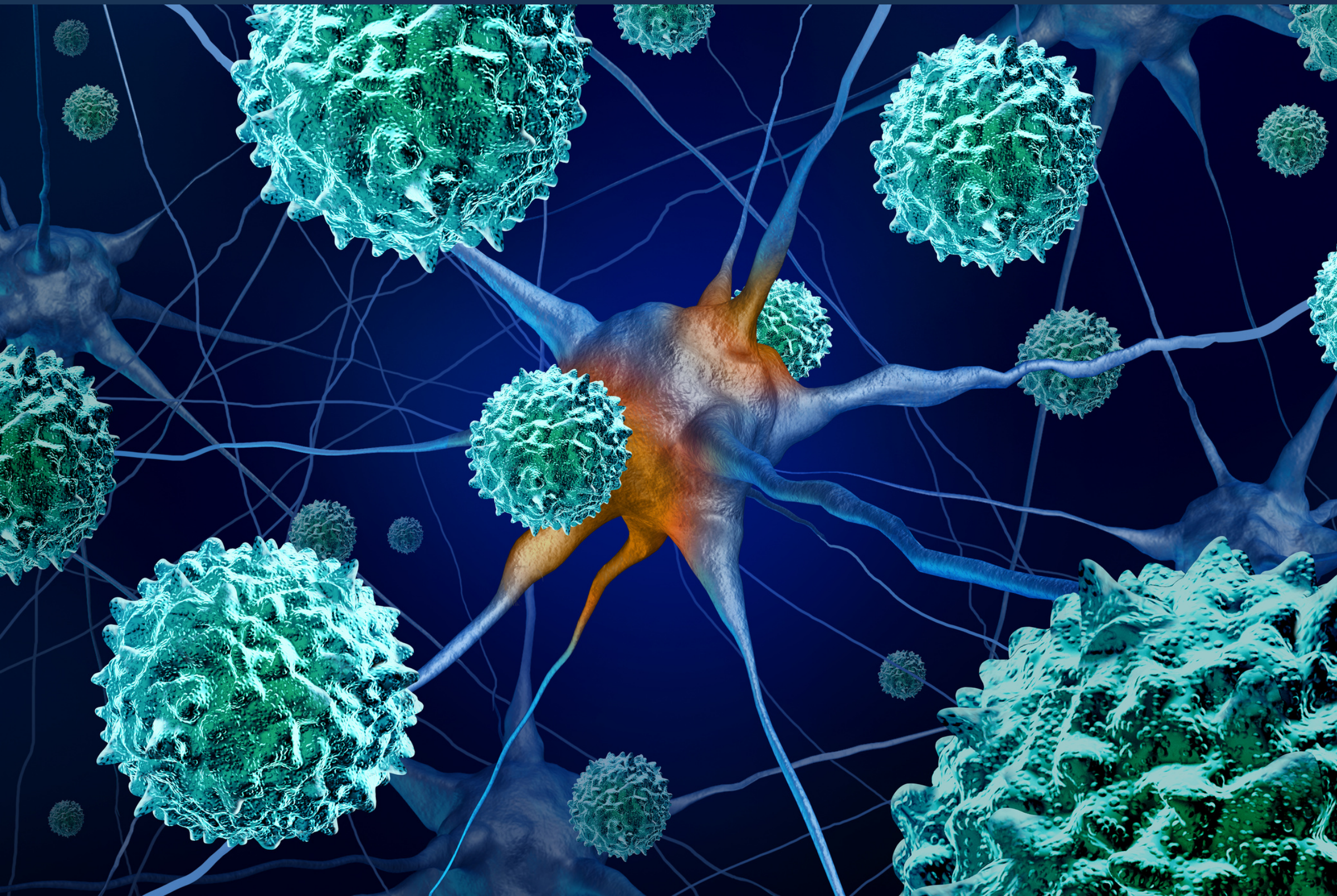




# SOS Safety Solutions

When Safety Matters, SOS Delivers



# INFECTIOUS DISEASES

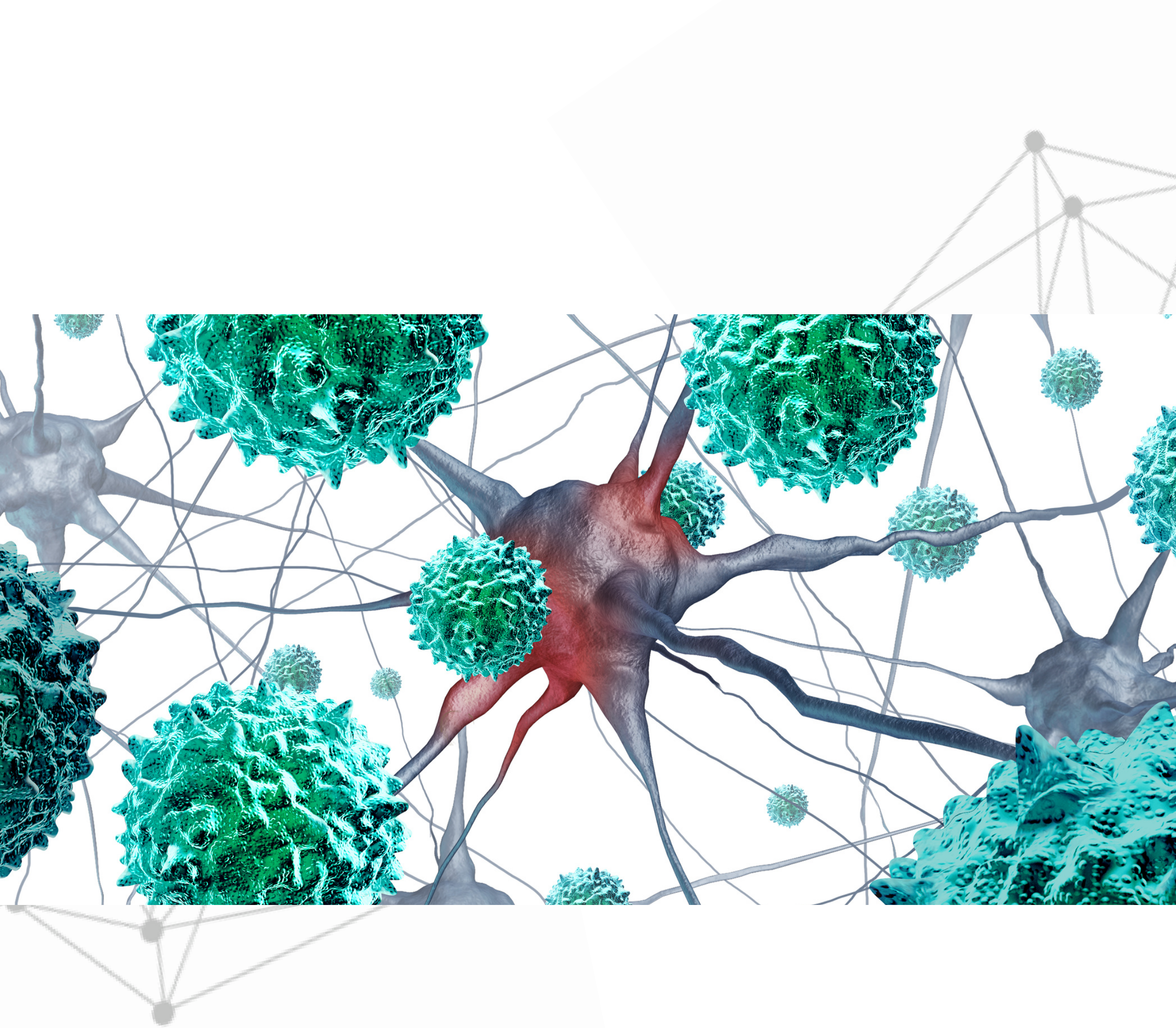
WRITTEN BY MEGAN DISCIASCIO



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# What are Infectious Diseases?



According to Mayo Clinic, infectious diseases are disorders caused by organisms such as bacteria, viruses, fungi, or parasites. Many organisms live in or on our bodies and are normally harmless or even helpful to our bodies functioning properly, but some organisms can be harmful. In the healthcare industry, there is a higher chance of occupational exposure to the more harmful organisms that could cause disease.

There are three primary routes of transmission in U.S. healthcare settings: contact, droplet, and airborne.

## Contact



## Droplet



## Airborne



Contact transmission can be through either direct or indirect contact. Direct contact transmission of an infectious agent is from an infected individual to a susceptible individual through physical contacts, such as skin-to-skin contact. Indirect contact occurs when infectious agents are transferred to an individual through contact with a contaminated surface or item.

The healthcare industry can encompass a variety of workplace settings, including hospitals, nursing care facilities, outpatient clinics (e.g., medical and dental offices, and occupational health clinics), ambulatory care centers, and emergency response settings. The diversity among healthcare workers and their workplaces makes occupational exposure to infectious diseases especially challenging due to varying job positions and the risk of occupational exposure to infectious agents.

