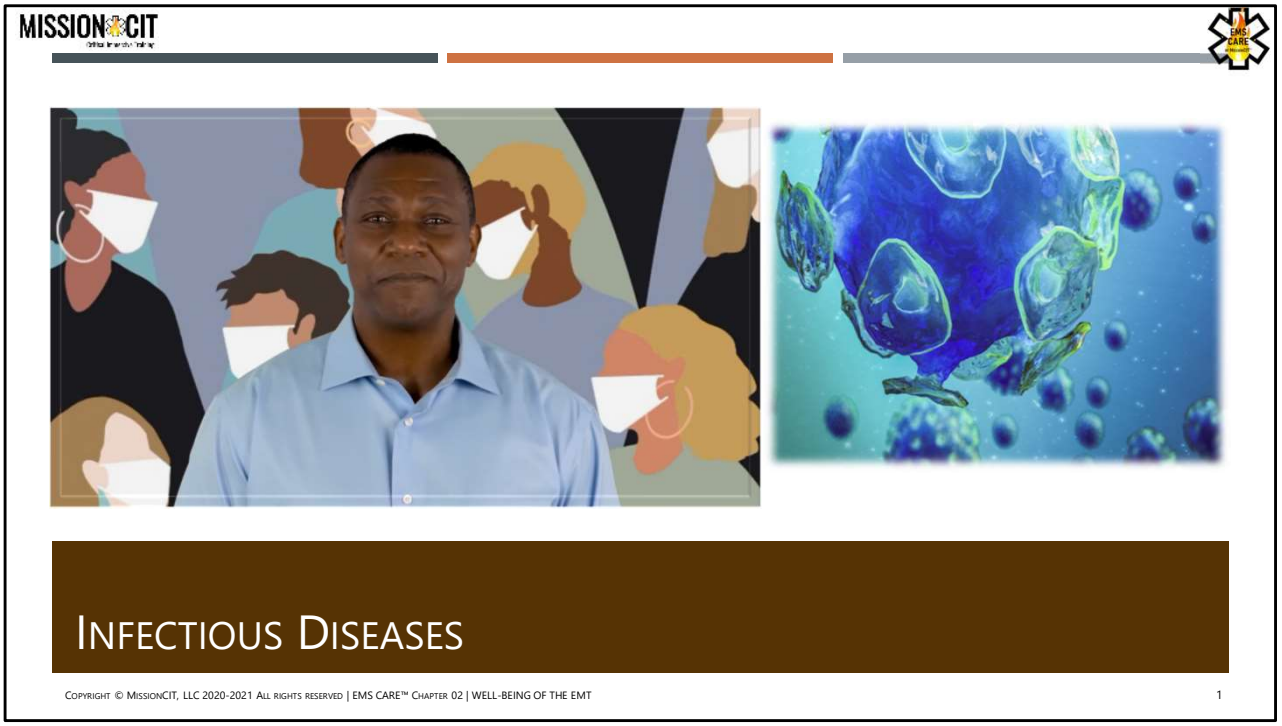
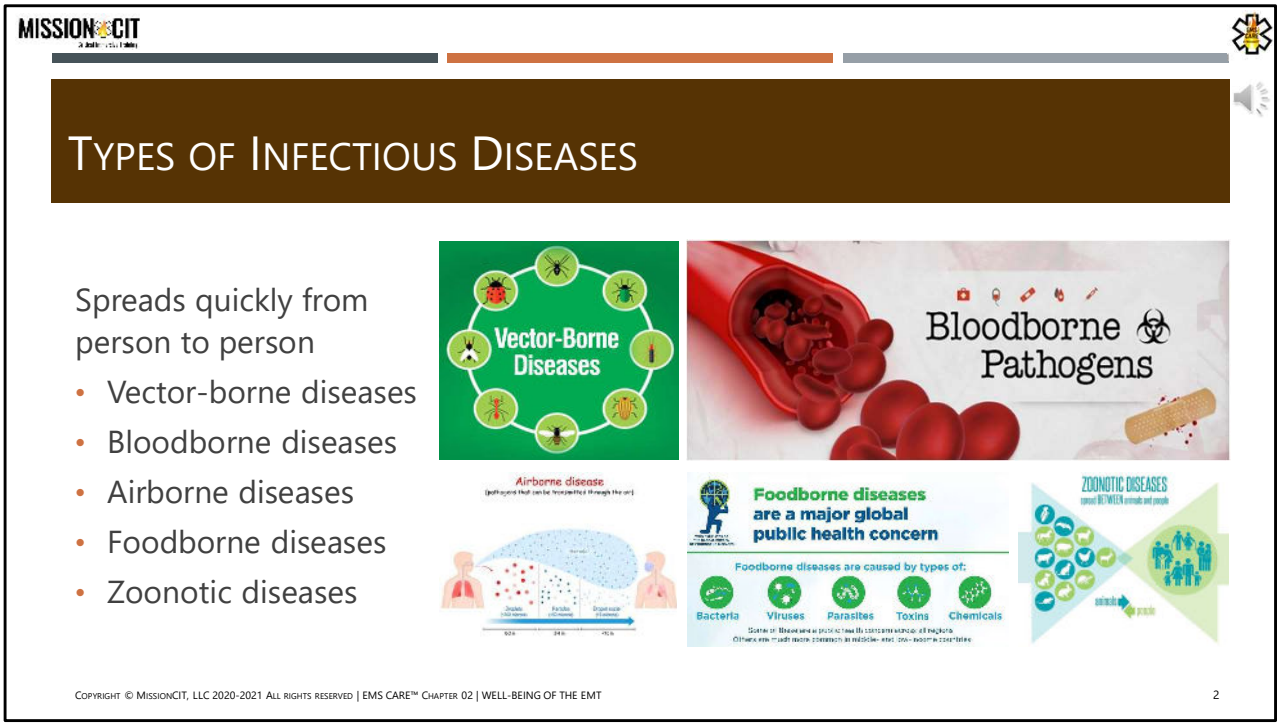


