervix of uterus 107
 chain of neurons 100
 cheek 19
 chin 15, 19
 choroid 131
 chromatid 10
 chromatin 8, 11
 chromosome 10
 ciliary body 130
 cingulate gyrus 98
 circumvallate papilla 126, 127
 clavicle 32
 clinical thermometers 146
 clitoris 106
 clothing guard 159
 coccygeal nerve 91
 coccyx 32, 42
 cochlea 119, 120
 cochlear canal 120
 cochlear nerve 119, 120
 collateral 101
 column of mercury 146
 commissure of lips of mouth 122
 common carotid artery 58
 common extensor of fingers 24
 common hepatic duct 83
 common iliac artery 58, 84
 common peroneal nerve 88
 communicating ramus 99
 compact bone 47
 complexus 25
 composition of the blood 61
 concave lens 133
 concentric lamellae 47
 concha 117
 condyloid joint 52
 cone 131
 conjunctiva 130
 connective tissue 12, 113
 constriction 146
 convex lens 134
 cornea 130, 132
 corona radiata 109
 coronal suture 39, 41
 corus callosus 94
 corrosive 167
 cortex 86

costal cartilage 45
 cot 143
 cotton applicators 144
 cough syrup 160
 Cowper's gland 111
 cranial nerves 89, 90
 cricoarytenoid muscles 79
 cricoid cartilage 78
 cross brace 159
 cross section of a molar 56
 crosspiece 156
 crown 56
 crus of helix 117
 crutch 156
 cuboid 36
 cuneiform, 1st 37
 cuneiform, 2nd 36, 53
 cup gasket 165
 cystic duct 83
 cytoplasm 8, 109
 cytosine 11

D

dangerous materials 167
 deep fascia 30
 deep peroneal nerve 88
 deferent duct 111
 defibrillator 139
 deltoid 23
 dendrite 101
 dental alveolus 56
 dentin 57
 deoxygenated blood 64
 depressor of angle of mouth 27
 dermis 113, 116
 descending aorta 60
 descending colon 81
 detrusor muscle 85
 diaphragm 77
 diaphragm 47
 digestive system 80
 digital display 147
 digital nerve 89
 digital pulp 116
 digital thermometer 146
 distal epiphysis 46
 distal phalanx 35, 37, 116
 DNA 10
 dorsalis pedis artery 58
 dorsum of nose 123
 dorsum of tongue 126
 dose inhaler 160
 Douglas, pouch 107
 drug storage 136
 duodenum 80, 82
 dura mater 92, 93, 99

E

ear 15, 19
 ear drum 119
 ear protection 161, 168
 ear, auricle 117
 ear, structure 118
 earlobe 117
 earpiece 140
 earplugs 161
 eccrine sweat gland 113
 egg 9, 109
 ejaculatory duct 111
 elastic support bandage 145
 elbow 16, 20, 49
 electrical hazard 167
 emergency 148
 emergency physician's office 148
 enamel 57
 end piece 109
 endocardium 64
 endocrine system 69
 endoplasmic reticulum 8
 endothelium 62, 63
 English cane 157
 ENT room 149
 epicondyle 33
 epicranial aponeurosis 26
 epidermis 113, 116
 epidural space 99
 epiglottis 76, 78, 79, 126
 epimysium 30
 epineurium 104
 epithelial tissue 12
 epitrochlea 33
 esophagus 77, 80, 82
 Eustachian tube 119, 125
 examination room 149, 155
 examples of cells 9
 exhalation valve 164, 165
 expansion chamber 146
 explosive 167
 external auditory meatus 39
 external ear 118
 external jugular vein 59
 external nose 123
 external oblique 22, 24
 eye 19, 128
 eye protection 162, 168
 eyeball 130
 eyelash 129

