

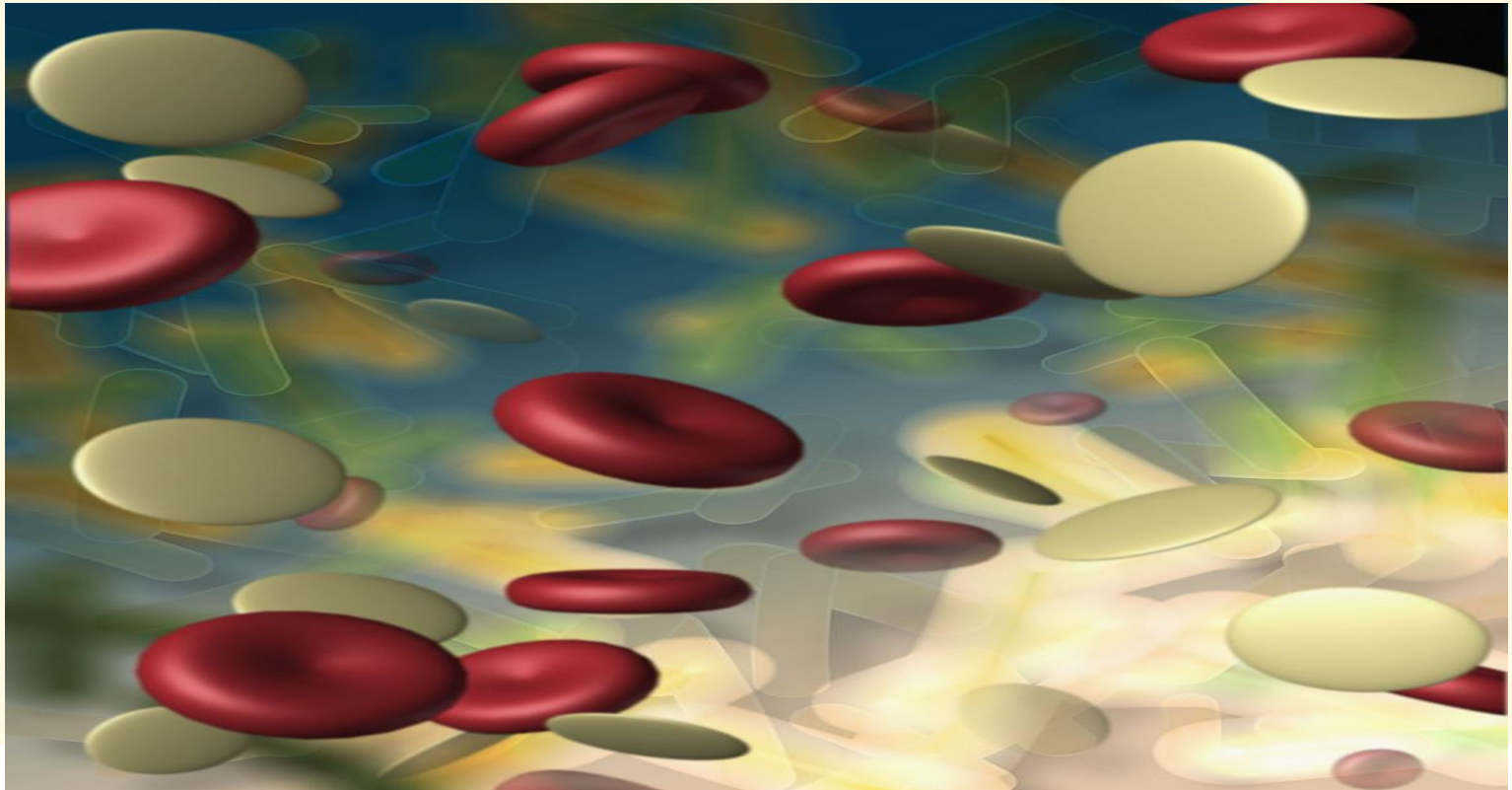


Exposure Control & Universal Precautions

**The Guild for Human Services
521 Virginia Road
Concord, MA 01742**

Exposure Control

We need a plan to control for bloodborne, droplet and airborne pathogen exposure



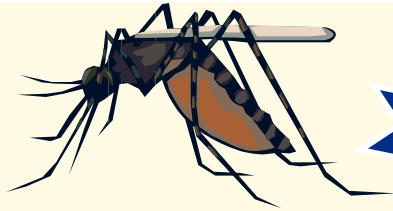
Exposure Control

In this training we will learn about:

- How infections occur
- Bloodborne diseases that cause concern
