

Clinical Significance of Microbial Infection

Stephanie George*

Department of Microbiology, Morehouse School of Medicine, Atlanta, USA

Description

An infection occurs only when a microorganism enter a person's body and cause harm. The microorganism uses that person's body to sustain itself, reproduce, and further colonize. These infectious microscopic organisms are referred to as pathogens, and that they can multiply quickly. Examples of pathogens include: bacteria, viruses and fungi. A few harmful microbes, such as 1% of bacteria, can invade our body (the host) and make us ill. Microbes cause infectious diseases like flu and measles.

There is also strong evidence that microbes may contribute to several non-infectious chronic diseases like some sorts of cancer and coronary heart condition. Different diseases are caused by differing kinds of microorganisms. Microbes that cause disease are called pathogens.

Microbes enter our body through four various ways such as:

- Respiratory tract (mouth and nose) e.g. influenza virus which causes the flu.
- Gastrointestinal tract (mouth oral cavity) e.g. *Vibrio cholerae* which causes cholera.
- Urogenital tract e.g. *Escherichia coli* which causes cystitis.
- Breaks in the skin surface e.g. *Clostridium tetani* which causes tetanus.

There are several bacterial infections such as, strep throat, bacterial urinary tract infections (UTIs), often caused by coliform bacteria, bacterial food poisoning, often caused by *E. coli*, *Salmonella*, or *Shigella*, bacterial cellulitis, like thanks to *Staphylococcus aureus* (MRSA), bacterial vaginosis, gonorrhea, chlamydia, syphilis, *Clostridium difficile* (*C. diff*), tuberculosis, pertussis, pneumonia, bacterial meningitis, Lyme disease, cholera, botulism, tetanus and anthrax.

Bacterial infections are most often treated with antibiotics. Antibiotics are medications that affect bacterial growth. They can either impede

bacteria from multiplying or end them outright. There are different classes of antibiotics. The one you're prescribed will depend upon what sort of bacterium is causing your infection. Additionally, misuse of antibiotics has caused many bacteria to develop resistance against them.

Infection can be transmitted through various ways like direct contact, indirect contact, through contaminated food or water, from an infected animal and from a bug bite.

Direct contact: Direct contact with the bodily fluids of an individual who has an infection also can spread infections in some instances. This can include things like: blood, nasal secretions, saliva, semen and vaginal secretions.

Indirect contact: Some infectious organisms are often found throughout your environment. You can inherit contact with this stuff then spread the infection to yourself. A common example of this is often when someone with the flu coughs or sneezes. Influenza virus can then be present within the air or on objects like door and tap handles. If you touch a contaminated object then touch your face, mouth, or nose, you'll become infected.

Through contaminated food or water: You can get these infections by consuming things like: foods prepped or prepared in unsanitary conditions, raw or undercooked foods, such as produce, meats, or seafood, improperly canned foods, unpasteurized milks or juices and foods that have been improperly stored or refrigerated.

From an infected animal: Some infections are spread to people from an infected animal. One example is that the rabies virus, which you'll get if an infected animal, bites you. Another example is toxoplasmosis. You can come down with this parasitic disease from changing an infected cat's litter box.

From a bug bite: There are many various sorts of biting bugs, including ticks, mosquitoes, and lice. In some cases, you'll get an infection if a bug carrying around an infectious microorganism bites you. Some examples include malaria, Lyme disease, and West Nile Virus.

How to cite this article: George, Stephanie. "Clinical Significance of Microbial Infection." *Med Microb Diagn* 10 (2021): e108.

*Address for Correspondence: Stephanie George, Department of Microbiology, Morehouse School of Medicine, Atlanta, USA, E-mail: George_stephan@msm.edu

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Received May 03, 2021; Accepted May 18, 2021; Published May 25, 2021