F

face 15, 19
 facepiece 164
 facial nerve 90
 falciop ligament 83
 fallopian tube 106
 fallopian tubes 108
 false rib 45
 female reproductive organs 106
 femoral artery 58
 femoral nerve 88
 femoral vein 59

femur 32
 fibroblast 12
 fibula 32, 36, 50
 filiform papilla 127
 filter cover 164
 finger 116
 finger flange 141
 fingernail 115
 first aid equipment 138
 first aid kit 144
 first aid manual 144
 first aid supplies 136
 first molar 55
 first premolar 55
 fissure 96
 flammable 167
 flat bone 48
 flexible tube 140
 floating rib 45
 foam cushion 161
 focus 132, 133, 134, 135
 foliate papilla 127
 fontanelle 41
 foot 17, 21, 36
 foot protection 166, 168
 footrest 159
 foramen cecum 126
 foramen magnum 40
 forearm 16, 20
 forearm crutch 156
 forearm support 156
 forehead 15, 19
 forms of medications 160
 fornix 98
 frame 143
 free margin 118
 front wheel 156
 frontal 23, 27
 frontal bone 38, 41
 frontal lobe 96
 frontal sinus 124
 fungiform papilla 127
 furrow 127

G

gallbladder 80, 83
 gas exchanges 73
 gastric glands 82
 gastrocnemius 22
 gauze roller bandage 144
 gelatin capsule 160
 germinal center 67
 glans penis 110
 gliding joint 53
 glomerulus 87
 glossopharyngeal nerve 90
 glottis 79
 glove storage 153
 gluteal nerve 89
 Golgi apparatus 8
 gray matter 93, 102
 great adductor 24
 great saphenous vein 59
 greater alar cartilage 124

greater pectoral 23
 greater trochanter 33
 greatest gluteal 24
 groin 18
 guanidine 11
 gum 57, 122
 gynecological examination room 149

H

hair 15, 16, 19, 112
 hair follicle 112
 half-mask respirator 165
 halogen light 136
 hamate 34
 hand 16, 20, 34, 114
 hand protection 168
 handgrip 156
 handle 158
 hanger bracket 159
 hard palate 122, 124
 Haversian canal 47
 head 17, 21, 71, 109
 head harness 164
 head nurse's office 149
 head of femur 33
 head of humerus 33
 head of rib 45
 head protection 163, 168
 headband 161, 162, 163, 165
 health 136
 hearing 117
 heart 64, 77
 heel 16, 20
 heel loop 159
 helix 117
 hemoglobin 61
 hepatic artery 83
 hepatic vein 60, 83
 hinge joint 49
 hip 16, 20
 hippocampus 98
 hollow barrel 141
 hook 143
 hospital 148
 hospital bed 151
 hub 158
 human being 8
 human body 14
 human cell 8
 human denture 55
 humerus 32, 49, 51
 hyoid bone 78
 hyperopia 134
 hypoglossal nerve 90
 hypothalamus 69, 72

I

ileum 81
 iliohypogastric nerve 88
 ilium 32
 immune system 66
 incisors 55
 incus 119
 index finger 114
 inferior dental arch 122
 inferior nasal concha 124

inferior rectus muscle 131
 inferior vena cava 59, 60, 64, 84
 infrapinnus 25
 infundibulum of fallopian tube 108
 inhalation valve 164
 insertion 29
 instep 14
 intensive care unit 153
 intercellular matrix 12
 intercostal nerve 89
 internal ear 118
 internal fiam terminale 92
 internal iliac artery 58, 60, 84
 internal iliac vein 60
 internal jugular vein 59
 intertragic notch 117
 interventricular septum 65
 intervertebral disk 42, 44
 intervertebral foramen 42, 44
 intervertebral joints 44
 intravenous stand 151
 iris 128, 130
 irregular bone 48
 ischium 33
 islet of Langerhans 71
 isolation room 148
 isthmus of fallopian tube 108
 isthmus of fauces 122
 isthmus of thyroid gland 70