- How bloodborne pathogens are spread
- How to protect yourself and others from droplet and airborne disease transmission



How Infections Occur



Insect to person



Animal to Person

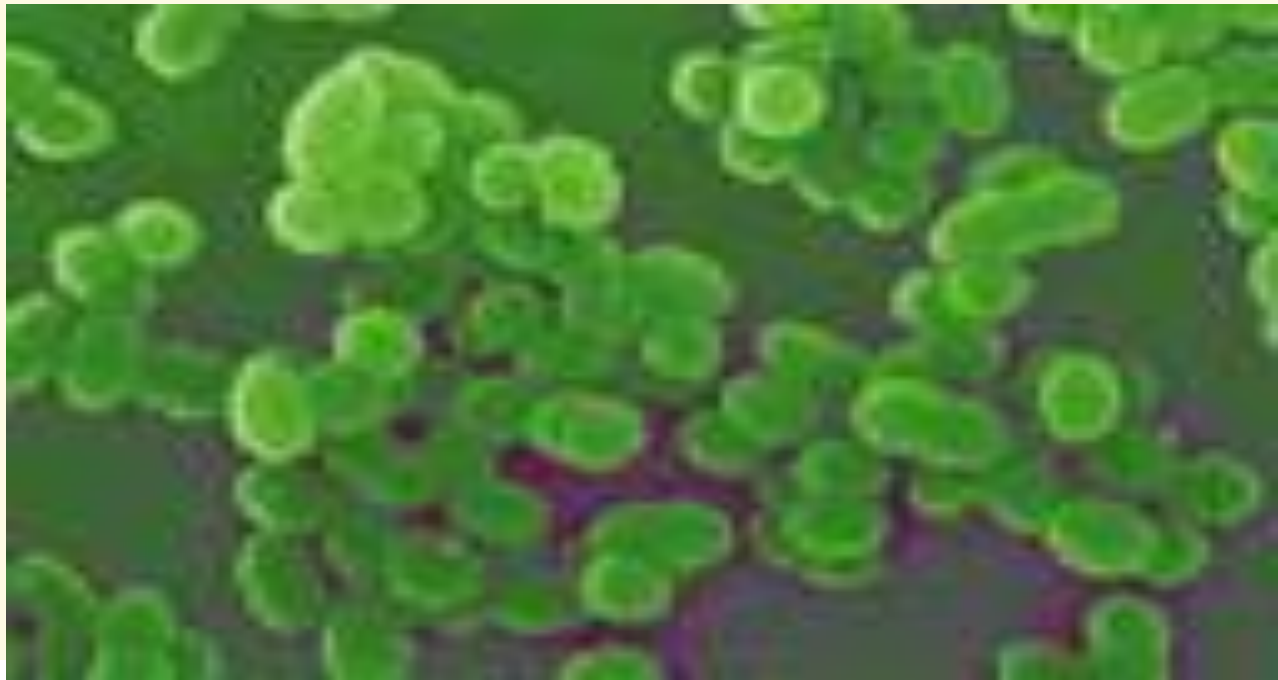


Person to person



What Are These Pathogens?

Bacteria – One celled organisms that do not depend on other organisms for survival. Bacteria can easily live on objects.