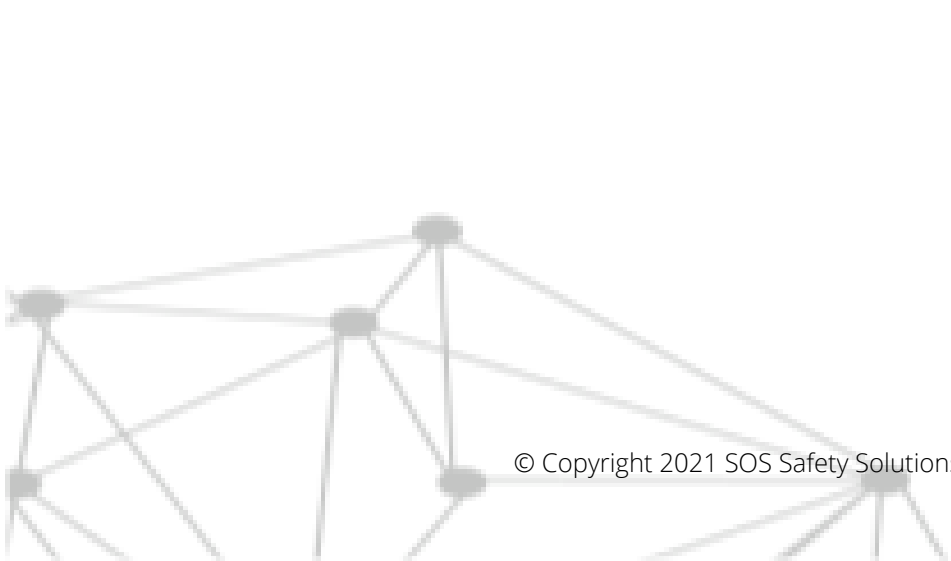
# Bloodborne Pathogens



OSHA defines Bloodborne Pathogens as “infectious microorganisms in human blood that can cause disease in humans.” Needlesticks and sharps-related injuries have the potential to expose healthcare workers to a bloodborne pathogen.

The pathogens that are most concerning when exposed to blood and other bodily fluids are the human immunodeficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV). Healthcare workers should utilize available engineering controls, safe work practices, and personal protective equipment (PPE) to protect themselves from exposure.

Engineering controls that should be implemented include Safer Devices and Sharps Disposal Containers.



# Other Diseases

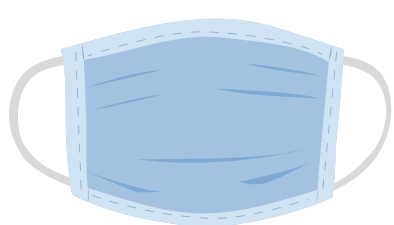


## COVID-19

COVID-19 is a coronavirus that causes respiratory illness in humans. COVID-19 is a new strain of coronavirus first reported in December 2019, according to the Cleveland Clinic. This virus has reached pandemic levels and has spread to all continents, except Antarctica.

COVID-19 is an airborne disease that mostly travels in respiratory droplets from coughs, sneezes, talking, or breathing from an infected person. These droplets can then land in the mouths, noses, or eyes of someone within 6 feet of the infected person.

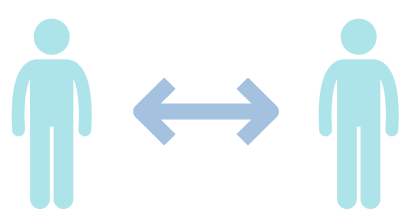
### Wear a Mask



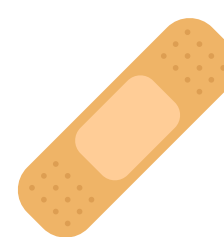
### Avoid Crowds



### Stay 6 Feet Apart



### Get a Vaccine



Slow the spread of the COVID-19 pandemic:

- Wear a mask that covers your nose and mouth to help protect yourself and others.
- Stay 6 feet apart from others who don't live with you.
- Get a COVID-19 vaccine when it is available to you.
- Avoid crowds and poorly ventilated indoor spaces.
- Wash your hands often with soap and water. Use hand sanitizer if soap and water aren't available.

# Other Diseases



## **Influenza (Flu)**

The Flu is a contagious respiratory illness caused by influenza viruses. It can cause mild to severe illness. Serious outcomes of flu infection can result in hospitalization or death. There are two main types of influenza (flu) virus: Types A and B. The influenza A and B viruses that routinely spread in people (human influenza viruses) are responsible for seasonal flu epidemics each year. The best way to prevent flu is by getting vaccinated each year.

## **Methicillin-resistant Staphylococcus aureus (MRSA)**

MRSA is a bacterial infection that is usually spread in healthcare settings via direct contact with an infected wound or from hands that have come in contact with the active infection. The only way to know if an infection is caused by MRSA is to perform a culture of the bacteria. It is crucial to prevent the spread of MRSA through PPE and hand hygiene practices because the bacteria have become resistant to some antibiotics.

