



## Library Article

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### Medical & Diagnostic Terminology - Definitions

**Acidosis** – A disturbance of acid base balance leading to an excessive accumulation of acids or loss of bicarbonate.

**Anaphylactic (shock)** – State of collapse resulting from injection of a substance to which the animal has been sensitized can be deliberate injection or insect sting.

**Anorectic/Anorexia** – Having no appetite/Loss of appetite.

**Ascites** – Abnormal accumulation of serous fluid in the abdominal cavity due to interrupted return of blood to the heart, obstruction of the vena cava or portal vein, obstruction of lymphatic drainage or electrolyte imbalance.

**Corticosteroids** – Any steroid hormone from the cortex of the adrenal gland, or a synthetic drug that mimics their function such as prednisolone.

**Edema** – Local or generalized abnormal accumulation of fluid in tissues (oedema in the UK).

**Ehrlichiosis** – Infection with *Ehrlichia canis* (a rickettsial bacteria) carried by the brown dog tick that attacks the white blood cells (monocytes).

**Endo** – A prefix that means inside.

**Endotoxins** – A toxin confined within a bacterium and only released when the bacterial wall is breached.

**Enzymes** – Complex proteins that act as catalysts and are produced by living cells. They speed up biochemical reactions without being changed in the process. They are found most often in digestive fluids.

**Hyper** – A prefix that means above hence an excess or higher than normal.

**Hypo** – A prefix that means under indicating less than or below normal - a deficiency.

**Immune-mediated disease** – Diseases that are mediated through the immune system.

Either this over-reacts to an external threat (contact dermatitis) or the immune system fails to distinguish self from non self, and attacks the animal's own body – autoimmune disease eg., autoimmune hemolytic anemia (AIHA) or Addison's disease.

**Immune-mediated thrombocytopenia (ITP)** – Autoimmune destruction of the blood platelets a.k.a as idiopathic (of unknown cause) thrombocytopenia (low platelets).

**Ischemia/ischemic** – A restriction of blood supply leading to a local and temporary anemia.

**Ketones** – The end products of fat metabolism. Their levels will be high when carbohydrates are scarce or not properly used – diabetes mellitus, starvation, high fat diet, pregnancy or after anesthesia.

**Ketosis** – Significant accumulation of ketones in the body and urine.

**Lactic acid** – A substance formed by the break down of carbohydrate in the body. It accumulates in working muscles when production exceeds removal.



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**Leukemia** – Cancer resulting in unrestrained production and growth of white cells and their precursors in the bone marrow and tissues.

**Lipemia** – An excess of fat in the blood.

**Lymph** – A normally clear, colorless fluid – becomes milky when laden with fat – similar to blood without red cells, and formed in tissue spaces throughout the body. It flows through vessels that collect into the thoracic or right lymph ducts and enters the blood in the neck. It passes through the lymph nodes which remove foreign particulate material especially bacteria from the lymph. They may also filter out cancer cells. Lymph is used to carry fat and also protein that is absorbed from the intestines.

**Lymph system**- Lymphatic system is a network of organs, lymph nodes, ducts and vessels that transport lymph. Organs include tonsils, thymus gland and spleen. Its major role is in providing immunity.

**Mast cells** – These are connective tissue cells containing anticoagulant heparin and histamine granules. They are part of the normal body defense system against infection and help blood coagulation in injury.

**Metabolism/Metabolic** - The sum of all the physical & chemical changes that take place in a living organism, all the energy and material transformations that occur within living cells./Relating to metabolism.

**Microbes** – Bacteria, germs producing fermentation, putrefaction and disease.

**Morphology** – The science of structure and form without regard to function.

**Morphologically** – Relating to morphology.

**Myopathy** – Any striated muscle disease or abnormal condition.

**Myositis** – Inflammation of the muscle tissue.

**Necrosis** – Death of tissue or bone surrounded by normal structures, or mass death of tissue as opposed to gradual destruction. The result of insufficient blood supply, trauma, radiation, chemical agents or toxins.

**Nephron** – The structural and functional unit of the kidney that achieves filtration, selective secretion and reabsorption to finally produce urine. There are about a million nephrons in a kidney.

**Parvovirus** – Viral infection spread by direct or indirect fecal contact. It primarily affects dogs under a year of age and those that are immunocompromised. Usually it produces gastrointestinal disease, and destroys the absorptive surface of the intestinal tract. It also attacks the immune system – lymph nodes, bone marrow. Bacteria can freely cross the damaged intestinal wall and enter the circulation leading to sepsis. It is frequently fatal. A rarer form of the disease attacks the heart muscle of puppies in utero and neonates and usually results in sudden death. Still rarer, all of the organs in the neonate or fetus can be destroyed by the virus.



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**Peptide** – Compounds of two or more amino acid molecules. About twenty amino acids – organic compounds containing both amino and carboxyl radicals - combine to make all the proteins found in the body. Some amino acids can be made by the body, but some “essential” amino acids have to be consumed in the diet.

**Petechiae/petechiation** – small, purplish hemorrhagic spots that appear in skin or mucus membrane due to abnormalities in blood clotting or high fevers./The presence of petechiae.

**Portal blood** – Blood from the capillaries in the intestinal walls drains into the portal vein and is taken first to the liver. There nutrients are removed and processed and any toxins absorbed from the digestive system and detoxified and metabolized.

**Pyometra** – Infection of the uterus, literally pus in the uterus.

**Sepsis** – Disease resulting from the presence of microorganisms or their poisonous products in the blood stream. Usually results in fever.

**Urease** – An enzyme that catalyzes the breakdown of urea.

**Uremia** – Toxic condition due to insufficient kidney function and resulting in the retention of nitrogenous waste in the body that would normally be excreted.

**Venipuncture** – puncture of a vein for any purpose, often used synonymously for phlebotomy - the withdrawal of blood from the vein.