
Glossary of Medical Terms

abrasion superficial damage to the skin, generally not deeper than the epidermis (the outermost layer of the skin)

acute of recent origin

anatomical pathology a medical specialty concerned with the diagnosis of disease and gaining additional medical information based on the examination of organs, tissues, and cells

anthropology the scientific study of humans; includes the investigation of human origin and the development of physical, cultural, religious, and social attributes

artefact artificial product; in relation to autopsy, a sign or finding imitating pathology, disease, or injury occurring in life

asphyxia sudden death due to lack of oxygen such as occurs with smothering, suffocation, neck compression (e.g., strangulation), and other modes of interference with oxygen delivery in the body

Asphyxia is a complex and confusing term used in varying ways by different authors. The common notion of asphyxia is that of a mechanical interference of some sort with breathing.

mechanical asphyxia, the common understanding of the term asphyxia; mechanical interference with breathing, including smothering, choking, throttling (manual strangulation), ligature strangulation, hanging, and severe sustained compression of the chest (and abdomen) termed traumatic asphyxia

atrophy the partial or complete wasting away of a part of the body

Causes of atrophy include poor nourishment, poor circulation, loss of hormonal support to the organ, loss of nerve supply, disuse, disease, or lack of exercise.

autopsy post-mortem dissection and examination of the organs and tissues of the deceased to discover disease and injury causing or contributing to death

axon a nerve fibre

bilateral both sides (of the body)

biochemistry (biochemical) relating to the chemical substances present in living organisms and the reactions and methods used to identify or characterize them

biomechanics the application of mechanical forces to living organisms and the investigation of the effects of the interaction of force and the body or system; includes forces that arise from within and outside the body

biopsy the removal of a sample of tissue from a living person for laboratory examination

brainstem the stem-like part of the brain that connects the cerebral hemispheres with the spinal cord

bruise, bruising bleeding into tissues from damaged blood vessels, usually as a result of external injury; most commonly understood as a bruise in or under the skin but can occur in any tissue or organ (e.g., muscle, heart, liver)

burr hole surgery a form of surgery in which a hole is drilled into the skull, exposing the dura mater (the outermost layer of membrane surrounding the brain and spinal cord) in order to treat health problems; used to treat epidural and subdural hematomas and to gain surgical access for other procedures such as intracranial pressure monitoring

cardiac pertaining to the heart

cardiorespiratory arrest the cessation both of normal circulation of the blood due to failure of the heart and of normal breathing

cerebellum the portion of the brain forming the largest segment of the rhombencephalon (hind brain)

It is involved in the synergic control of skeletal muscles and plays an important role in the coordination of voluntary movements.

cerebral relating to or located in the hemispheres of the brain (cerebrum)

cerebral contusion traumatic brain injury in the form of bruised brain tissue

Often appearing as multiple microhemorrhages (small blood vessel leaks into brain tissue), they occur primarily under the site of an impact. Contusions can cause increases in intracranial pressure and damage to delicate brain tissue.

cerebral edema accumulation of excessive fluid in the substance of the brain

The brain is especially susceptible to injury from edema, because it is located within a confined space and cannot expand. Also known as brain edema, brain swelling, swelling of the brain, and wet brain.

cerebrum the largest part of the brain, consisting of two hemispheres separated by a deep longitudinal fissure

clinical relating to patients

congenital born with

congestion an excessive amount of blood in an organ or in tissue

contusion bruise

***coup/contre coup* injuries** The *coup* is the damage to the brain just beneath the site of impact. *Contre coup* is damage that may occur approximately to the opposite side of the brain as the brain bounces against the skull.

craniotomy a surgical operation in which part of the skull, called a bone flap, is temporarily removed in order to access the brain

CT (computerized tomography) CT scanning computes multiple X-ray images to generate cross-sectional and other views of the body's anatomy. It can identify normal and abnormal structures and be used to guide medical procedures.

cyanosis a bluish coloration of the skin due to the presence of deoxygenated hemoglobin in blood vessels near the skin surface, i.e., in life, a sign of oxygen deficiency

cyanosis of the nailbeds See *cyanosis*. Cyanosis of the nailbeds is less serious than central (blue lips and mucous membranes) cyanosis. Post-mortem, this is an artefact.

diagnosis the term denoting the disease or syndrome a person has or is believed to have

diastasis the separation of normally joined parts, such as the separation of adjacent bones without fracture or of certain abdominal muscles during pregnancy

Diastasis occurring with bones in the skull is a possible indication of cerebral edema.

diffuse axonal injury disruption of the axons, not necessarily directly due to trauma

duodenum the first part of the small intestine

edema an abnormal buildup of fluid between tissue cells

en bloc as a whole or en masse; used to refer to surgical excision

entomology the study of insects

epicardium the protective outer layer of the wall of the heart

epidemiology (epidemiological) the study of the distribution and determinants of health-related states and events in populations, and the application of this study to the control of health problems

