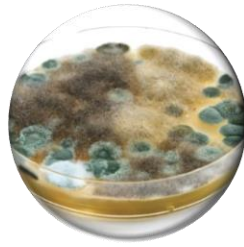


The *BSO Plus Safety Topic* is a review designed from the BSO Plus agenda. This safety topic is your way to stay current on the safety information over the 3 years between BSO Plus and BSR.

BIOLOGICAL HAZARDS

What are biological hazards?

Biological hazards are organisms or products of organisms that pose a threat to human health. These include animals, plants, or "microbes", like bacteria and viruses, which impact our health.



How can we be exposed to biological hazards?

While biological hazards, or "pathogens", can be encountered anywhere in the environment, they are not always recognized in the workplace, where exposure can result in occupational illness or disease. Pathogens can be inhaled, ingested, absorbed through mucous membranes, or injected through the skin. They can be found on hard and soft surfaces, in standing water or other liquids, and in the air. Transmission occurs from person to person by direct or indirect contact.



Direct contact: Infectious diseases are commonly spread through person-to-person contact. Transmission occurs when an infected person touches or exchanges body fluids with someone else, which includes coming into contact with the spray of droplets from coughing or sneezing.



Indirect contact: Infectious diseases can also be spread indirectly through the air and other mechanisms. Examples include airborne transmission over distances, contaminated objects and surfaces, food and drinking water, animal-to-person contact, and insect bites.

What are the potential health risks?

Biological hazards can cause a variety of health effects ranging from skin irritation and allergies to infections and disease, some of which have the potential to be fatal. Workers need to be aware of the potential sources of biological hazards in the workplace in order to protect themselves from exposure.

While the full scope of biological hazards must be assessed and controlled for each workplace, these are some potential sources of biohazards and their possible health effects:

<u>Source</u>	<u>Potential Health Effects*</u>
Blood & Body Fluids	Hepatitis B, Hepatitis C, HIV (Human Immunodeficiency Virus)
Airborne	Influenza, Common cold
Waterborne	Legionnaires disease, Hepatitis A, E.Coli infection
Molds & Fungi	Respiratory problems, Allergic reactions
Insects	Lyme disease, West Nile virus, Allergic reactions
Animal & Bird Droppings	Respiratory problems, Histoplasmosis

DID YOU KNOW ?

The Hepatitis B virus is very resilient – it can survive *outside* the human body for at least 7 days, such as in a dried drop of blood. (www.cdc.gov)

* For additional information on specific illnesses, go to https://www.ccohs.ca/oshanswers/biol_hazards/

General Controls for Biological Hazards:



By implementing controls in the workplace, the risk of biological hazards can be greatly reduced and, in some cases, eliminated completely.

Engineering controls reduce risk by minimizing or eliminating risk through physical means. Maintenance of ventilation systems and isolation of contamination sources are examples of engineering controls.

Administrative controls reduce risk by changing work processes and activities in order to make them safer. Some examples of administrative controls include immunization programs, safe work policies and procedures, and worker training.



Personal Protective Equipment (PPE) should be considered the last line of defence. PPE is often used in addition to other controls to further minimize the risk of exposure. Effective use of PPE requires workers to be trained in the selection, use, and limitations of PPE, and in some cases, such as with respirators, be properly fit tested for their use.