

# [The study of human anatomy](https://assignbuster.com/the-study-of-human-anatomy/)

physiologyThe scientific study of the functions of living organisms is called“ percussion” study methodtapping on a body surface then listening to the echo to diagnose healthabdominal Region, thoracic RegionIdentify the subdivisions of the trunkplasma membraneThe structure that encloses a cell and controls the traffic of molecules in and out of a cell is the \_\_\_\_\_\_ \_\_\_\_\_\_. moleculetwo or more atoms joined by chemical bonds would form a/an \_\_\_\_\_\_ ? lower limbs, upper limbs, cervical regionIdentify the appendicular region componentslateralthe directional term that indicates farther away from the midline of the body is \_\_\_\_\_\_\_ ? auscultationin performing a physical examination the act known as listening is known as \_\_\_\_\_\_ ? crural, femoral, pedalIdentify the areas included in the lower limbpalpationtaking a pulse by feeling the radial artery is known asmediastinumthe region between the lungs is known as thestanding upright, feet flat on floor, palms directed forwardIdentify the statements that describe a person in anatomical positioncranial cavitythe brain is contained within the \_\_\_\_\_\_ \_\_\_\_\_? axial appendicularthe two major body regions are the \_\_\_\_\_ and \_\_\_\_\_ regionsorganellea microscopic structure in a cell that carries out individual functionsperitoneumthe double-layered serous membrane found in the abdominopelvic region isanatomythe study of the makeup and organization of the body structures is calledorgana structure composed of at least two different tissues, with recognizable boundaries, and with discrete function. pleurathe serous membrane around each lung is the \_\_\_\_\_\_ ? superiorthe directional term that means “ above” is \_\_\_\_\_ ? superior tothe abdominal cavity is \_\_\_\_\_\_\_\_ \_\_\_ the pelvic cavityaxial regionthe major body region that includes the head, neck, and trunk is the \_\_\_\_\_\_ \_\_\_\_\_\_. organismthe term that indicates a single complete individual is \_\_\_\_\_\_. appendicular regionthe upper and lower limbs compose the \_\_\_\_\_\_\_\_ \_\_\_\_\_\_ of the bodycellthe basic structural and functional unit of life is the \_\_\_\_. gross anatomythe field that focuses on bodily structures that can be observed without magnification is called \_\_\_\_\_ \_\_\_\_\_\_. Inspectionobserving the condition of skin and nails by sight is an example of which method of study?-logythe suffix “-\_\_\_\_” means “ the study of” atomthe smallest particle of matter with unique chemical propertiestissuean aggregation of cells and extracellular materials, which perform discrete function, is known as a/an \_\_\_\_\_\_\_ ? pronethe anatomical term that describes a person laying face down is: distalthe directional term that indicates being farther away from the point of attachment is: right and lefta saggital plane divides the body into\_\_\_\_ \_\_ \_\_\_\_\_ portionsThe scientific study of the functions of living organismsphysiologytwo or more atoms joined by chemical bondsmoleculethe directional term that indicates farther away from the midline of the bodylateraltaking a pulse by feeling the radial arterypalpationthe region between the lungsmediastinumorgan systema group of organs working together for a coordinated function is an \_\_\_\_\_\_ \_\_\_\_\_\_\_\_. comparative anatomythe study of more than one species in order to observe the structural similarities and differences is known as \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_. x-raysthe imaging technique known as radiography involve the use of \_\_\_\_\_\_\_\_. tapping on a body surface then listening to the echo to diagnose health“ percussion” study methodthe double-layered serous membrane found in the abdominopelvic regionperitoneumtaking a pulse by feeling the radial arterypalpationin performing a physical examination; the act known as listeningauscultationthe field that focuses on bodily structures that can be observed without magnificationgross anatomya microscopic structure in a cell that carries out individual functionsdefine organellethe directional term that indicates being farther away from the point of attachmentdistalThe structure that encloses a cell and controls the traffic of molecules in and out of a cellplasma membranea structure composed of at least two different tissues, with recognizable boundaries, and with discrete function. organ-ationprocesspalp-touch, feelauscult-listenthe directional term that indicates “ above” superiorFunctional MorphologyChapter Definition: Not just the structure of organs, but the functional reasons behind it. History of AnatomyOlder than any written language, earliest books written by 1)Aristotle, 2)Galen, 3)Avicenna1)Aristotlethe Greek Philosopher (384-322 BCE)2)Galenthe Greek physician (129-c. 199CE)3)Avicennathe Persian physician (Ibn Sina, 980-1037CEModern Anatomy16th Century. Andreas VesaliusFlemish physician (1514-64) questioned the accuracy of the earlier authorities and commissioned the first accurate anatomical illustrations for his book, De Humani Corporis Fabrica (On the Structure of the Human Body, 1543) The tradition begun by Vesalius has been handed down to us through such famous contemporary works as Gray’s Anatomy, Frank Netter’s Atlas of Human Anatomy, and