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Bacterial infections are relatively easy to treat with antibiotics if caught early.



What Are These Pathogens?

Viruses – Depend on other organisms to live and reproduce. They will eventually die after leaving the host body.

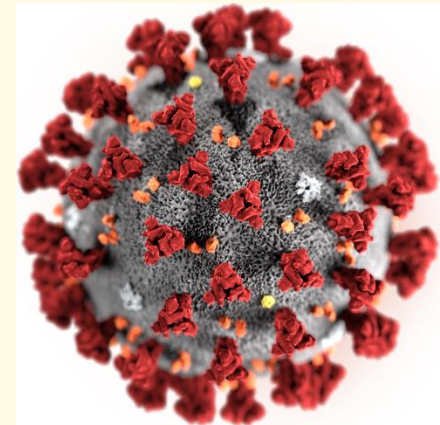


What Are These Pathogens?

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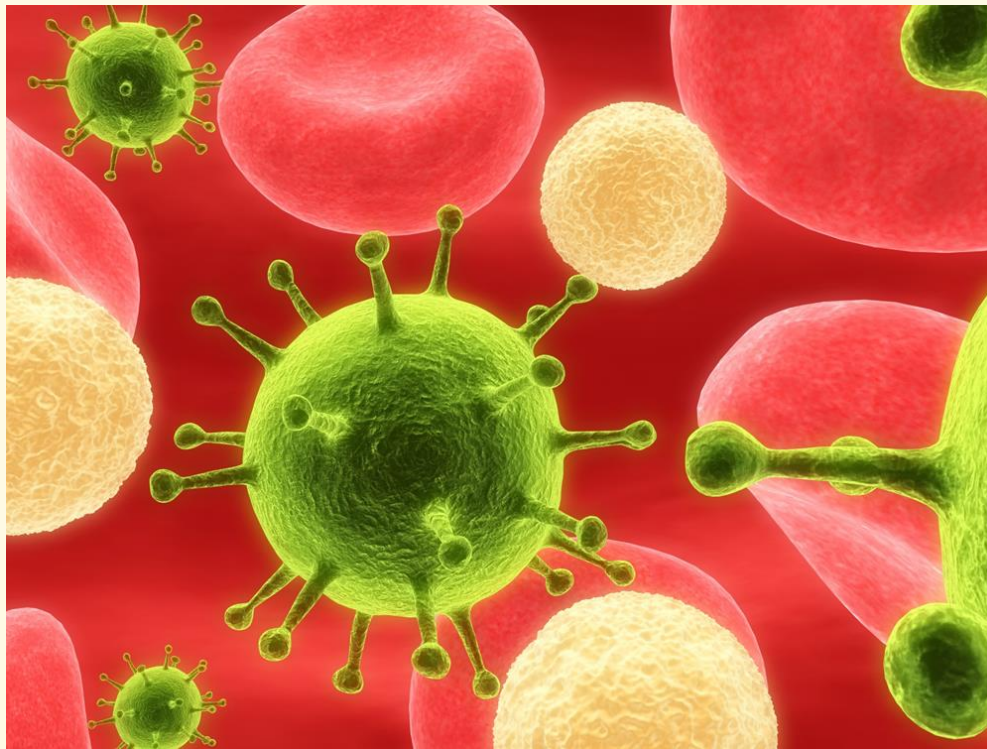


Viruses are difficult to treat with medicine.



Infectious Disease

Infectious Disease is any disease that can be passed from one being to another.



How Do Pathogens Enter Our Bodies?

Normally our skin and mucous membranes of the eyes, nose and mouth do an efficient job of keeping pathogens from entering the body.

