Germs are a part of everyday life and are found in our air, soil, water, and in and on our bodies. Some germs are helpful, others are harmful. Many germs live in and on our bodies without causing harm and some even help us to stay healthy. Only a small portion of germs are known to cause infection. An infection occurs when germs enter the body, increase in number, and cause a reaction of the body.

More than 2 million infections start every year in a hospital, nursing home, or another healthcare setting. 100,000 people die each year as a result of getting an infection in a hospital, nursing home, or another healthcare setting.

The leading cause of death among residents in a nursing home is infection. Infection is also the most frequent reason for a person to be moved from the nursing home to a hospital for care. Infection control and the prevention of infections must be a regular part of everything the In-home aide does.

Handwashing is the single most important infection control activity, not only for you, but also encourage your clients and their personal caregivers to practice good handwashing.

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.* Infection control practices such as hand washing, wearing gloves, cleaning equipment, and using masks, when used properly, will break a link in the chain and potentially stop the spread of infection.

**The Chain of Infection:**
- **Infectious Agent**
- **Reservoir**
- **Portal of Exit**
- **Mode of Transmission**
- **Portal of Entry**
- **Susceptible Host**

**Three things are necessary for an infection to occur:**

- **Source:** Places where infectious agents (germs) live (e.g., sinks, surfaces, human skin). A Source is an infectious agent or germ and refers to a virus, bacteria, or other microbe.
- **Susceptible Person** (someone at risk of infection) with a way for germs to enter the body.
- **Transmission:** a way germs are moved to the susceptible person.
A susceptible person is someone who is not vaccinated or otherwise immune, or a person with a weakened immune system who has a way for the germs to enter the body. For an infection to occur, germs must enter a susceptible person’s body and invade tissues, multiply, and cause a reaction. People with an underlying medical condition such as diabetes, cancer, and organ transplantation are at increased risk for infection because often these illnesses decrease the immune system’s ability to fight infection. For example, what is just a cold to most people can be deadly to the older, medically frail adult. Certain medications used to treat medical conditions, such as antibiotics, steroids, and certain cancer fighting medications increase the risk of some types of infections. Lifesaving medical treatments and procedures used in healthcare such as urinary catheters, tubes, and surgery increase the risk of infection by providing additional ways that germs can enter the body. Recognizing the factors that increase patients’ susceptibility to infection allows providers to recognize risks and perform basic infection prevention measures to prevent infection from occurring.

If you can break any link in the chain of infection, you can prevent the occurrence of new infection. In-home aides have many chances in their work to break the chain of infection.

**Examples of How to Break the Chain of Infection-Hand washing, hand washing, hand washing!**

- Use alcohol-based hand rubs per agency policy
- Cover mouth when sneezing/coughing
- Stay home when sick
- Proper waste and trash disposal
- New toothbrush every few months
- Wiping doorknobs with antiseptic solution
- **No artificial nails or long fingernails**—because of their length, longer fingernails can harbor more dirt and bacteria than short nails, thus potentially contributing to the spread of infection
- Bathing daily
- Using clean gloves
- Immunizations
- Proper diet
- Wear clean clothes/uniform daily

**Tip for in-home aides:** Bring agency approved hand soap, paper towels, and hand sanitizers with you to each client’s home. Many homes will not be able to supply these items. Never wash your hands with the client’s bar soap or dry hands on the client’s towels hanging in the kitchen or bathroom. These may be dirty or possibly could have been hanging for several days. Check with your agency about approved lotions.

**PROPER HANDWASHING TECHNIQUE:**

- Wet your hands with clean running water (warm or cold) and apply soap.
- Rub your hands together to make a lather and scrub them well; be sure to scrub the backs of your hands, between your fingers, and under your nails.
- Continue rubbing your hands for at least 15 seconds. Need a timer? Hum the "Happy Birthday" song from beginning to end twice.
- Rinse your hands well under running water.
- Dry your hands using a clean towel or air dry.

