

■ Biosafety Basics for Laboratory Workers

OVERVIEW

Biosafety Basics for Laboratory Workers provides an initial framework for the practices and principles laboratory workers should use when working with toxins and infectious biological agents.

Five Takeaways:

1. State the practices, training, safety equipment, and special designed laboratory buildings to ensure workers in the community, and environment are protected from accidental exposure or unintentional release of infectious biological agents and toxins.
2. Explain risk assessment frameworks and processes.
3. Identify ways to lower exposure to infectious biological agents through engineering controls.
4. Explore administrative controls and lab safety regulations.
5. Explain the rationale for and types of personal protective equipment (PPE).

AGENDA

Infectious Agent Identification

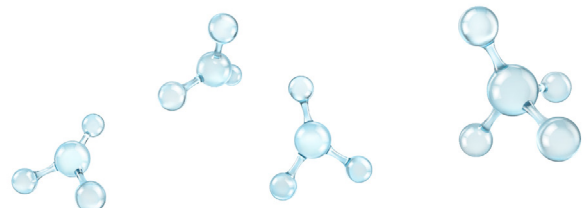
- Biosafety guidelines and manuals
- Infectious biological agents and select agents
- Four biosafety risk levels
- Disease-causing organisms or toxins

Risk Assessment Of Infectious Agents

- Risk factor considerations
- Tools for assessing risk
- Infectious biological agent risk group classifications
- Facility risk assessment levels
- Human risk assessment
- World Health Organization (WHO) process and framework

Engineering Controls

- Five levels of hierarchy of controls
 - Elimination
 - Substitution
 - Engineering control
 - Administrative control
 - Personal protective equipment (PPE)
- Laboratory design



continued

Administrative Controls

- Occupational health program
- Emergency response
- Laboratory biosecurity
- Training
- Job rotations
- Sanitary requirements
- Risk control measures
- Primary biosafety regulations
 - US requirements
 - International requirements
- Regulatory agency reference lists

Personal Protective Equipment (PPE)

- Selecting proper PPE
- Hazards in risk assessment
- Commonly used PPE
- Specialized PPE
- Low risk vs high risk