J

jejunum 81

K

kidney 86
 knee 14, 18

L

labium majus 106, 108
 labium minus 106, 108
 lachrymal canal 128
 lachrymal caruncle 128
 lachrymal gland 129
 lactiferous duct 105
 lambdoid suture 39
 large intestine 81
 large wheel 158
 larger round 25
 larynx 70, 76, 78
 lateral condyle of femur 33
 lateral cuneiform 36
 lateral great 24
 lateral incisor 55
 lateral semicircular canal 119
 lateral view of child's skull 41
 lateral view of skull 38
 latex glove 142
 left atrium 60, 65
 left kidney 84
 left lobe 83
 left lung 77
 left pulmonary vein 65
 left ventricle 60, 65
 leg 17, 21, 50

lens 130, 132
 light ray 132
 limbic system 98
 lingual tonsil 126
 little finger 114
 liver 80, 83
 lobe bronchus 74
 lobe of thyroid gland 70
 loin 16, 20
 long adductor 22
 long bone 48
 long extensor of toes 22
 long flexor of thumb 28
 long palmar 22
 long peroneal 22
 lower eyelid 129
 lower limbs 31
 lower lip 122
 lower lobe 75, 76, 77
 Luer-Lock tip 141
 lumbar nerves 91
 lumbar plexus 88
 lumbar vertebrae 42, 43
 lumen 62
 lunate 34, 52
 lung 76, 77
 lungs 74
 lunula 115, 116
 lymph 67
 lymph node 66, 67
 lymphatic system 66
 lymphatic vessel 66, 67
 lysosome 8

M

macrophage 12
 macula 131
 main bronchus 74
 main respiratory organs 76
 main waiting room 155
 major calyx 86
 male reproductive organs 109
 male urethra 110
 malleus 119
 mammary gland 105
 mammillary body 98
 man 14
 mandible 38, 40
 manometer 136
 manubrium 45
 mass 138
 masseter 23, 27
 mastoid fontanelle 41
 mastoid process 39
 mattress 143
 maxilla 38
 maxillary bone 57
 median condyle of femur 33
 median inguinal sulcus 126
 median nerve 88
 medical equipment storage room 155
 medical gas cylinder 153
 medical records 154
 medications, forms 160
 medulla 86
 medulla oblongata 94, 97

medullary cavity 47
meninges 93
mercury bulb 146
mercury thermometer 146
metacarpal 34, 54
metacarpus 35
metaphysis 46, 47
metarteriole 67
metatarsal 33
metatarsus 37
metered dose inhaler 160
microglucocyte 13
microvillus 12
midbrain 97
middle ear 118
middle finger 114
middle lobe 76
middle nasal concha 124
middle phalanx 35, 37, 116
middle piece 109
minor calyx 86
minor surgery room 148
mitochondrion 8
mitral valve 65
mobile X-ray unit 148
molar, cross section 56
molars 55
mons pubis 106
motor end plate 103
motor neuron 103
motor root 93, 102
mouth 15, 19, 122
mouthpiece 160
mucous membrane 82, 85
mucus 125
muscle fiber 9, 13, 30, 103
muscle tissue 13
muscles 22, 82
muscles of hand 28
muscles of head: lateral view 26
muscles, types 29
myelin sheath 101
myocardium 65
myofibril 30
myofilaments 30
myopia 133

N

nail bed 116
nail matrix 116
nape 16, 20
naris 123
nasal bone 38, 124
nasal cavity 76
nasal fossae 124
nasalis 27
nasopharynx 125
navel 14, 18
navicular 36, 53
neck 17, 19, 21, 56, 109
neck of femur 33
neck of urinary bladder 85
neck strap 163
needle 141
needle hub 141
nephron 87
nerve fiber 112

nerve tissue 13
nerve, olfactory 124
nerve, structure 104
nervous system 88
nervous system, central 92
nervous system, peripheral 88
nerual stalk 72
neurohypophysis 72
neuron 9, 13
neurons 100
neutrophil 9
nipple 18, 105
nitrogenous base 11
node of Ranvier 100
normal vision 132
nose 15, 19, 123
nuclear envelope 8
nucleolus 10, 109
nucleoplasm 10
nucleosome 11
nucleotide 11
nucleus 8, 10, 72, 101, 109
nurse 151
nurses' lounge 154
nurses' station (ambulatory emergency) 149
nurses' station (major emergency) 148

