

Workplace Hygiene and Illness Prevention





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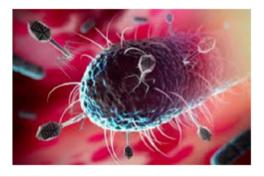
Course Introduction

This course focuses on what employees need to know to stay healthy in the workplace. Topics covered include: workplace hygiene and housekeeping, contagious diseases, and disease prevention. The course discusses how to control the spread of communicable diseases including COVID-19. However, please follow health advisories.

To take this class online for a certificate email johncross.ccm@gmail.com

What is a contagious disease?

- Contagious diseases are caused by pathogens (germs) which live in your body. These are living organisms that survive by using parts of your body and then finding a way to move to other bodies. (Otherwise they would die out when you die).
- The two main types of pathogens are "bacteria" and "viruses".
- Bacteria are single-celled organisms. Not all of them are harmful, In fact, billions of bacteria live in your body and help with such vital functions like digestion, However, in some cases they can cause infections such as a cut leading to gangrene, or some forms of food poisoning.
- Viruses cannot survive by themselves. They are only a protein molecule covered with fat and can only reproduce by taking over the cell of another organism and taking over the energy and DNA of that cell. Then, they create a million copies of themselves, but in the process destroy the cell. So, the copies get spilled out until they find a new host cell. Only a few viruses affect humans, since the virus must match genetically the host organism, But they can only survive by constantly spreading from one body to another.



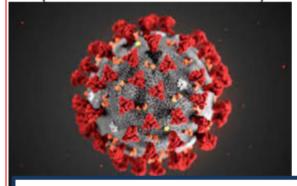
Examples of communicable diseases:

- Common cold (virus affecting nose and throat)
- Influenza (flu virus affecting nose, thriat and sometimes the lungs)
- Coronavirus (covid-19) (SARS-CoV-2 virus)
- Norovirus (virus affecting stomach)
- Measles (virus)
- Strep Throat (bacteria affecting throat)

E-Coli (bacteria that can cause diarrhea)

Communicable vs Noncommunicable diseases:

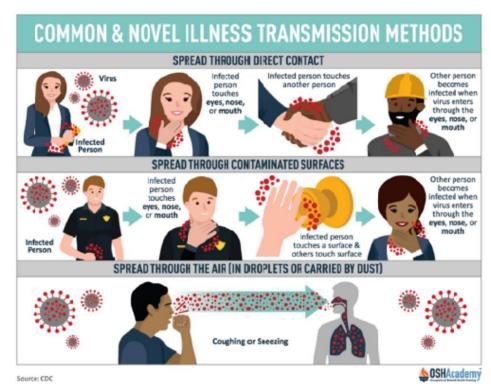
Communicable diseases are caused by germs that are passed from one person to another, either directly (through contact) or indirectly. Non-communicable diseases cannot be transmitted from person to person but are caused by genetic, environmental, or behavioral factors, such as heart disease, cancer, or diabetes.



For more information use reputable websites only: www.who.int (World Health Organization) www.cdc.gov (Center for Disease Control, USA)

Modes of transmission

Flus, colds, Covid-19 and some bacteriological infections are caused by germs that attack the cells lining the inside of the throat. As they reproduce they invade more cells until the throat is irritated. By this time normally the body reacts by coughing or sneezing to clear the throat of the dead cells. Airborne transmission: A cough or sneeze can throw germs up to 6 meters which float in droplets and are inhaled by someone else.



Direct transmission: If the infected person coughs on their hand, or touches their mouth or nose, they can also pass on the disease when they shake the hand of someone else who then touches their own mouth or nose or eyes.

Indirect transmission: Or, they can touch a surface like a counter or button. The next person who touches it may then pick up the germs and infect themselves the same way.

Vehicle transmission: If someone coughs on or touches your food or utensils it will be carried to your mouth. E-coli may also be spread this way.

Vector transmission: Some diseases like malaria are transported by a third organism such as a mosquito or flea which bite the diseased person and then bite someone else, passing on the germs.

| SYMPTOMS | SEASONAL Allergies | COMMON COLD | FLU | COVID-19** |
|------------------------|--|---|---|-------------------------------------|
| FEVER | Rare | Rare, Temp. <100 F | Common, Temp. 100 F & Above, Lasting 3-4 Days | Common, Temp. 100.4 8 & Above |
| headache | Sametimes | Rare | Prominent | Sometimes |
| GENERAL ACHES, PAINS | Rare | Uncommon Or Mild | Common, Often Severe | Sometimes |
| FATIGUE, WEAKNESS | Sametimes | Very Mild & Brief | Common, Lasts 2-3 Weeks | Sometimes |
| RUNNY OR STUFFY NDSE | Common, Usually Watery Clear Mucus | Common, Usually Thick Yellow/ Green Mucus | Sometimes | Rare |
| SNEEZING | Common | Commen | ommon Rare | |
| ITCHY, Watery Eyes | Common | Rare | No | No |
| SORE THROAT | Sametimes | Common Common | | Sometimes |
| DRY COUGH | Sametimes | Common, Mild To Moderate | Mild To Common, | |
| SHORTNESS OF BREATH | Sametimes | Rare | Rare | Common In Severe Cases |
| DIARRHEA | No | No | Somettimes* | Rare |

EVEN SOMEONE WITHOUT SYMPTOMS MAY SPREAD A DISEASE!

