

**OBJECTIVES:**

- \*Concepts with infection control
- \*How germs spread
- \*Hand hygiene
- \*Bloodborne pathogens

*In-Home Aides Partners in Quality Care* is a monthly newsletter. © Copyright AHHC 2025 - May be reproduced for In-Home Aides. Kathie Smith, BSN, RN, Sr. VP of Home Care and State Relations, AHHC of NC and SCHCA; Author

**References:**

[https://info.ncdhhs.gov/dhsr/hcpr/curriculum/pdf/36Module%20%20Infection%20Control%20Script\\_FINAL.pdf](https://info.ncdhhs.gov/dhsr/hcpr/curriculum/pdf/36Module%20%20Infection%20Control%20Script_FINAL.pdf)

<https://www.cdc.gov/clean-hands/about/index.html>

<https://medlineplus.gov/germsandhygiene.html>

<https://www.fsis.usda.gov/food-safety/safe-food-handling-and-preparation/food-safety-basics/steps-keep-food-safe>

**INFECTION CONTROL**

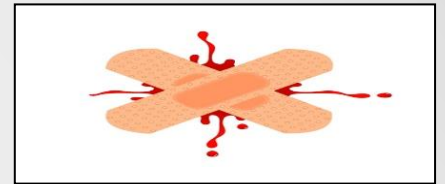
This time of year, you hear about the spread of many sicknesses. A key word is spreading. Whether it be respiratory illnesses such as influenza (flu), COVID-19, and respiratory syncytial virus (RSV) or Norovirus which is the leading cause of vomiting and diarrhea, and foodborne illness in the United States, along with other types of illnesses, we all have a part to play in preventing the spread of these illnesses. To have an infection, there must be a germ that can cause an infection. This germ is called the infectious agent. Infection prevention and control principles include knowing how germs are spread, hand hygiene including handwashing and alcohol-based hand rubs, infection precautions, and the appropriate use of personal protective equipment as needed. Viruses cause colds and the flu, and these viruses can be all around us, in the air we breathe, and on objects we touch. These viruses can be easily transferred as we share the air and touch many of the same objects such as doorknobs, pencils, light switches, and faucets. Germs can be transferred by people who do not seem to be sick themselves. Germs can be expelled into the air by sneezing and coughing. Covering one's nose and mouth when sneezing or coughing can prevent germs from being expelled into the air. Taking steps to prevent the spread of respiratory viruses when you are sick is a core prevention strategy to lower risk from respiratory viruses. Core prevention strategies are important steps you can take to protect yourself and others from respiratory viruses. The chain of infection is the foundation for spreading and preventing an infection. For an infection to occur and spread, each of the six links of the chain must be present. By breaking any link in the chain, a new infection can be prevented. The chart below has information on the links in the chain of an infection.

Reservoir	The infectious agent (germ) must have a place to live or hide. This hideout is called a reservoir. The main types of germs are bacteria, viruses, fungi, and parasites. Infectious diseases are diseases that are caused by germs.	Reservoirs are animals, insects, humans, objects, surfaces, equipment, or anything in the environment including food, water, and even the air.
Portal of Exit	The germ needs a way to leave its home or hideout. This is called a portal of exit, or way to escape from the reservoir.	Examples of how germs exit the human body are through blood from a wound, semen and vaginal secretions from the reproductive tract and genitalia, tears from tear ducts, urine, feces, mucous discharge from the respiratory tract, drainage from open wounds and across the mother's placenta to the fetus.



**INFECTION CONTROL****Chain of Infection Continued:**

Mode of Transmission	Once the germ exits its hideout (reservoir), it must find a way to move to its next victim. This is called the mode of transmission. There are many routes for germs to be transmitted to another. The most common and frequent modes of transmission are direct contact, indirect contact, and droplet contact. Direct or physical contact occurs when the infected person transfers the germ causing the infection to another. Indirect contact includes the spread of infection through eating or drinking contaminated foods, water, or beverages, touching contaminated care products and personal care equipment, utensils, pets, equipment or feces, or any other inanimate object. Droplet contact can happen when an infected person coughs, sneezes, or talks within three feet of another.	Germs can also be spread through contaminated blood as well as through the air. Infections can spread through the air by a person breathing air where germs have been suspended. Insects such as ticks, fleas, or mosquitoes carry germs and pass them on when they bite someone.
Portal of Entry	Once a germ leaves its hideout and finds a way to travel, a portal of entry is necessary. Germs can enter the body through breaks in the skin, through eyes, nose, or mouth, through the digestive tract, through the urinary and reproductive tracts, the respiratory system, and the circulatory system.	Points of exit and entry are the same.
Susceptible Host	If the host's defenses are strong, it may stop the germ's invasion. If not, the host becomes susceptible to the infection, unable to fight off the germs, and the germs enter the body.	The chain of infection now has the potential to continue to spread since the germ has found a new reservoir.