O

object 132
oblique fissure 75
observation room 148, 155
obturator nerve 88
occipital 25, 26
occipital bone 39, 40, 41
occipital lobe 96
oculomotor nerve 90
olecranon 33
olfactory bulb 124, 125
olfactory cell 125
olfactory mucosa 124
olfactory nerve 90, 124
olfactory tract 124
oligodendrocyte 13
operating mask 165
operating room 153, 154
operating suite 152
operating table 153
ophthalmology room 149
optic chiasm 95
optic nerve 90, 131
oral cavity 76, 80
orbicular of eye 23
organ of Corti 120
origin 29
oropharyngeal airway 138
ortho-cane 157
osteocyte 9
osteon 47
ovary 106, 108
overbed table 151
oxygen cylinder bracket 137
oxygen cylinder, portable 137
oxygen mask 138
oxygen outlet 150
oxygenated blood 64

P

palatine bone 40
palatine tonsil 126
palatoglossal arch 122
palm 114
palmar aponeurosis 28
pancreas 69, 71, 80
papillary muscle 65
parathyroid gland 70
parietal bone 39, 41
parietal lobe 96
parietal pleura 75
parts of a long bone 46
parts of a striated muscle 29
patella 32
pathology laboratory 154
patient 151
patient room 150
patient's chair 151
peak 163
pelvis 31
penis 14, 110
pericardium 76
perimysium 30
perineurium 104
periodontal ligament 56
periosteum 47
peripheral nervous system 88
peritoneum 82, 106, 111
peroxide 145
phalanges 35, 37
pharmacy 148, 155
pharynx 77, 80
philtrum 123
photoreceptor 9
photoreceptors 131
physician 151
pia mater 93
pineal body 94
pisiform 34
pituitary gland 69, 72, 95
pivot joint 50
plantar nerves 91
plasma 61
plaster room 149
platelet 61
platysma 27
pleural cavity 75
plexus of nerves 57
plug 161
plunger 141
pneumatic armband 147
poison 167
pons Varolii 95, 97
pore 113
portable oxygen cylinder 137
portal vein 60, 83
posterior auricular 26
posterior chamber 130
posterior fontanelle 41
posterior horn 93
posterior root 99
posterior rugae 16, 20
posterior semicircular canal 119
posterior view 16, 20, 24, 70

pouch of Douglas 107
precapillary sphincter 63
premolars 55
prepuce 110
pressure control valve 147
pressure gauge 147
primary auditory cortex 121
privacy curtain 151
procerus 27
prostate 111
protection 168
protoneuron 102
proximal epiphysis 47
proximal phalanx 35, 37
psychiatric observation room 148
pubis 14, 18
pulling ring 143
pulmonary artery 58, 77
pulmonary trunk 65
pulmonary valve 64
pulmonary vein 59
pulp 56
pulp chamber 56
pupil 128, 130
push rim 158
pylorus 82

Q

quad cane 157
quadrigeminal bodies 97

R

radial nerve 89
radioactive 167
radius 32, 34, 49, 52
Ranvier, node 100
rear step 136
reception area 154
reclining back 143
recovery room 152
rectum 81, 107, 111
red blood cell 9, 61
red pulp 68
reinforced toe 166
renal artery 58, 86
renal hilus 84
renal pelvis 86
renal pyramid 86
renal tubule 87
renal vein 59, 86
reproductive organs, female 106
reproductive organs, male 109
resident 150
respirator 164
respiratory organs 76
respiratory system 73
respiratory system protection 164, 168
resuscitation room 148
resuscitator 138
retina 131, 132

rib 45, 163
rib, head 45
ribosome 8
ribs 32
right atrium 60, 64
right kidney 84
right lobe 83
right lung 76
right lymphatic duct 66
right pulmonary vein 64
right ventricle 60, 64
risorius 27
rod 131
root 56, 126
root canal 56
root of nail 116
root of nose 123
rubber bulb 141
rubber tip 156
rubbing alcohol 145