**Hand washing, or using an alcohol-based hand rub, should be done at all of the following times:**

- Before shift begins
- Before putting on gloves for any task
- Before and after contact with a person’s skin (taking a pulse or blood pressure, lifting, etc.)
- After contact with body fluids or excretions, mucous membranes, broken skin, or wounds dressings
- If moving from a contaminated body site to a clean body site
- After contact with contaminated items or environments
- After removing gloves
- Wash hands with soap and water before eating and after using a restroom
- After coughing, sneezing, or blowing one’s nose
- After contact with soiled linen
- Before leaving the facility or person’s house at the end of the shift
Washing hands prevents illnesses and spread of infections to others:

People frequently touch their eyes, nose, and mouth without even realizing it. Germs can get into the body through the eyes, nose and mouth and make us sick. Germs from unwashed hands can get into foods and drinks while people prepare or consume them. Germs can multiply in some types of foods or drinks, under certain conditions, and make people sick. Germs from unwashed hands can be transferred to other objects, like handrails, tabletops, or toys, and then transferred to another person’s hands. Removing germs through handwashing therefore helps prevent diarrhea and respiratory infections and may even help prevent skin and eye infections.

When hands are visibly dirty or soiled, wash hands with soap and water. If hands are not visibly dirty or soiled, it is ok to use an alcohol-based hand rub for routinely cleaning hands in other situations (learn to use correctly to be effective, review your agency infection control policies for effective use of hand sanitizers). The Centers for Disease Control (CDC) recommends washing hands with soap and water whenever possible because handwashing reduces the amounts of all types of germs and chemicals on hands. But if soap and water are not available, using a hand sanitizer with at least 60% alcohol can help you avoid getting sick and spreading germs to others.

Alcohol-based hand sanitizers can quickly reduce the number of microbes on hands in some situations, but sanitizers do not eliminate all types of germs. Soap and water are more effective than hand sanitizers at removing certain kinds of germs, like Cryptosporidium, norovirus, and Clostridium difficile. Review your agency infection control policies regarding when handwashing versus hand sanitizer is required due to certain client conditions.

Did you know that germs can be transferred by people who do not seem to be sick themselves? Infection control practices are important to protect you and the person you provide care for. Keeping hands clean is one of the most important steps we can take to avoid getting sick and spreading germs to others. Many diseases and conditions are spread by not washing hands with soap and clean, running water.

**Bloodborne Pathogens** - pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV). The bloodborne pathogen standards can be found in the US Department of Labor OSHA standards 1910.1030. Tuberculosis (TB) is a disease caused by bacteria that can damage the lungs or other parts of the body like the spine, lymph nodes or kidneys. If not treated properly, TB disease can be fatal. TB is spread through the air from one person to another when a person with active TB disease of the lungs or throat coughs, sneezes, speaks or sings. As part of worker protections, your agency is required to follow OSHA standards for airborne and bloodborne pathogens and provide training and necessary personal protective equipment and other protections as needed.

**Standard Precautions** - are the minimum infection prevention practices that apply to all patient care, regardless of suspected or confirmed infection status of the patient, in any setting where healthcare is delivered. These practices are designed to both protect health care personnel (HCP) and prevent HCP from spreading infections among patients. Standard Precautions include: 1) hand hygiene, 2) use of personal protective equipment (e.g., gloves, gowns, masks), 3) safe injection practices, 4) properly handle and properly clean and disinfect patient care equipment and instrument/devices, clean and disinfect the environment appropriately and 5) respiratory hygiene/cough etiquette. **Standard Precautions** are based on a risk assessment and make use of common-sense practices and personal protective equipment use that protect healthcare providers from infection and prevent the spread of infection from patient to patient.

**Use gloves when** - cleaning areas where body fluids have spilled; when you may come in contact with urine, stool, blood, or other body fluids, or infected surfaces; when touching dirty items used in personal care; when touching dirty or bloody linens, towels, or clothes; when helping clients bathe, taking care of their mouth or dentures, cleaning perineal areas or “peri-care”, using toilets, bedpans, or urinals, changing pads or briefs, or cleaning around catheters.