

Infections and How They Spread

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Germs are found in our air, soil, and water, as well as in and on our bodies, and are a part of everyday life. Some microorganisms are beneficial, while others are dangerous. Many bacteria exist in and on our bodies without harming us, and some even assist us in maintaining our health. Only a small percentage of bacteria can cause infection [1].

When bacteria enter the body, multiply, and create a reaction in the body, it is called an infection. In order for an infection to occur, three conditions must be met:

Source-Infectious agents (germs) can be found in a variety of places (e.g., sinks, surfaces, human skin)

Vulnerable person - who is susceptible to germs and has a means for germs to enter the body

Transmission- is the process through which germs are transferred from one person to another

Source: A virus, bacteria, or other microbe is referred to as a source, which is an infectious agent or germ. Germs can be discovered in a variety of places in healthcare settings. Germs come from a variety of places, including people. Patients and healthcare professionals, Visitors and members of the household. People can become ill with infection symptoms or become infected with bacteria (not have symptoms of an infection but able to pass the germs to others). Germs can also be discovered in healthcare settings. Germs can be found in a variety of places in the environment, including In patient care spaces, dry surfaces are preferred (e.g., bed rails, medical equipment, countertops, and tables), Biofilms, wet surfaces, and moist environments

Vulnerable person: A vulnerable person is one who has not been vaccinated or is otherwise immune, or who has a weaker immune system and a mechanism for pathogens to enter the body. In order for an infection to occur germs must invade tissues, grow, and induce a reaction in a vulnerable person's body .IV catheters and surgical incisions are examples of devices that can

give an entryway, but a good immune system can also help. The factor can increase a patient's vulnerability to infection when they are sick and receiving medical treatment in a healthcare facility are Patients in healthcare who have underlying medical disorders like diabetes, cancer or organ transplantation are more susceptible to infection since these disorders often weaken the immune system's ability to fight infection [2].

Transmission: The method by which germs are transferred to the vulnerable person is referred to as transmission. Germs do not migrate on their own. In healthcare settings, germs rely on people, the environment, and/or medical equipment to migrate. Germs spread in hospital environments by contact (i.e., touching), sprays and splashes, inhalation, and sharps injuries, to name a few (i.e., when someone is accidentally stuck with a used needle or sharp instrument). Germs are moved by touch (example: MRSA or VRE). Healthcare providers' hands, for example, can become contaminated by touching germs on medical equipment or high-touch surfaces, then carry the germs on their hands and disseminate them to a susceptible person if sufficient hand hygiene is not conducted before touching the susceptible individual. When blood borne pathogens enter a person through a skin puncture caused by a used needle or sharp object, infections (for example, HIV, HBV, and HCV) can occur [3].

References

1. Healy, Brendan, and Andrew Freedman. "Infections." *Bmj* 332(2006): 838-841.
2. Delves, Peter J., and Ivan M. Roitt. "The immune system." *N. Engl. J. Med.* 343(2000): 37-49.
3. Koopman, Jim. "Modeling infection transmission." *Annu. Rev. Public Health* 25(2004):303-326.

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