S

sacral nerves 91
sacral plexus 88
sacrum 32, 33, 42
saddle joint 54
safety 161
safety boot 166
safety cap 163
safety earmuffs 161
safety glasses 162
safety goggles 162
safety symbols 167
sagittal section 106, 110
salivary gland 127
salivary glands 80
saphenous nerve 88
sartorius 22
scale 141, 146
scaphoid 34, 52
scapula 33, 51
schema of light 136
schema of circulation 60
Schwann, sheath 101
sciatic nerve 88
scissors 145
sclera 129, 131
scrotum 110
scrub room 153
seat 159
sebaceous gland 112
second molar 55
second premolar 55
secondary auditory cortex 121
secondary waiting room 155
security guard's work station 149
semicircular canal, lateral 119
semicircular canal, posterior 119
semicircular canal, superior 119

- seminal vesicle 111
 semitendinous 24
 sense organs 112
 sense receptor 103
 sensitive root 93
 sensory impulse 102
 sensory neuron 103
 sensory root 102
 septal cartilage of nose 124
 septal nuclei 98
 septum 123
 septum pellucidum 95
 sheath of Schwann 101
 short abductor of thumb 28
 short bone 48
 short flexor of thumb 28
 short peroneal 24
 shoulder 14, 18, 51
 shoulder blade 16, 20
 shoulder girdle 31
 shower 150
 sight 128
 sigmoid colon 81
 sink 152
 skeleton 31
 skin 103, 112
 skin surface 113
 skull 15, 19, 41
 skull, bottom 40
 skull, lateral view 38
 slender 24
 small intestine 81
 smaller room 25
 smell 122
 smooth muscle 29
 social services 155
 social worker's office 149
 soft palate 122, 125
 soiled utility room 152
 soles 22
 sound receiver 140
 spacer 158
 specimen collection center
 waiting room 154
 specimen collection room
 154
 spermatozoon 9, 109
 sphenoid bone 38, 40
 sphenoidal fontanelle 41
 sphenoidal sinus 125
 sphincter muscle of anus 80
 spinal cord 92, 93, 97, 99,
 102
 spinal cord, structure 93
 spinal ganglion 93, 102
 spinal nerve 93, 99, 103
- spinal nerves 91
 spine of scapula 33
 spinous process 43, 44, 99
 spleen 66, 68
 splenic artery 68
 splenic vein 68
 splenius muscle of head 25
 splints 144
 spongy bone 46
 squamous suture 39
 staff cloakroom 155
 staff lounge 149
 stapes 119
 stem 146
 sterile pad 144
 sterilization room 152, 154
 sternocleidomastoid 23, 26
 sternum 32, 45
 stethoscope 140
 stomach 80, 82
 straight muscle of thigh 22
 stratum basale 112
 stratum corneum 112
 stratum granulosum 112
 stratum lucidum 112
 stretcher 136, 142
 striated muscle 29
 striated muscle, parts 29
 strobe light 136
 structure of a long bone 46
 structure of a nerve 104
 structure of a striated muscle
 30
 structure of the ear 118
 structure of the spinal cord 93
 styloid process 39
 subclavian artery 58
 subclavian vein 59
 subcutaneous tissue 113
 submucosa 82
 sudoriferous duct 113
 sulcus terminalis 126
 superficial flexor of fingers 28
 superficial peroneal nerve 88
 superior auricular 26
 superior dental arch 122
 superior mesenteric artery 58
 superior mesenteric vein 59
 superior nasal concha 124
 superior rectus muscle 130
 superior semicircular canal
 119
 superior vena cava 59, 60, 64