## **Tuberculosis (TB)**

TB is a contagious infectious disease caused by a bacterium called *Mycobacterium tuberculosis* and is spread through airborne transmission. Droplets containing the TB bacterium can be released into the air when an infected person coughs, sneezes, talks, or otherwise expels air that can release the droplets.

# How Can Employers Protect Employees?



1) Train employees on how and when to perform Hand Hygiene. Here are some recommendations from the Centers for Disease Control and Prevention (CDC) regarding Hand Hygiene



## **Use an Alcohol-Based Hand Sanitizer**

- Immediately before touching a patient
- Before performing an aseptic task (e.g., placing an indwelling device) or handling invasive medical devices
- Before moving from work on a soiled body site to a clean body site on the same patient
- After touching a patient or the patient's immediate environment

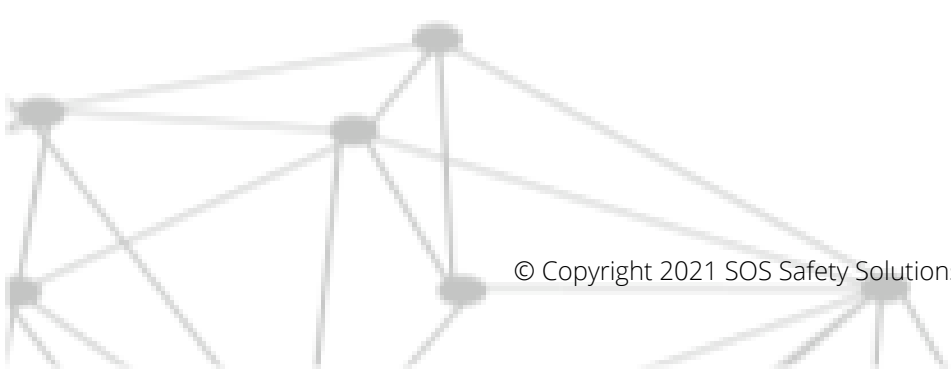
## **Wash with Soap & Water**

- After caring for a person with known or suspected infectious diarrhea
- After known or suspected exposure to spores (e.g. B. anthracis, C difficile outbreaks)
- After contact with blood, body fluids, or contaminated surfaces
- Immediately after glove removal
- When hands are visibly soiled

2) Implement Engineering controls

3) Have safe operating procedures and exposure control plans in place

4) Provide Personal Protective Equipment that is appropriate for the task and potential exposures





# Personal Protective Equipment (PPE)



## Gloves

- Wear gloves, according to Standard Precautions, when it can be reasonably anticipated that contact with blood or other potentially infectious materials, mucous membranes, non-intact skin, potentially contaminated skin, or contaminated equipment could occur.
- Gloves are not a substitute for hand hygiene.
  - If your task requires gloves, perform hand hygiene before donning gloves, before touching the patient or the patient environment.
  - Perform hand hygiene immediately after removing gloves.
- Change gloves and perform hand hygiene during patient care, if
  - gloves become damaged,
  - gloves become visibly soiled with blood or body fluids following a task,
  - moving from work on a soiled body site to a clean body site on the same patient or if another clinical indication for hand hygiene occurs.
- Never wear the same pair of gloves in the care of more than one patient.
- Carefully remove gloves to prevent hand contamination.

## Gowns

- Wear a gown, that is appropriate to the task, to protect skin and prevent soiling or contamination of clothing during procedures and patient-care activities when contact with blood, body fluids, secretions, or excretions is anticipated.
- Wear a gown for direct patient contact if the patient has uncontained secretions or excretions
- Remove gown and perform hand hygiene before leaving the patient's environment
- Do not reuse gowns, even for repeated contacts with the same patient.

## Mouth, nose, & eye protection

- Use PPE to protect the mucous membranes of the eyes, nose, and mouth during procedures and patient-care activities that are likely to generate splashes or sprays of blood, body fluids, secretions, and excretions. Select masks, goggles, face shields, and combinations of each according to the need anticipated by the task performed
- During aerosol-generating procedures (e.g., bronchoscopy, suctioning of the respiratory tract [if not using in-line suction catheters], endotracheal intubation) in patients who are not suspected of being infected with an agent for which respiratory protection is otherwise recommended (e.g., M. tuberculosis, SARS or hemorrhagic fever viruses), wear one of the following: a face shield that fully covers the front and sides of the face, a mask with attached shield, or a mask and goggles (in addition to gloves and gown)



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