Epidemiology is concerned with the traditional study of epidemic diseases caused by infectious agents, and with health-related phenomena including acci-

dents, suicide, climate, toxic agents such as lead, air pollution, and catastrophes due to ionizing radiation.

epiglottis (epiglottic) the flap of cartilage lying behind the tongue and in front of the entrance to the larynx (voice box) that keeps food from going into the trachea (windpipe) during swallowing

When it gets infected and inflamed, it can obstruct, or close off, the windpipe. This obstruction may be fatal unless treated quickly.

etiology the cause of a disease or the study of the causes of disease

exhumation removal of a dead body from the grave after it has been buried

exsanguination a loss of blood

filicide the killing of a child by a parent

fissure a groove, natural division, deep furrow, cleft, or tear in a part of the body

formalin an aqueous solution of 37% formaldehyde (a colourless gas with a distinctive smell that, when dissolved in water, gives a solution in which organic specimens are preserved)

fracture a break of a bone

ganglion a mass of nervous tissue composed principally of neuron cell bodies and lying outside the brain or spinal cord

general pathology the branch of medicine concerned with all aspects of laboratory investigation in health and disease

The discipline incorporates both morphological and non-morphological diagnostic techniques in the areas of anatomical pathology, medical biochemistry, medical microbiology, hematopathology, and transfusion medicine.

hematological pathology the domain of laboratory medical practice and science concerned with the study, investigation, diagnosis, and therapeutic monitoring of disorders of blood, blood-forming elements, hemostasis, and immune function in adults and children

hematoma a collection of blood, generally the result of hemorrhage/internal bleeding; usually resulting from injury (e.g., bruises in skin) but indicative of more serious injury when located within organs, most critically inside the skull, where hematomas may place pressure on the brain

hemorrhage the loss of blood from a ruptured blood vessel

Hirschsprung's disease the most common cause of lower gastrointestinal obstruction in neonates

Patients with this disease exhibit signs of an extremely dilated colon and accompanying chronic constipation, fecal impaction, and overflow diarrhea.

histology the study of tissue sectioned as a thin slice, using a microtome (a mechanical instrument used to cut biological specimens into very thin segments for microscopic examination)

histopathology a branch of pathology concerned with the study of the microscopic changes in diseased tissues

hypoxic-ischemic encephalopathy brain damage caused by a lack of oxygen and blood flow to the brain

Brain damage occurs very quickly and, once it occurs, is, effectively, irreversible.

infanticide Infanticide is defined in the *Criminal Code*, RSC 1985, c. C-46, s. 233, as follows: "A female person commits infanticide when by a wilful act or omission she causes the death of her newly-born child, if at the time of the act or omission she is not fully recovered from the effects of giving birth to the child and by reason thereof or of the effect of lactation consequent on the birth of the child her mind is then disturbed."

The term has been used historically in forensic pathology to indicate all forms of homicide of babies around the time of birth.

inflammation one mechanism the body uses to protect itself from invasion by foreign organisms and to repair tissue trauma

Its clinical hallmarks are redness, heat, swelling, pain, and loss of function of a body part. It is also marked by the migration of white blood cells into the affected area; this can be seen under the microscope.

intracranial within or introduced into the skull

intracranial pressure Increased intracranial pressure is a serious medical problem because it causes the compression of important brain structures and restricts the blood flow through blood vessels that supply the brain, possibly damaging it. Symptoms in infants include a bulging fontanelle (one of two “soft spots” on an infant’s head), lethargy, and vomiting.

intrathoracic within the cavity of the chest

laceration a wound or irregular tear of the flesh caused by a blunt impact

larynx (laryngeal) also known as the voice box, a structure in the neck involved in protection of the trachea (windpipe) and in sound production

lesion a circumscribed area of pathologically altered tissue, an injury or wound, or a single patch in a skin disease

liver the largest solid organ in the body, situated on the right side below the diaphragm

The liver secretes bile (a fluid) and is the site of numerous metabolic functions.

lividity (post-mortem) a dark-blue staining of the dependent surface of a cadaver, resulting from the pooling and congestion of blood

malignant growing worse; resisting treatment (said of cancerous growths); tending or threatening to produce death

mandible (mandibular) the lower jaw

microbiology (microbiological) the scientific study of micro-organisms

neuropathologist a pathologist who specializes in the diagnosis of diseases of the brain and nervous system by microscopic examination of the tissue and other means

odontology a science dealing with the teeth, their structure and development, and their diseases

forensic odontology, a branch of forensic medicine that deals with teeth and marks left by teeth (as in identifying criminal suspects or the remains of a dead person)

osteology the science concerned with the structure and function of bones

pancreas a gland located behind the stomach

The secretions of the pancreas consist of powerful enzymes that contribute to the digestion of all food types in the small intestine.