 supply room 152
 suprarenal gland 69, 84
 sural nerve 89
- surgeon's sink 154
 suspension band 163
 suspensory ligament 130
 symbols, dangerous materials
 167
 symbols, protection 168
 sympathetic ganglion 93
 symphysis pubis 106, 110
 synapse 100, 102
 synovial joints, types 49
 syringe 141
 syringe for irrigation 142
- T**
- tablet 160
 tail 71, 109
 tail of helix 117
 taillights 136
 talus 36
 tarsus 36, 53
 taste 122
 taste bud 127
 taste receptors 127
 teeth 55
 telescopic leg 143
 temple 15, 19, 162
 temporal 27
 temporal bone 39
 temporal lobe 96
 tendon 29, 30
 terminal arborization 100
 terminal bronchiole 73, 74
 terminal filament 92
 testicle 110
 thigh 16, 20, 107, 111
 third finger 114
 thoracic cage 45
 thoracic duct 66
 thoracic nerves 91
 thoracic vertebra 42, 43, 45
 thorax 14, 18
 thumb 54, 114
 thumb rest 141
 thymine 11
 thymus 66, 69
 thyrothyroid membrane 78
 thyroid cartilage 78, 79
 thyroid gland 69, 70
 tibia 32, 36, 50
 tibial nerve 89
 tip of nose 123
 tip protector 141
 tipping lever 159
 tissues 12
 toe 14, 18
 toe guard 166
- toilet 150
 toilets 155
 tongue 80, 122, 124
 tongue, dorsum 126
 tonsil 98, 122
 tonsils 66
 toric lens 135
 touch 112
 trachea 70, 74, 77, 78
 tragus 117
 transverse colon 81
 transverse foramen 43
 transverse metacarpal
 ligament 28
 transverse process 42, 43,
 44, 99
 trapezium 34, 54
 trapezius 23, 25
 trapezoid 34
 treatment room 149, 154
 triage room 149
 triangular bandage 144
 triangular fossa 117
 triceps of arm 24
 tricuspid valve 64
 trigeminal nerve 90
 trigeminal 34
 trochlear nerve 90
 true rib (7) 45
 trunk 17, 21
 tube 147
 tunica adventitia 62
 tunica media 62
 tweezers 144
 tympanic canal 120
 types of bones 48
 types of muscles 29
 types of synovial joints 49
- U**
- ulna 32, 34, 49
 ulnar extensor of wrist 24
 ulnar flexor of wrist 24
 ulnar nerve 88
 underarm crutch 156
 underarm rest 156
 undressing booth 154
 upper eyelid 128
 upper limbs 31
 upper lip 122
 upper lobe 75, 76, 77
 upright 156
 ureter 84, 85, 86
 ureteral orifice 85
 urethra 84, 85, 106
 urinary bladder 84, 85, 106,
 111
- urinary system 84
 uterovesical pouch 107
 uterus 106, 108
 uvula 122, 125
- V**
- vacuole 8
 vagina 107, 108
 vagus nerve 90
 valve 62, 67
 vein 62
 veins 59
 venule 63, 73
 vermiform appendix 81
 vertebral body 42, 43, 44, 99
 vertebral column 32, 42, 92
 vertebral foramen 43
 vesical trigone 85
 vestibular canal 120
 vestibular nerve 119
 vestibule 119
 vestibulocochlear nerve 90
 vial 160
 visceral pleura 75
 vision defects 133
 visor 164
 vitreous body 131
 vocal cord 76
 vocal folds 79
 Volkmann's canals 47
 vulva 18, 108
- W**
- waist 16, 20
 waiting room 149
 walker 157
 walking aids 156
 walking stick 157
 Wernicke's area 121
 wheelchair 158
 white blood cell 61
 white matter 93, 102
 white pulp 68
 wisdom tooth 55
 woman 18
 wrist 16, 20, 52, 115
- X**
- X-ray unit, mobile 148
- Y**
- Y-tube 140
- Z**
- zona pellucida 109
 zygomatic bone 38, 40
 zygomatic process 40

