

Diagnostic Imaging Glossary

Read through the glossary below. Put a check mark next to the terms that are important for you memorize, and then use a pronunciation application to ensure you know how to say them correctly.

allergic reaction

The hypersensitive response of the immune system of an allergic individual to a substance.

anaphylactic shock

A sudden, severe allergic reaction characterized by a sharp drop in blood pressure, urticaria, and breathing difficulties that is caused by exposure to a foreign substance.

anatomical landmarks

An anatomical structure used as a point of orientation in locating other structures.

angiography

An examination by X-ray of blood or lymph vessels, carried out after introduction of a radiopaque substance, highlighting the presence and extent of obstruction to the vessel, if any.

anode

The positively charged electrode by which the electrons leave a device.

artery

The muscular-walled tube forming part of the circulation system that conveys blood from the heart to all parts of the body.

aseptic

Free from contamination caused by harmful bacteria, viruses, or other microorganisms.

benign

Not cancerous.

biopsy

The removal and examination of a sample of tissue from a living body for diagnostic purposes.

bladder

A membranous sac for temporary retention of urine.

bone

The dense, semi-rigid, porous, calcified connective tissue forming the major portion of the skeleton of most vertebrates.

brain

The portion of the vertebrate central nervous system that is enclosed within the cranium, continuous with the spinal cord, and composed of gray matter

breast feed

Feed a baby from a mother's breast.

bruise

An injury appearing as an area of discolored skin on the body, caused by a blow or impact rupturing underlying blood vessels.

cancellous bone

Another name for trabecular bone or spongy bone.

catheter

A thin tube that can be inserted in the body to treat diseases or perform a surgical procedure.

cathode

The negatively charged electrode by which electrons enter an electrical device

central ray

The central portion of the primary beam of radiation.

cervical collar

A neck brace used to support a patient's neck and head.

colonoscopy

Visual examination of the colon from the cecum to the rectum.

coronagraphy

An exam requiring the puncture of an artery in order to introduce a hose through which a product impervious to X-rays will be injected, directly into the coronary arteries.

compensating filter

A device, such as a wedge of aluminum, clay, or plastic that is placed over a body area during radiography to compensate for differences in radiopacity.

computed tomography

A method of examining body organs by scanning them with X rays and using a computer to construct a series of cross-sectional scans along a single axis.

contrast medium

A radiopaque substance used in radiography to permit visualization of internal body structures.

cortical bone

Another name for compact bone.

delivery

The process of giving birth.

diagnosis

The identification of the nature and cause of a certain phenomenon.

diagnostic radiography

The examination of internal organs, bones, cavities and foreign objects; includes cardiovascular imaging and interventional radiography.

diaphysis

The shaft or central part of a long bone.

disease

A disorder of structure or function in a human, animal, or plant that affects a specific location and is not simply a direct result of physical injury.

drug

Substance which may have medicinal, intoxicating, performance enhancing or other effects when taken

Diagnostic Imaging Glossary (continued)

electromagnetic radiation

It's a form of radiant energy, propagating through space via electromagnetic waves and/or particles called photons

enema

A procedure in which a liquid is injected into the rectum to introduce drugs or to permit X-ray imaging.

epiphysis

The end part of a long bone, initially growing separately from the shaft.

examination table

A table used to support patients during medical examinations.

false positive

A test result that shows a disease is present when it is not.

fast

To abstain from all or some kinds of food or drink.

fluoroscopy

A technique where a fluorescent screen or image intensifying tube is connected to a closed-circuit television system to image internal structures of the body.

fracture

A complete or incomplete break in a bone resulting from the application of excessive force.

Functional magnetic resonance imaging (fMRI)

A neuro-imaging procedure using that measures brain activity by detecting changes associated with blood flow.

gamma camera

A device used to image gamma radiation emitting radioisotopes.

gonadal shielding

A specially designed contact or shadow shield used to protect the gonadal area of a patient from the primary radiation beam during radiographic procedures.

heart

A vital organ that functions as a pump, providing a continuous circulation of blood through the body.

image intensifier

An imaging component which converts x-rays into a visible image.

infectious disease

Disorders caused by organisms such as bacteria, viruses, fungi or parasites.

inject

To introduce (a drug or vaccine, for example) into a body part

interventional radiology

A medical sub-specialty of radiology which utilizes minimally-invasive image-guided procedures to diagnose and treat diseases in nearly every organ system.

intravenous tubing

Plastic conduit used to administer various fluids to patients through a needle inserted into one of the patient's veins.

ionizing radiation

A radiation composed of particles that individually carry enough kinetic energy to liberate an electron from an atom or molecule, ionizing it.

kidney

A pair of organs that are found on either side of the spine, just below the rib cage in the back.

laxative

A medicine or agent for relieving constipation.

lead apron

Lead shielding refers to the use of lead as a form of radiation protection to shield people or objects from radiation so as to reduce the effective dose.

liver

An important organ in the body, located under the ribs in the right upper part of the abdomen.

lumbar puncture

Insertion of a needle into the arachnoid membrane of the spinal cord, in the lumbar region.

lung

Each of the pair of organs situated within the rib cage, consisting of elastic sacs with branching passages into which air is drawn, so that oxygen can pass into the blood and carbon dioxide be removed.

magnetic field

A region around a magnetic material or a moving electric charge within which the force of magnetism acts.

magnetic resonance imaging (MRI)

A non-invasive medical diagnostic technique that uses high-frequency radio-waves and a strong magnetic field to see inside body tissues.

malignant

Of a tumor, tending to invade normal tissue or to recur after removal; cancerous.

mammography

Uses low dose x-ray systems to produce images of the human breasts

medical contraindication

A symptom or condition that makes a particular treatment or procedure impossible.

medical file, medical record

A chronological written account of a patient's examination and treatment that includes the patient's medical history and complaints...