Symptoms

- Symptoms are usually your body's reaction to a disease
- Often you can tell what disease you have by the symptoms, but in some cases a test is necessary
- If symptoms persist or are severe, get a doctor to check the symptoms or run a test.
- You should never self-medicate

Severity & Treatment Options

The severity of infectious diseases depends on many factors, including the disease itself, possible secondary infections that may occur, and the health of the patient. Treatment options also vary. In some cases there is a "cure". In other cases the symptoms can only be managed until the patient either recovers or dies.

| Disease | Cause | Severity | Death rate | Treatment |
|-----------------|----------|----------|------------|---|
| Common Cold | Virus | Mild | Almost | No cure: Just manage symptoms |
| | | | none | |
| Influenza (Flu) | Virus | Mild to | 1 in a | Partial cure (Vaccine, anti-virals), |
| | | severe | thousand | manage symptoms. |
| Bacteriological | Bacteria | Mild to | Minimal if | Antibiotics |
| infections | | severe | treated | |
| Covid-19 | Virus | Mild to | 30 in a | No cure: Manage symptoms & isolate. |
| | | severe | thousand | Severe cases may be on a ventilator for |
| | | | | months. |

Risk Assessment: Who to protect and why?

Why is society so concerned about COVID-19 when many more people a year die from the flu? In OSHA risk is defined as the likelihood of an event happening times the severity of the event. In this case the likelihood is of transmitting the disease and the severity is the worst case scenario: the percentage of infected people who will die.

LIKELIHOOD: For example, the average person with the flu will transmit it to 1.3 other people. This means it will spread slowly. However, the average person with Covid-19 will spread it to 2.5 other people, about twice as many. So Covid-19 is twice as likely to spread to others.

SEVERITY: In terms of severity the difference is even greater: While only 1 out of 1000 people with the flu will die, about 30 out of 1000 people (3%) of those who contract Covid-19 may die, and while the elderly are more affected, many of those people will be younger.

In the risk matrix on the right we have estimated the risk for each of 3 diseases. Green means "safe", yellow means "caution". Red means "Stop Work."

- The common cold has a medium transmission rate but rarely causes more than a few days off work, so it is in the "safe" zone.
- The Flu has a medium transmission rate, but usually it results in hospitalization at worst, so it is in the "caution" zone.
- However, the Coronavirus has relatively high transmission rates and a high death rate.
 Thus, many countries have literally stopped most work in reaction.

| | High (death) | | | CORONA VIRUS | |
|----------|----------------------|-------------------|----------------|-----------------|--|
| Severity | Medium (Hospital) | | FLU | | |
| | Low (Days off) | | Common Cold | | |
| | | Low | Medium | High | |
| | | Transmission Rate | | | |

Who is at risk?

Not everyone is equally at risk. People who interact with many other people and people more likely to deal with the infected are at much higher risk.

Thus a back-office worker or manager will generally be at a lower risk than receptionists, security guards or health clinic staff.

Prevention: Controlling the risk of infectious diseases

Because of the danger of COVID-19, many countries have literally stopped work to reduce transmission rates. However, we cannot do this forever. People will have to go back to work, but we need to reduce the risks associated with this disease.

We cannot eliminate it, but we can reduce it!

It may take years to develop a cure or a vaccine, but in the meantime there are things we can do to reduce transmission rates in the workplace:

Hygiene: In the workplace (and at home) we can reduce substantially the exposure to infection by

reduce substantially the exposure to infection by using proper hygiene. In fact, hygiene has probably done more to reduce disease than medicine has over the last 100 years.

Isolation: We can also reduce our exposure to infected persons through workplace design, changed practices, and heightened health screening.

PPE: We will have to become used to wearing PPE, especially when in roles where we are meeting large numbers of people.



Scrub'em!

Housekeeping

Sanitizing the workplace is a vital task. When cleaning and sanitizing follow these rules:

- Identify high traffic areas and items that will be touched often and sanitize them frequently. Focus particularly on areas such as waiting rooms, break rooms, lunch areas, high traffic corridors and doorways, handles, counters, elevator controls, switches, keypads, cell phones, etc.
- Use disposable gloves or sanitize reusable gloves after every use.
- 3. Germs hide in dirt. Clean dirt off before sanitizing.
- For disinfection use:
 - EPA approved disinfectants that are effective against viruses as well as bacteria.
 - b. Alcohol solutions of at least 70%
 - c. Use a solution of 5 tablespoons of bleach for 1 liter of water. This can be sprayed on surfaces and wiped off. Make a new batch daily.
- 5. Never combine different cleaning products
- 6. Always have the area well ventilated while disinfecting.

USE OF PPE

- Use masks/gloves ANYTIME the people you are interacting with people may be infected.
- Discard or sterilize masks and gloves after every use.
- Wash hands after removing masks or gloves.

Hand Hygiene

Cleaning your hands properly is probably the best thing you can do to protect yourself from any infectious disease. Follow these five steps every time

- Use clean running water to wet your hands and then apply soap.
- Lather the soap and rub over all hand surfaces, between fingers and under nails vigorously.
- Scrub all parts of your hands for a total of 20 seconds. In this time the soap will destroy any viruses. You can time it by singing the "Happy Birthday" song twice.
- Rinse your hands under clean, running water. Do not use standing water in the sink, you will recontaminate them.
- 5. Dry your hands completely with a paper towel and discard.
- Use a clean paper towel to open the door, turn off faucets, etc.

Change workplace routines

- Screen all workers / visitors. Require use of sanitation/wash stations at all entrances
- Place glass / plastic or social distance barriers to protect public service staff.
- · Provide masks and gloves for all staff.
- Social distancing: separate work stations by at least 2 meters
- Use virtual meetings instead of Face to face meetings wherever possible
- Expand work at home options.
- Institute zero-symptom workplaces: anyone with symptoms should work from home.
- Incorporate AGE and HEALTH of workers into Risk Assessment.