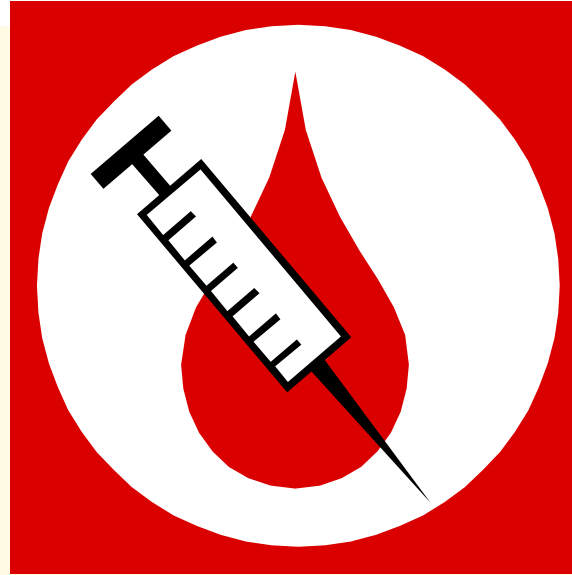


How Do Pathogens Enter Our Bodies?

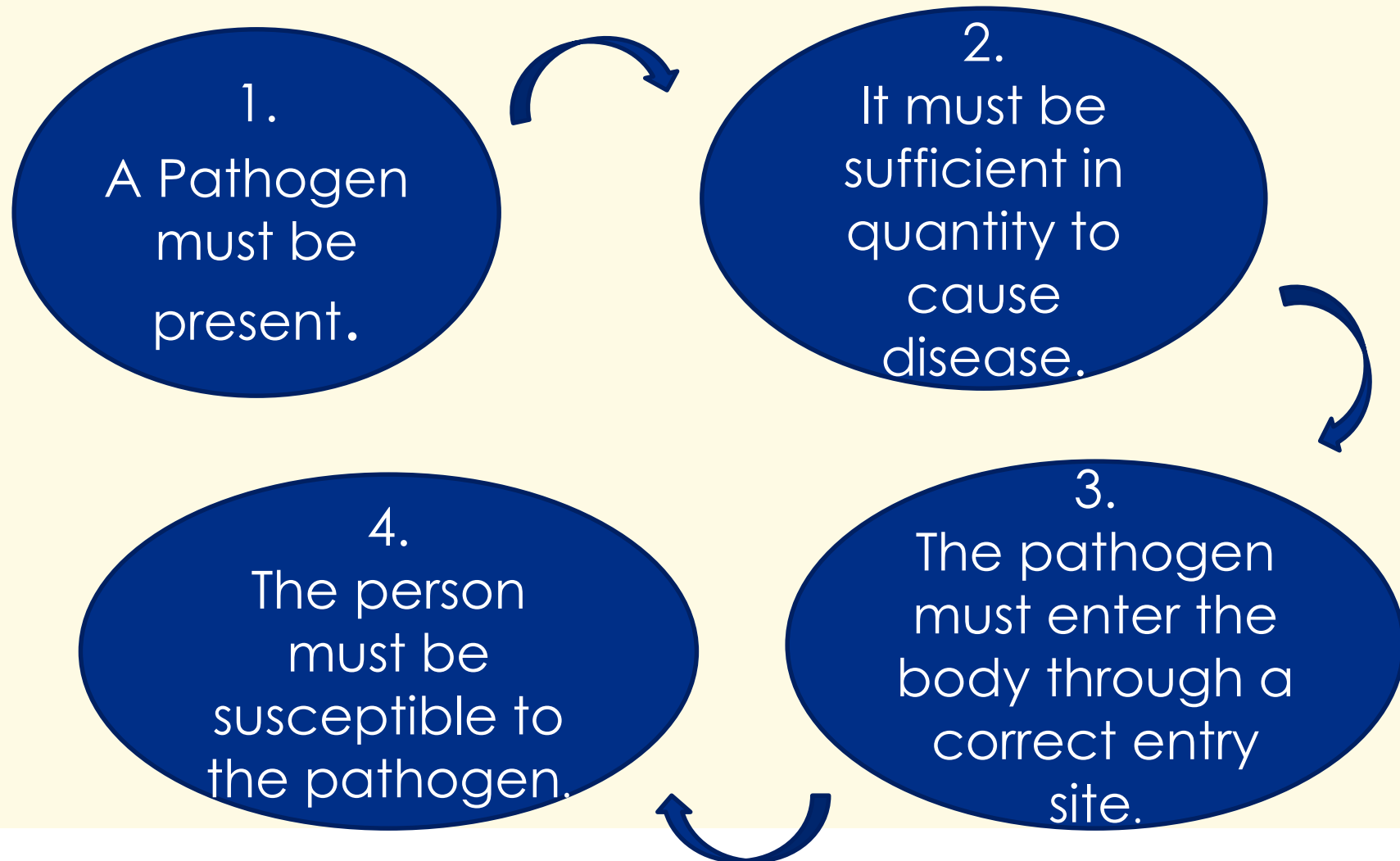
- **However**, if there is a cut, puncture, abrasion or tear in the skin or mucous membranes, these create a potential entry site for pathogens

