# **Infection Prevention**

Cancer treatment can weaken your immune system. This means you may have a reduced ability to fight infections and other diseases. This is called being immunocompromised.

The body's immune system uses white blood cells to help defend against infection. If you are immunocompromised, your body has a reduced amount of white blood cells. Your immune system may not work as well as it should.

A decrease in your number of white blood cells is called neutropenia. Many cancer treatments can cause neutropenia.

Infections occur when germs, such as bacteria and viruses, enter your body and multiply. An infection can cause you to get sick. Bacteria and viruses spread through the air, water, food, surfaces and from one person, or animal, to another. Examples of infections caused by bacteria or viruses are urinary tract infections, ear infections and respiratory viral infections such as the flu.

The following information describes what you can do to help protect yourself from infections. The most important way to prevent the spread of infection is through hand washing and using alcohol-based hand sanitizers.

## **Risk of Infection**

Talk with your care team about your risk of infection. Many treatments and medical conditions cause patients to be immunocompromised. These include:

- Cancer treatments
- Stem cell transplant and bone marrow transplant
- Certain medicines or steroids that affect the immune system
- Blood cancers such as leukemia, lymphoma and myeloma
- A low white blood cell count (neutropenia)
- Immune deficiencies, such as HIV

Certain activities may increase your risk of getting an infection. Ask your care team if you should take extra precautions, such as wearing a face mask or avoiding these activities. These include:

- Being in crowded public areas, such as theatres or restaurants
- Being in construction areas, including any area where buildings or streets are being repaired, torn down or constructed. Large amounts of dust and debris may be in the air.
- Having contact with animals or animal waste
- Having contact with someone who is sick or has an acute respiratory illness, such as a cold or flu

#### How to Wash Your Hands

To remove dirt and germs, follow these steps every time you wash your hands:

- 1. Wet your hands and use enough soap for a good lather (about the size of a nickel or quarter).
- Rub your hands together for 20 seconds. Make sure to scrub all surfaces. This includes between your fingers and under your fingernails. The amount of time you wash is important. To make sure you wash for enough time, imagine singing the "Happy Birthday" song 2 times.
- 3. Rinse your hands well with water.
- 4. Use a paper towel to turn off the water in order to keep your hands clean.

#### Hand Sanitizer

Alcohol-based hand sanitizer kills germs on your hands. Use it when your hands are not visibly dirty:

- 1. Choose a sanitizer with at least 60% alcohol content.
- 2. Apply enough sanitizer to cover your hands.
- 3. Rub your hands together for 20 seconds or until the product is dry.
- 4. If your hands dry in less than 20 seconds, it means the amount of sanitizer was not enough. Get more sanitizer and repeat the process.

#### When to Clean Your Hands

Remember to clean your hands:

- When your hands are dirty
- Before and after contact with another patient, family member or care team member
- Before eating and drinking
- Before and after preparing and handling food, especially raw meat
- After handling dirty items
- After blowing your nose, sneezing or coughing
- After going to the restroom
- After touching any hospital surfaces such as doorknobs, bed rails, phones or remote controls
- After being in a public place
- After putting on or taking off your face mask

#### **Wearing Gloves**

Using gloves to touch public surfaces is **not necessary**. It is best to wash your hands regularly.

Use disposable gloves when you:

- Clean and disinfect your home.
- Care for someone who is sick.

**Do not reuse or disinfect gloves.** Throw gloves away in a lined trash can and wash your hands after you remove the gloves.

## **Other Ways to Protect Against Infections**

- Cover your coughs and sneezes with a tissue. Dispose of used tissues and wash your hands.
- **Do not** touch your eyes, nose or mouth with unwashed hands.
- **Do not** share personal items such as dishes, towels, creams or toothbrushes.
- Clean and disinfect surfaces that are touched often, such as countertops, doorknobs, remote controls, light switches, desks, phones, keyboards, toilets, sinks and faucets.
- Wash and cook your food thoroughly.
- Use a face mask when you are in public places. It should fully cover your mouth and nose. This protects you and other people. Change your face mask when it becomes damp, visibly dirty or torn.
- Avoid shaking hands with other people.
- Practice safe sex by using condoms, dental dams or similar barrier methods. Wash genital areas thoroughly after any sexual activity.
- Try to avoid people who are sick. If this is not possible, you and the person who is sick should wear high quality face masks until the symptoms are gone.

When a family member is sick:

- Clean surfaces touched by the person who is sick.
- **Do not** share food or drinks.
- **Do not** eat or drink with the same utensils or cups.
- Wash your hands often.
- The person who is sick should dispose of their used tissues and wash their hands after they blow their nose, cough or sneeze.

# **Signs of Infection**

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Know the possible signs of infection. Call your care team right away if you have any of the following symptoms:

- Fever. Check your temperature if you feel warm, chilled, flushed or not well. If you have a fever of 100.4°F (38°C) or higher, contact your doctor **right away**.
- Diarrhea or vomiting
- Increased pain, redness or soreness
- Cough, congestion or sore throat
- Shortness of breath
- Increased urination
- Stiffness in your neck

## **More Information**

Ask your care team if you have questions about how to prevent infections.