Diagnostic Imaging Glossary (continued)

medical imaging

The technique and process used to create images of the human body for clinical purposes or medical science.

medicine

An agent, such as a drug, used to treat disease or injury.

needle

A very thin, pointed steel tube that is pushed through the skin so that something (such as a drug) can be put into your body or so that blood or other fluids can be taken from it.

nodule

A small lump, swelling, or collection of tissue.

Nuclear Medicine

A medical specialty involving the application of radioactive substances in the diagnosis and treatment of disease.

nurse

A person who is trained to care for sick or injured people and who usually works in a hospital or doctor's office.

obstetrician

A doctor specializing in the care of women during pregnancy, childbirth, and the recuperative period following delivery.

orderly

An attendant in a hospital responsible for the nonmedical care of patients and the maintenance of order and cleanliness.

operating room

The room in which surgery takes place at a hospital.

pad

A thin, cushion like mass of soft material used to fill, to give shape, or to protect against jarring, scraping, or other injury

Pathology

The science of the causes and effects of diseases, especially the branch of medicine that deals with the laboratory examination of samples of body tissue for diagnostic or forensic purposes.

photoelectric effect

The observation that many metals emit electrons when light shines upon them.

pregnant

Carrying a fetus or fetuses within the womb.

prescription

An instruction written by a medical practitioner that authorizes a patient to be provided a medicine or treatment.

prosthesis

An artificial body part, such as a leg, a heart, or a breast implant.

pulse

To take the pulse of the heart of someone, at his wrist.

radiation

It's a process in which electromagnetic waves (EMR) travel through a vacuum or through matter-containing media; the existence of a media to propagate the waves is not required.

radio wave

A type of electromagnetic radiation with wavelengths in the electromagnetic spectrum longer than infrared light.

radioactive

The process by which an unstable atom emits radiation.

radioactive dye

A dye which gives off a small amount of radiation and used in some types of scan.

radiological file

A chronological account of all the radiological images that the patient did.

radiologist

A medical specialist who uses radioactive substances and X-rays in the treatment of disease.

radiographer

A person trained to operate a scanner and who looks after patients during their appointment.

radiolucent cushion

Almost entirely transparent to radiation; almost entirely invisible in x-ray photographs and under fluoroscopy.

Radio-pharmacology

The study and preparation of radioactive pharmaceuticals.

radioprotection

Protection against harmful effects of radiation.

radioscopy

Examination of the inner structure of optically opaque objects by x-rays or other penetrating radiation; radiology.

radiotherapy

Uses radiation to shrink, and sometimes eradicate, cancerous cells/growths in and on the body.

raise

To move to a higher position; elevate.

restraints

An instrument or a means of restraining the patient to prevent movement.

resolution

The degree of detail visible in a photographic or computer image.

Diagnostic Imaging Glossary (continued)

sedative

A drug taken for its calming or sleep-inducing effect.

skeleton

An internal or external framework of bone, cartilage, or other rigid material supporting or containing the body of an animal or plant.

skull

A framework of bone or cartilage enclosing the brain of a vertebrate; the skeleton of a person's or animal's head.

sonogram

An image of a body organ or fetus created with reflected high-frequency sound waves.

sonography

An imaging procedure using the reflections of high-frequency sound waves to construct an image of a body organ; commonly used to observe fetal growth or study bodily organs.

spleen

A large, highly vascular lymphoid organ, lying in the human body to the left of the stomach below the diaphragm, serving to store blood, disintegrate old blood.

stenosis

The abnormal narrowing of a passage in the body.

sterile field

A specified area, such as within a tray or on a sterile towel, that is considered free of microorganisms.

stretcher

A litter, usually of canvas stretched over a frame, used to transport the sick, wounded, or dead.

stretcher-bearer

A person who helps to carry a stretcher, esp in wartime.

swallow

To cause food or drink to pass through the mouth and throat into the stomach.

swelling

An abnormal enlargement of a part of the body, typically as a result of an accumulation of fluid.

syringe

A medical instrument used to inject fluids into the body or draw them from it.

thorax

The area of the body that is located between the abdomen and the neck.

thyroid

A gland that makes and stores hormones that help regulate the heart rate, blood pressure, body temperature, and the rate at which food is converted into energy.

tumor

A swelling of a part of the body, generally without inflammation, caused by an abnormal growth of tissue, whether benign or malignant.

ultrasonography

A technique using echoes of ultrasound pulses to delineate objects or areas of different density in the body.

ultrasound

An oscillating sound pressure wave with a frequency greater than the upper limit of the human hearing range.

urinary bladder

A membranous sac for temporary retention of urine.

urinate

To excrete or void urine.

urography

An X-ray technique for producing an image of the renal pelvis and urinary tract by the introduction of a radiopaque fluid.

vein

A blood vessel that carries blood toward the heart.

vertebral column

The series of articulated vertebrae, separated by intervertebral disks and held together by muscles and tendons, that extends from the cranium to the coccyx

visible spectrum

The portion of the electromagnetic spectrum that is visible to the human eye.

waiting room

A part of a building where people sit or stand until the event they are waiting for occurs

wheelchair

A device used for mobility by people for whom walking is difficult or impossible, due to illness or disability.

x-ray

A form of electromagnetic radiation, similar to light but of shorter wavelength and capable of penetrating solids and of ionizing gases

x-ray computed tomography

A technology that uses computer-processed x-rays to produce tomographic images in virtual slices of specific areas of the scanned object, allowing the user to see what is inside it without cutting it open.