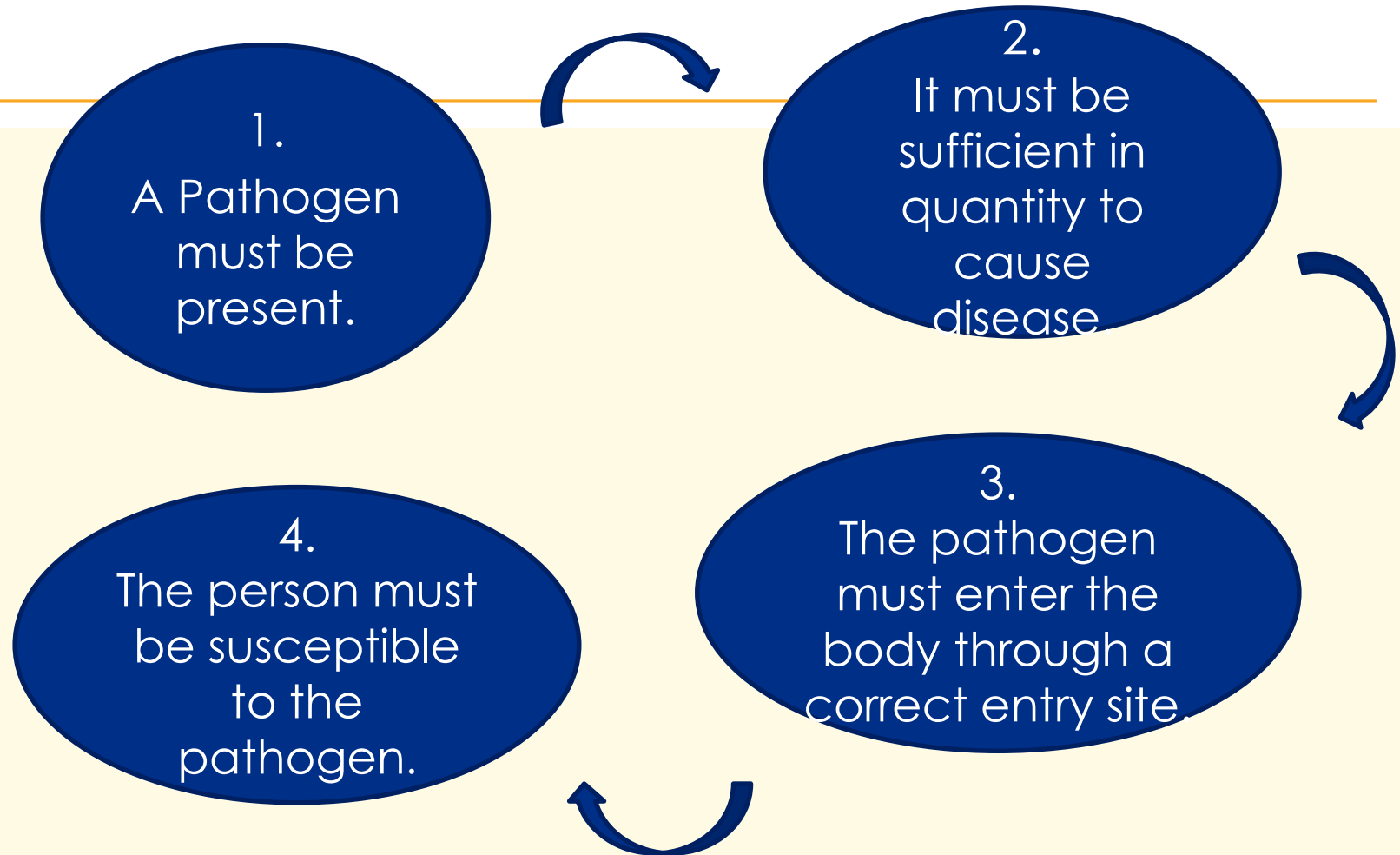


How Do Pathogens Enter Our Bodies?



Conditions Required for Infection to Spread





Infection does not occur if any one of these conditions is not met.



Bloodborne Diseases that Cause Concern

While there are **many bloodborne pathogens**, these are the three that are most likely to be contracted due to work place exposure.

- **Hepatitis B** (a vaccination is available)
- **Hepatitis C**
- **HIV**



Exposure

Direct Contact – Most on the job exposure to bloodborne, droplet or airborne pathogens is through Direct Contact.

Direct Contact Transmission occurs when infected blood or body fluid from one person enters the body of another person through a correct entry site, such as through a break in the skin or a mucous membrane.

- Example: Blood splashing in the eye



Exposure

Indirect Contact

Indirect Contact Transmission occurs when a person touches an object containing the infected blood or body fluid and that infected blood or body fluid enters the other body through a correct entry site.

Example: Touching a doorknob that has infected material on it.



Prevention

The good news is that all of the diseases caused by bloodborne pathogens can be prevented.

There is much that can be done to reduce the likelihood of infection for droplet and airborne pathogens.



Prevention

Preventing the spread of pathogens that cause illness has four components:

- Personal Hygiene
- Personal Protection Equipment
- Engineering Controls
- Work Practice Controls



Prevention

By law, organizations cannot disclose who has bloodborne, droplet or airborne diseases.