Infectious diseases are one of the leading causes of death worldwide. They are caused by microorganisms such as viruses, bacteria, fungi, or parasites and can spread between individuals. Microorganisms that cause disease are collectively called pathogens.

In this lesson, we discuss various disease types, emerging diseases, and preventing exposure. Good studying.



Infectious diseases spread quickly from one person to another, thereby impacting large groups of the population within a short time.

These diseases can be categorized depending on the mode of transmission. Some of the types of infectious diseases are:

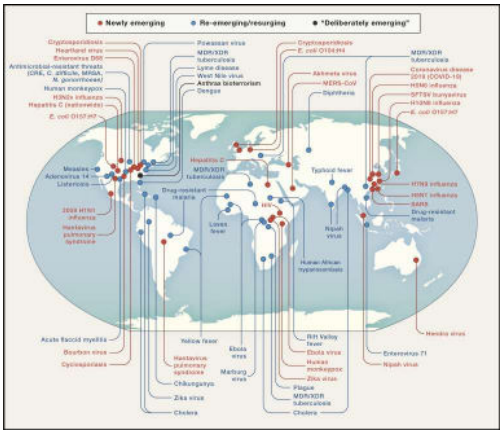
- Vector-borne diseases: These diseases spread through vectors like mosquitoes, fleas, and ticks.
- Bloodborne diseases: The pathogens get transmitted through blood and other body fluids.

- Airborne diseases: The microorganisms spread through the air.
- Foodborne disease: The pathogens infect humans through spoilt or contaminated food.
- Zoonotic diseases: Originate from animals.

The intensity of these diseases depends on the level of exposure and the virality of the pathogen.

Emerging Diseases

- Airborne diseases like COVID-19, SARS and MERS
- VRSA and MRSA
- West Nile and Lyme
- E. coli
- Rabies and Brucellosis
- Stay abreast of regular updates and notifications from CDC and DPH



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Researchers believe that the rate of emerging diseases is on the rise because of climate changes, better adaptations and mutations by pathogens, and the nature of international trade and travel.

Some of the eradicated diseases are also resurfacing for the same reasons, hence, you must be aware of these diseases and the protocols to follow while encountering them. Here are a few examples of emerging diseases:

- Airborne diseases like SARS, MERS, and COVID-19

- VRSA and MRSA
- Vector-borne diseases like West Nile and Lyme
- Food-borne diseases like E. coli
- Zoonotic diseases such as rabies and brucellosis

To know more about emerging diseases and their impact in your community, stay abreast of regular updates and notifications from the CDC, Department of Public Health, and other different government websites such as the National Foundation for Infectious Diseases.



The risk of exposure to infectious diseases is high for EMTs. Knowing the possible ways of transmission can help you reduce exposure and accurately handling situations.

You can get exposed when,

- You are in the same room as that of the patient who is suffering from airborne diseases.
- You come in contact with blood or any other body fluids of the patient.

- The needles used by the patient are not disposed of properly, thereby increasing the chances for needle-stick injuries.
- You’re caring for a patient in a mosquito-infested area.

Here are the 'Five Moments for Hand Hygiene' from the WHO Guidelines on Hand Hygiene in Health Care. Quite simply, it defines the key moments for hand hygiene.

