



Biological Hazards

Information for SIAST Students

1. What are biological hazards?

Biological hazards are living things or their substances that can make people sick. They include bacteria, viruses, fungi, parasites, and plants. Biological hazards causing allergies are called *allergens*. Organisms causing disease are called *pathogens*. Some biological hazards produce toxins that can cause a variety of harmful health effects.

2. How can biological hazards (e.g., pathogens) affect me?

Pathogens enter the body by inhalation, ingestion, or skin absorption. The route of entry depends on the pathogen. Once inside the body, they can multiply and spread from person to person. How they are spread is called the *route of transmission*.

A pathogen can spread from one person to another, or indirectly through contaminated water, food, objects, or by infected insects and animals.

3. What can I expect from my employer?

Part XXI of *The Occupational Health and Safety Regulations, 1996* places duties on the employer to protect workers from the hazards of chemical and biological substances.

Section 85, Part VI of the regulations lists additional requirements to protect workers from biological substances that are known or suspected of causing infection in humans. The employer must address all these requirements, where they apply.

For example, health care workers, emergency workers, animal handlers, sewage workers and others may be exposed to pathogens when they deal with infected persons, animals or infectious materials at work.

To protect workers who are likely to be exposed to infectious materials or organisms, the regulations require the employer to develop and implement a written exposure control plan. The plan must be developed in consultation with the occupational health committee and:

- identify workers who may be at risk of exposure
- describe risks associated with the exposure
- describe infection control measures, (exposure control plans in healthcare and correctional facilities must address how the use of safer needles will be implemented and workers trained on their use)
- set out the procedures to be followed in cases of spills or leaks
- set out the procedures to be followed in cases of accidental exposures
- set out the procedures to be followed where a worker believes that he or she has been exposed
- set out the methods of cleaning, disinfecting or disposing of contaminated material
- describe the training that will be provided to workers
- require the investigation and documentation of exposures
- require the investigation of any associated infection or disease

Where a worker has been exposed to blood or infectious body fluids, the employer must take follow-up actions. These include evaluating and assessing the extent of the exposure. For harmful exposures, follow-up actions include making arrangements for confidential post-exposure counseling, medical evaluation or medical intervention by a qualified person in a manner that is acceptable to the Department of Health.

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To contact the Occupational Health and Safety Division:

Visit our website: www.labour.gov.sk.ca

Regina call: 1-800-567-7233 (toll-free) Saskatoon call: 1-800-667-5023 (toll-free)

These follow-up actions are provided at the request of the worker and:

- conducted during the worker's normal working hours; or
- the worker's post-exposure follow-up time must be credited as time at work.

4. How can hazards be controlled?

The employer must provide engineering controls, appropriate equipment, immunization plans, training, written safe work procedures, and personal protective equipment to control biological hazards.

Equipment, particularly ventilation systems and biological safety cabinets, that might become contaminated must be regularly maintained and cleaned. Careful cleaning and disinfecting can also prevent biological hazards from spreading. Laundry workers and equipment handlers can be protected by implementing adequate procedures for segregating, labeling, handling, and disposing of contaminated materials and hazardous waste.

Workers can protect themselves by:

- using training, personal protective equipment (gloves, masks, clothing), and work processes (such as disinfection procedures) provided by the employer
- where applicable, being vaccinated

- using good personal hygiene
- properly containing, labelling, isolating, and disposing of contaminated equipment, material, and waste
- cleaning up spills immediately
- using showers, clothing lockers, and laundry facilities to prevent hazards from being taken home accidentally
- following requirements for dealing with specific hazards
- not eating, drinking, or smoking in work areas
- reporting concerns to the supervisor

You can learn more by reading the Occupational Health and Safety Division's publications:

- *Chemical and Biological Substances Guide*
- *Facts About Moulds*
- *Protecting Emergency Response Workers From Infectious Diseases*
- *Guide to Vaccinations in the Workplace*
- *Guidelines for Latex and Other Gloves*
- *Hantavirus Disease Guide – Updated June 2005*
- *Protecting Outdoor Workers From West Nile Virus*

These publications are available through Saskatchewan Labour's website at www.labour.gov.sk.ca or from the office in Regina.