- Therefore, you should use these four prevention components **universally** to prevent transmission of the pathogen. This is called:

Universal Precautions



Prevention

Personal Hygiene

Hand Washing

- Wash hands with soap and water
- Scrub vigorously for 20 seconds
- Pay close attention to fingernails and jewelry
- Rinse with warm water
- Dry hands with paper towel



Prevention

Personal Hygiene

Alcohol based hand sanitizers

Use hand sanitizers if you do not have soap and water available

- Use if hands are not visibly soiled
- Rub hands until dry
- At the first opportunity wash your hands with soap and water (20 seconds)



Prevention

Personal Protective Equipment (PPE)

Includes:

Disposable gloves



Prevention

Personal Protective Equipment (PPE)

Includes:

- Disposable gloves
- Gowns or cover-ups



Prevention

Personal Protective Equipment (PPE)

Includes:

- Disposable gloves
- Gowns or cover-ups
- Eyewear



Prevention

Personal Protective Equipment (PPE)

Includes:

- Disposable gloves
- Gowns or cover-ups
- Eyewear
- Masks and Shields



Prevention

Personal Protective Equipment (PPE)

Includes:

- Disposable gloves
- Gowns or cover-ups
- Eyewear
- Masks and Shields
- Breathing Barriers



Prevention

Personal Protective Equipment (PPE)

Some personal protective equipment is available at:

- Each residence
- Nurses Office Note: For some diseases, the Health Services Department may distribute additional PPE for the safety of individuals and staff.
- Reception areas in the school



Prevention

Personal Protective Equipment (PPE)

Deciding not to use personal protective equipment **can put others at risk** for being exposed to disease causing pathogens.



