

Microbiology – Glossary

Antagonism - Mutual opposition or contrary action. The inhibition of one bacterial organism by another.

Antibody - Glycoprotein substance developed in response to, and interacting specifically with an antigen. Also known as immunoglobulin.

Antigen - A foreign substance that stimulates the formation of antibodies that interact specifically with it.

Antisepsis - The prevention of sepsis by preventing or inhibiting the growth of causative organisms.

Attenuation – Dilution or weakening of virulence of a microorganism; reducing or abolishing pathogenicity.

Autotrophic Bacteria – Self-nourishing bacteria that are capable of growing in the absence of organic compounds. Organisms that obtain carbon from carbon dioxide.

Bacillus (pl. bacilli) - Any rod shaped organism.

Bacteria – A procaryotic one-celled microorganism of the Kingdom Monera, existing as free living organisms or as parasites, multiplying by binary fission and having a large range of biochemical properties.

Bacterial Colony – A visible group of bacteria growing on a solid medium, presumably arising from a single microorganism.

Bactericide – An agent that destroys bacteria but not necessarily their spores.

Bacteriology – The science that studies bacteria.

Binary Fission - A method of asexual reproduction in which the cell splits into two parts, each of which develops into a complete individual. (simple transverse division)

Biological Vector – An arthropod vector in which the disease causing organism multiplies or develops within the arthropod prior to becoming infective for a susceptible individual.

Chlamydia – A large group of non-motile, gram-negative intracellular parasites.

Coccus (pl. cocci) – A type of bacteria that is spherical or ovoid in form.

Commensalism – The symbiotic relationship of two organisms of different species in which one gains some benefit such as protection or nourishment.

Communicable – A disease that may be transmitted directly or indirectly from one individual to another.

Contamination - The act of introducing disease germs or infectious material into an area or substance.

Diplobacilli – A double bacillus, two being linked end to end to each other.

Diplococcus – A genus of bacteria that are gram-positive organisms occurring in pairs. Also called streptococcus.

Disinfectant – A chemical or physical agent that kills disease causing microorganisms; generally used on inanimate objects.

Disinfection – The destruction of infectious agents by chemical or physical means directly applied to an inanimate object.

Drug-fast – Resistant, as in bacteria, to the action of a drug or drugs.

Endemic - A disease that occurs continuously in a particular region but has low mortality.

Endogenous Infection – Produced or arising from within a cell or organism.

Endotoxin – Bacterial toxin confined within the body of a bacterium freed only when the bacterium is broken down, found only in gram-negative bacteria.

Epidemic – Appearance of an infectious disease or condition that attacks many people at the same time in the same geographical area.

Exogenous Infection – originating outside an organ or part.

Exotoxin - A toxin produced by a microorganism and excreted into its surrounding medium, generally protein in nature.

Facultative Bacteria – Having the capacity to do something that is not compulsory, in particular having the ability to live or adapt to certain conditions.

Focal Infection – One in which the organisms are confined to one area but enter the blood or lymph vessel and spread to other parts of the body.

Fomite – Any inanimate object to which infectious material adheres and can be transmitted.

Fungus (pl. fungi) – A group of diverse and widespread unicellular and multicellular organisms, lacking chlorophyll, usually bearing spores and often filamentous.

Fungicide - An agent that kills fungi and their spores.

General Infection – An infection that becomes systemic.

Germicide – A substance that destroys microorganisms.

Heterotrophic Bacteria – An organism that requires complex organic food from a carbon source in order to grow and develop.

Indigenous Flora – plant life occurring or adapted for living in a specific environment.

Infection - The state or condition in which the body (or a part) is invaded by a pathogenic agent that under favorable conditions, multiplies and produces injurious effects.

Local Infection – Infection caused by germs lodging and multiplying at one point in a tissue and remaining there.

Maximum Temperature – Temperature above which bacterial growth will not take place.

Mechanical Vector - A living organism or an object that is capable of transmitting infections by carrying the disease agent on its external body parts or surface.

Mesophile – Bacteria that prefers moderate temperature and develops best at temperatures between 25 degrees centigrade and 40 degrees centigrade.

Microaerophilic - A microorganism that requires very little free oxygen.

Microbiology – Scientific study of microorganisms and their effect on other living organisms.

Minimum Temperature – Temperature below which bacterial growth will not take place.

Mixed Infection – Infection caused by two or more organisms.

Mutualism - Relationship in which organisms of two different species live in close association to the mutual benefit of each.

Mycology – The branch of science concerned with the study of fungi.

Mycoplasmas – Bacteria of the Mycoplasma genus that are found in humans and most have no cell wall. The smallest free-living organisms presently known, being intermediate in size between viruses and bacteria.

Opportunist – An organism that exists as part of the normal flora but may become pathogenic under certain conditions.

Optimum Temperature – Temperature at which organisms grow best.

Osmotic Pressure – Pressure that develops when two solutions of different concentrations are separated by a semipermeable membrane.

Pandemic - A disease affecting the majority of the population of a large region or one that is epidemic at the same time in many different parts of the world.

Parasitism – An interactive relationship between two organisms in which one is harmed and the other benefits.

Pathogenicity –The state of producing or being able to produce pathological changes and disease.

Primary Infection – An original infection from which a second one originates.

Prion – A small proteinaceous infectious particle that is resistant to most procedures that modify nucleic acids.

Protozoa – One-celled organisms of the Kingdom Protista; most are unicellular although some are colonial.

Protozoology - The science that deals with the study of protozoa.

Psychrophile – Bacteria that prefer cold, thriving at temperatures between zero degrees centigrade and 25 degrees centigrade.

Rickettsia – A genus of gram-negative, pathogenic, intracellular parasitic bacteria.

Rickettsiology – Area of science that studies rickettsia.

Secondary Infection – Infection caused by a different organism than the one causing the primary infection.

Septicemia - A condition characterized by the multiplication of bacteria in blood.

Sporadic – A disease which occurs occasionally or in scattered instances.

Staphylococcus – A genus of gram-positive, non-motile, opportunistic bacteria which tend to aggregate in irregular, grape-like clusters.

Sterilization – Process of completely removing or destroying all life forms or their products on or in a substance.

Streptobacilli – A genus of bacteria containing gram-negative rods, which form a chain-like colony.

Streptococci - A gram-positive cocci that occurs in chains.

Strict (obligate) Aerobe – A microbe that can only live in the presence of oxygen.

Strict (obligate) Anaerobe – A microbe that can only live in an area without oxygen present.

Strict (obligate) Parasite – A parasite that is completely dependent on its living host for survival.

Symbiosis - The living together in close association of two organisms of different species.

Synergism – The harmonious action of two microorganisms producing an effect that neither could produce alone.

Thermophile – Bacteria that thrive best at high temperatures between 40 degrees centigrade and 70 degrees centigrade.

Toxemia – Blood distribution throughout the body of poisonous products of bacteria growing in a focal or local site, thus producing generalized symptoms.

Toxin – A poisonous substance of plant, animal, bacterial, of fungal origin.

True Pathogen – Real or genuine disease producing organism.

Viricide – An agent destructive to viruses.

Virology – The study of viruses and viral diseases.

Virulence – Relative power and degree of pathogenicity possessed by organisms to produce disease.

Virus – An intracellular, infectious parasite capable of living and reproducing only in living cells.