Bloodborne pathogens, such as HIV and Hepatitis B, C, and D, are a classification of microorganisms that cause disease. Bloodborne pathogens are found in blood, blood products that are given in the hospital, semen, cerebrospinal fluid (fluid in the spine), synovial fluid (fluid in the joints), pericardial fluid (fluid around the heart), amniotic fluid (fluid around the baby during pregnancy), and vaginal discharge. Bloodborne pathogens may be found in other fluids if contaminated by infected blood. These pathogens may be transmitted by contact with blood, sexual contact, sharing needles/needle sticks, and mother to fetus during pregnancy or delivery. Employers should have an occupational exposure plan in place for all employees. An occupational exposure includes needle sticks, skin exposure, and mucous membrane exposure (i.e. mouth, nose, eyelids). The occupational exposure plan may consist of a Hepatitis B vaccine program, policies for reporting, evaluating, and handling exposures, and documentation procedures, including employee review of the plan. *Know your agency's occupational exposure plan! It is important to report any occupational exposure immediately.*

Safe steps in food handling, cooking, and storage are essential in preventing foodborne illness. You can't see, smell, or taste harmful bacteria that may cause illness. Link to the USDA to learn more:

<https://www.fsis.usda.gov/food-safety/safe-food-handling-and-preparation/food-safety-basics/steps-keep-food-safe>

## INFECTION CONTROL

Many diseases and conditions are spread by not washing hands with soap and clean, running water. Handwashing with soap is one of the best ways to stay healthy. If soap and water are not readily available, use a hand sanitizer with at least 60% alcohol to clean your hands. Soap and water work to remove all types of germs from hands, while sanitizer acts by killing *certain* germs on the skin. Sanitizers do not get rid of all types of germs. Hand sanitizers may not be as effective when hands are visibly dirty or greasy. Hand sanitizers might not remove harmful chemicals, such as pesticides, and heavy metals like lead. Soap and water are more effective than hand sanitizers at removing certain kinds of germs like norovirus, Cryptosporidium, and Clostridioides difficile (C diff.), as well as chemicals. According to the CDC, the best way to prevent norovirus year-round is by washing your hands well with soap and water, especially after using the bathroom and before eating. You can help protect yourself and others from germs:

- When you have to cough or sneeze, cover your mouth and nose with a tissue or use the inside of your elbow
- Wash your hands well and often. You should scrub them for at least 20 seconds. It is important to do this when you are most likely to get and spread germs:
  - Before, during, and after preparing food
  - Before eating food
  - Before and after caring for someone at home who is sick with vomiting or diarrhea
  - Before and after treating a cut or wound
  - After using the toilet
  - After changing diapers or cleaning up a child who has used the toilet
  - After blowing your nose, coughing, or sneezing
  - After touching an animal, animal feed, or animal waste
  - After handling pet food or pet treats
  - After touching garbage
- ✓ *Always wear gloves if you may come into contact with blood or any bodily fluids.*
- Using hand sanitizer:
  1. **Apply** the gel product to the palm of one hand (read the label to learn the correct amount).
  2. **Cover** all surfaces of hands.
  3. **Rub** your hands and fingers together until they are dry. This should take around 20 seconds.



To prevent the spread of infection, you should regularly clean and disinfect surfaces and objects that are touched often. For example, in a person's house, this would include countertops, doorknobs, faucet and toilet handles, light switches, remotes, and toys. Cleaning removes dirt, dust, crumbs, and germs from surfaces or objects. Disinfecting uses chemicals (disinfectants) to kill germs on surfaces and objects. Some common disinfectants are bleach and alcohol solutions. Read the labels and follow the instructions for use.

COVID-19 (coronavirus disease 2019) is a disease caused by a virus named SARS-CoV-2. It can be very contagious and spreads quickly. COVID-19 most often causes respiratory symptoms that can feel much like a cold, the flu, or pneumonia. Most people with COVID-19 have mild symptoms, but some people become severely ill. COVID-19 spreads when an infected person breathes out droplets and very small particles that contain the virus. Other people can breathe in these droplets and particles, or these droplets and particles can land on their eyes, nose, or mouth. In some circumstances, these droplets may contaminate surfaces they touch. Anyone infected with COVID-19 can spread it, even if they do not have symptoms. Follow your agency policies for reporting symptoms of COVID-19 that you, or a client, or a client's personal caregivers experience to ensure appropriate screening, testing, treatment, and the use of appropriate personal protective equipment such as gloves and masks. Possible symptoms include: fever or chills, cough, shortness of breath or difficulty breathing, sore throat, congestion or runny nose, new loss of taste or smell, fatigue, muscle or body aches, headache, nausea or vomiting, diarrhea.