Prevention

Engineering Controls

Engineering controls are those physical devices that isolate or remove a hazard from the work place. These can include:

- ❖ Sharps disposal containers
- ❖ Self Sheathing Needles
- ❖ Bio-hazard bags (Red)
- ❖ Bio-Hazard Disposal site



Prevention

Work Practice Controls

Work Practice Controls alter behavior such as:

- ❖ Identifying circumstances where wearing disposable gloves is required.
- ❖ Changing the way sharp objects, such as needles, are handled can prevent needle stick injuries.
- ❖ Recommending Hepatitis B vaccinations



Exposure Incidents

An exposure incident is when there is contact with blood or potentially infectious material at a correct entry site.



Exposure Incidents

There are three (3) ways by which a pathogen can enter the human body during an **exposure incident**.

1. needle sticks



Exposure Incidents

There are three (3) ways by which a pathogen can enter the human body during an **exposure incident**.

1. **needle sticks**

2. **cut, broken or scraped skin**



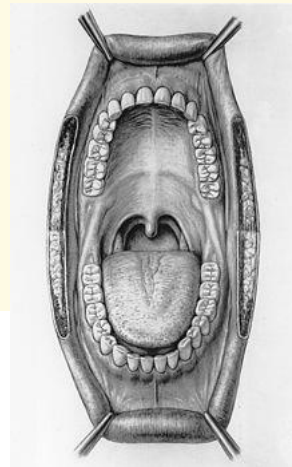
Exposure Incidents

There are three (3) ways by which a pathogen can enter the human body during an **exposure incident**.

1. **needle sticks**

2. **cut, broken or scraped skin**

3. **The mucous membranes of the mouth, nose and eyes**



Exposure Incidents

Report exposure incidents to your supervisor when:

1. A student has been exposed
2. You have been exposed
3. When there is a spill of some other potentially infectious materials.

Be aware that with droplet and airborne exposure you may not be aware of when the exposure occurs SO practice **Universal**

Exposure Incidents

How to provide care when there has been an exposure incident.

- Wash needle stick injuries, cuts or exposed skin with soap and water.
- If splashed in the mouth, nose or eyes with blood or other potentially contagious materials, flush the area with water.
- Irrigate eyes with clean water, saline or sterile irrigants for 20 minutes.



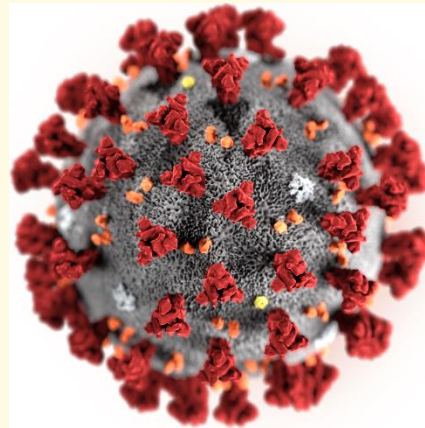
Exposure Incidents

How to clean up a spill of potentially infectious material:

1. Use disposable gloves and other protective equipment.
2. Remove larger objects with tongs, dustpan and broom, or two pieces of cardboard.
3. Clean the area with absorbent materials.
Dispose of materials in a red bio-hazard bag.
4. Saturate the area with disinfectant and let sit for at least 10 minutes.
5. Wipe up the disinfectant with paper towels and place then in the red bio-hazard bag.



COVID-19



Keeping our Community Safe



COVID-19

How to Protect Yourself & Others

We are all part of the solution when it comes to reducing the risk of infection.

Remember, even if you do not get seriously sick, you could pass it on to someone who will get seriously sick.