parietal bone the main bone of the side and top of the skull

pathologist a medical professional trained to examine tissues, cells, and specimens of body fluids for evidence of disease

pathology the study of the nature and cause of disease, which involves changes in structure and function

pediatrics that branch of medicine involving the diagnosis and treatment of illness in children

petechial hemorrhage (petechiae) pinpoint hemorrhage; tiny purple or red spots that appear on the skin because of small spots of bleeding in the skin

pulmonary concerning, affecting, or associated with the lungs

pulmonary congestion a condition characterized by the engorgement of the pulmonary vessels

pulmonary pleura the portion of the pleura (the delicate membranous covering of the lungs) that covers the surface of the lungs and dips into the fissures between its lobes

radiologist a physician who uses X-rays or other sources of radiation, sound, or radio-frequencies for diagnosis and treatment

radiology the branch of medicine concerned with radioactive substances, including X-rays, and the application of this information to prevention, diagnosis, and treatment of disease

re-bleeding (of a healing subdural hemorrhage) refers to the controversy in pediatric forensic pathology about whether a relatively insignificant old or heal-

ing subdural hemorrhage can develop into a massive and life-threatening acute subdural hemorrhage as a result of normal handling or minor trauma

retinal hemorrhage bleeding onto the surface of the retina (the light-sensitive membrane in the back of the eye) caused by the rupture of the tiny blood vessels that lie on the surface of the retina

Retinal hemorrhage indicates increased pressure within the skull, possibly resulting from head trauma and bleeding. It was once believed to be pathognomonic (a sign or symptom that is so characteristic of a disease that it makes the diagnosis) of shaken baby syndrome, although this is no longer generally believed to be true.

rigor mortis the stiffening of the muscles after death

shaken baby syndrome (SBS) sometimes called shaken infant syndrome; a serious illness characterized by subdural hemorrhage, petechial and other hemorrhages in the retina, and hypoxic-ischemic encephalopathy, usually in circumstances where there is no evidence of blunt impact to the head

Injuries to the neck such as hemorrhage around cervical spine nerve roots may also be present.

skeletal survey a radiological study of the entire skeleton to look for evidence of occult fractures, multiple myeloma, metastatic tumour, or child abuse

skull sutures the fibrous joints between the bones of the skull that allow the baby's skull to expand with the growing brain

spinal cord part of the central nervous system

The spinal cord is an ovoid column of nerve tissues that extends from the medulla to the lumbar vertebrae. It is the pathway for sensory impulses to the brain and motor impulses from the brain.

spleen a dark-red, oval lymphoid organ in the upper-left abdominal quadrant, posterior and slightly inferior to the stomach

After birth, the spleen forms lymphocytes (white blood cells responsible for much of the body's immune protection).

status epilepticus continuous seizure activity without a pause, that is, without an intervening period of normal brain function

subdural hematoma (or subdural hemorrhage) caused through the stretching and tearing of small veins in the brain, most often resulting from head injury

Blood collects between the dura (the outer protective covering of the brain) and the arachnoid (the middle layer of the membranes that envelop the central nervous system), often causing an increase in intracranial pressure and possible damage to delicate brain tissue.

Onset of symptoms is slower than other types of hemorrhaging, usually occurring within 24 hours, but possibly taking up to two weeks to appear. Signs of subdural hemorrhage may include loss of consciousness or fluctuating levels of consciousness, numbness, disorientation, nausea or vomiting, personality changes, a deviated gaze, and difficulty in speaking and walking.

subgaleal bruise bruising between the galeal aponeurosis, a fibro-muscular layer effectively attaching the scalp to the skull

sudden infant death syndrome (SIDS) the sudden unexpected death of an infant under 12 months of age, with onset of the fatal episode apparently occurring during sleep, that remains unexplained after a thorough investigation, including performance of a complete autopsy and review of the circumstances of the death and clinical history

sudden unexplained death syndrome (SUDS) a broader categorization of deaths in infancy that includes unexplained deaths other than sudden infant death syndrome

SUDS is sometimes referred to slightly differently as “sudden unexpected death syndrome” or “sudden unidentified death syndrome.” “Sudden unexpected death in infancy” or SUDI is also used.

surgical pathology the application of pathology procedures and techniques for investigating tissues removed surgically

thoracic involving or located in the chest

thymus a small glandular organ situated behind the top of the breastbone, consisting mainly of lymphatic tissue

toxicology the division of medical and biological science concerned with toxic substances, their detection, their avoidance, their chemistry and pharmacological actions, and their antidotes and treatment

ulcer(ation) a lesion which often heals poorly, on a surface such as skin, cornea, or mucous membrane

viscera the internal organs of the body, specifically those within the chest (e.g., the heart and lungs) or abdomen (e.g., the liver, pancreas, and intestines)

Wilms' tumour a rapidly developing tumour of the kidney that usually occurs in children