many others, to the richly illustrated textbooks used by college students today. De Humani Corporis Fabrica (On the Structure of the Human Body, 1543)the first accurate anatomical illustrationsCadaverChapter Definition: Deceased BodyPresent AnatomyNew techniques of study continually produce exciting new insights into human structure, and anatomists have discovered far more about the human body in the last century than in the 2, 500 years before. Anatomy now embraces several subdisciplines that study human structure from different perspectives. Gross Anatomy Chapter Definitionthe study of structure visible to the naked eyeGross Anatomy Methodssurface observation, dissection, X-Rays, and MRI scansSurface Anatomy Chapter Definitionthe external surface of the body. especially important in conducting a physical examination of a patient. Radiologic anatomythe study of internal structure, using X-rays and other medical imaging techniquesMRI scansentails examination of a two-dimensional image of a thin “ slice” through the body. Systemic anatomythe study of one organ system at a time and is the approach taken by most introductory textbooks such as this oneRegional anatomythe study of multiple organ systems at once in a given region of the body, such as the head or chestHistopathologyis the microscopic examination of tissues for signs of diseasehistology1. the microscopic structure of tissues and organs. 2. The study of such structureCytologythe study of the structure and function of individual cellsUltrastructureStructure at or near the molecular level, made visible by the transmission electron microscope. refers to fine detailcomparative anatomy chapter definitionthe study of more than one species in order to examine structural similarities and differences and analyze evolutionary trendsinspection study method chapter definitionsimply looking at the body’s appearance in careful detail, as in performing a physical examination or making a clinical diagnosis from surface appearance. Observations of the skin and nails, for example, can provide clues to such underlying problems as vitamin deficiencies, anemia, heart disease, and liver disease. Physical examinations involve not only looking at the body for signs of normalcy or disease, but also touching and listening to itPalpation chapter definitionfeeling a structure with the hands, such as palpating a swollen lymph node or taking a pulseAuscultation chapter definitionlistening to the natural sounds made by the body, such as heart and lung soundsdissection chapter definitionthe careful cutting and separation of tissues to reveal their relationships. The very words anatomy and dissection both mean “ cutting apart”; until the nineteenth century, dissection was called “ anatomizing.” exploratory surgeryopening the body and taking a look inside to see what was wrong and what could be done about it. Any breach of the body cavities is risky, however, and most exploratory surgery has now been replaced by medical imaging techniquesradiologyThe branch of medicine concerned with imaging isRadiologic methodshigh-energy ionizing radiation such as X-rays or particles called positrons. These penetrate the tissues and can be used to produce images on X-ray film or through electronic detectors. The benefits of ionizing radiation must always be weighed against its risks. It is called ionizing because it ejects electrons from the atoms and molecules it strikes. This effect can cause mutation and trigger cancer. Thus, ionizing radiation cannot be used indiscriminately. Used judiciously, however, the benefits of a mammogram or dental X-ray substantially outweigh the small risk. These are: noninvasive imaging techniquesthey do not involve any penetration of the skin or body orificesInvasive imaging techniquesmay entail inserting ultrasound probes into the esophagus, vagina, or rectum to get closer to the organ to be imaged, or injecting substances into the bloodstream or body passages to enhance image formationRadiographythe process of photographing internal structures with X-raysRadiography factsfirst performed in 1895. Until the 1960s, this was the only widely available imaging method; even today, it accounts for more than 50% of all clinical imaging. X-rays pass through the soft tissues of the body to a photographic film or detector on the other side, where they produce relatively dark images. They are absorbed, however, by dense tissues such as bones, teeth, tumors, and tuberculosis nodules, which leave the image lighter in these areas. The term X-ray also applies to a photograph (radiograph) made by this method. Radiography is commonly used fordentistry, mammography, diagnosis of fractures, and examination of the chest. radiopaquea substance that absorbs X-rays and can visualize hallow organs by filling them. a radiopaqueHollow organs can be visualized by filling them withBarium sulfateis given orally for examination of the esophagus, stomach, and small intestine, or by enema for examination of the large intestineangiographythe examination of blood vessels. Substance given by injection for this. Disadvantages of Radiographyimages of overlapping organs can be confusing and slight differences in tissue density are not easily detected. In addition, X-rays present the aforementioned risks of ionizing radiation.