Older adults and people who have severe underlying medical conditions like heart or lung disease or diabetes seem to be at higher risk for developing serious complications from COVID-19 illness.



COVID-19

How to Protect Yourself & Others

How the Coronavirus Spreads:

Coughing

Sneezing

talking



There is currently no vaccine to prevent coronavirus disease (Covid-19).



COVID-19

How to Protect Yourself & Others

The best way to prevent illness is to avoid being exposed to this virus.

- The virus is thought to spread mainly from person-to-person.
 - Between people who are in close contact with one another (within about 6 feet).
 - Through respiratory droplets produced when an infected person coughs, sneezes or talks.
 - These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.
 - Some recent studies have suggested that COVID-19 may be spread by people who are not showing symptoms.



COVID-19

How to Protect Yourself & Others

The best way to prevent illness is to avoid being exposed to this virus.

Everyone Should:



- Wash your hands often with soap and water for at least 20 seconds especially after you have been in a public place, or after blowing your nose, coughing, or sneezing.
- If soap and water are not readily available, **use a hand sanitizer that contains at least 60% alcohol**. Cover all surfaces of your hands and rub them together until they feel dry.
- **Avoid touching your eyes, nose, and mouth** with unwashed hands.



COVID -19

How to Protect Yourself & Others

The best way to prevent illness is to avoid being exposed to this virus.

Avoid close contact

- **Avoid close contact** with people who are sick
- **Stay home as much as possible**
- Put **distance between yourself and other people.**
 - Remember that some people without symptoms may be able to spread virus.
 - Keeping distance from others is especially important for people who are at higher risk of getting very sick.



COVID-19

How to Protect Yourself & Others

Take steps to protect others

- Stay home if you're sick
- **Except** to get medical care.



COVID -19

How to Protect Yourself & Others

Take steps to protect others



- **Cover your mouth and nose** with a tissue when you cough or sneeze OR use the inside of your elbow.
- **Throw used tissues** in the trash.
- Immediately **wash your hands** with soap and water for at least 20 seconds. If soap and water are not readily available, clean your hands with a hand sanitizer that contains at least 60% alcohol.



COVID -19

How to Protect Yourself & Others



Take steps to protect others

Wear a facemask if you are sick

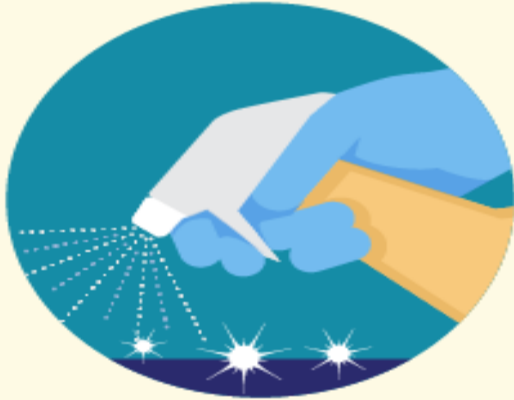
- **If you are sick:** You should wear a facemask when you are around other people (e.g., sharing a room or vehicle) and before you enter a healthcare provider's office. If you are not able to wear a facemask (for example, because it causes trouble breathing), then you should do your best to cover your coughs and sneezes, and people who are caring for you should wear a facemask if they enter your room.
- **If you are NOT sick:** You do not need to wear a surgical facemask unless you are caring for someone who is sick (and they are not able to wear a facemask). In April 2020, the CDC recommended use of cloth face coverings during the COVID-19 pandemic.



COVID-19

How to Protect Yourself & Others

Clean and disinfect



- **Clean AND disinfect frequently touched surfaces daily.** This includes tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, toilets, faucets, and sinks.
- **If surfaces are dirty, clean them:** Use detergent or soap and water prior to disinfection.
- **To disinfect:**
Most common EPA-registered household disinfectants will work. Use disinfectants appropriate for the surface.



Post - Test