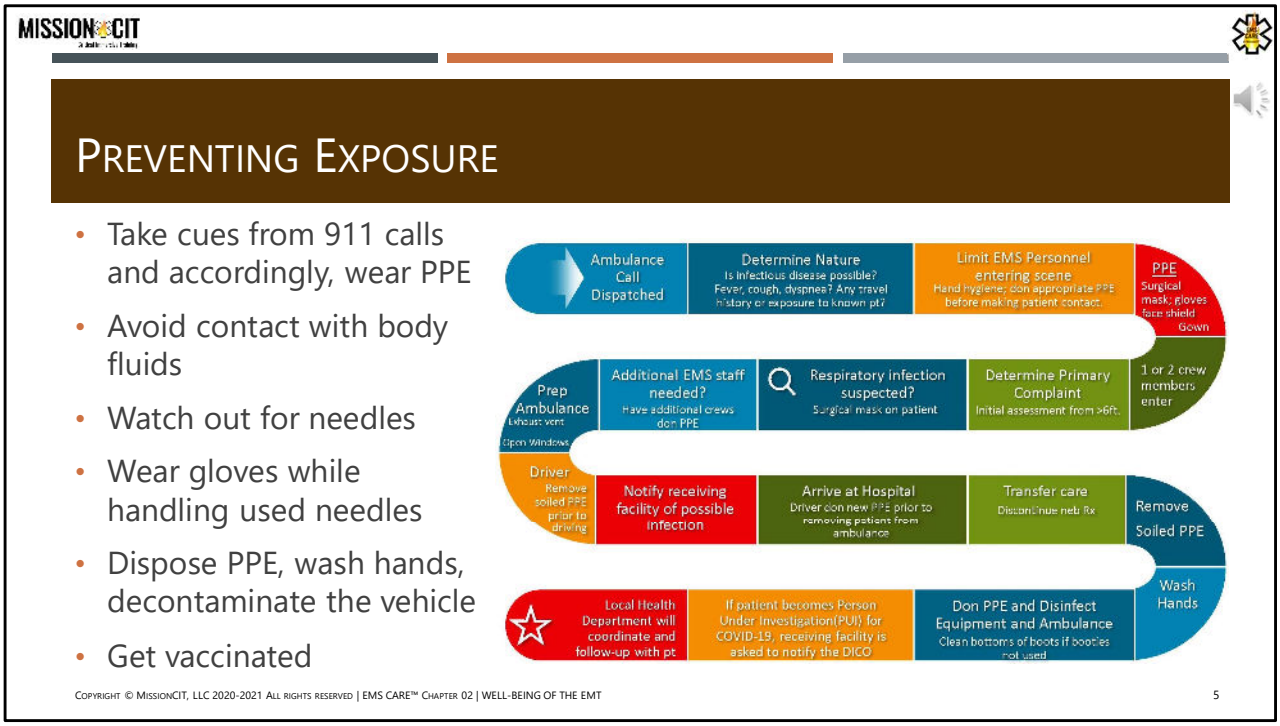
1. Before patient contact:
   Clean your hands before touching a patient when approaching him or her, to protect the patient against harmful germs carried on your hands.
1. Before an aseptic task:
   Clean your hands immediately before any aseptic task, to protect the patient against harmful germs, including the patient’s own germs, entering his or her body.
1. After body fluid exposure risk:
   Clean your hands immediately after an exposure risk to body fluids (and after glove removal), to protect yourself and the health-care environment from harmful patient germs.
1. After patient contact:
   Clean your hands after touching a patient, and his

or her immediate surroundings when leaving, to protect yourself and the health-care environment from harmful patient germs.

1. After contact with patient surroundings:

Clean your hands after touching any object or furniture in the patient's immediate surroundings, when leaving - even without touching the patient, to protect yourself and the health-care environment from harmful patient germs.

Ensure Body substance isolation . Known as BSI in short, this is the process of protecting yourself from the body substances of patience such as saliva, urine, blood, etcetera. You are expected to wear the protective equipment as needed and take all possible precautions to protect yourself from coming into contact with any of the body substances of patients.



Now that you know the different ways by which you can contract an infectious disease, follow the necessary precautions to protect yourself against them.

- First off, take cues from the 911 dispatch calls. If a patient has reported fever or any symptom that points to infectious diseases, wear a PPE before entering the premises.
- Next, avoid coming into contact with any form of body fluid. Be on the lookout for any needles. You should always wear gloves while handling used

needles.

- Once you've handled the patient or transported them, dispose of your PPE safely, wash your hands, and decontaminate the vehicle as well.
- All along, be updated on your vaccines and stay as healthy as possible.

Handling Exposure

- Inform medical control if you suspect exposure
- Isolate yourself if needed
- Initiate treatment
- Be prepared for blood work



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If you think you were exposed to any infectious disease, inform medical control right away, and depending on the nature of the disease, isolate yourself if needed.

Also, initiate the necessary treatment plan, the associated paperwork, and start treatment at once. Be prepared for blood work if needed.

We now come to the end of this lesson, and in the next one, Missah will talk about caring for critically ill patients.