

# CANCER, INFECTION AND SEPSIS FACT SHEET

A POTENTIALLY DEADLY COMBINATION EVERY CANCER PATIENT SHOULD KNOW ABOUT

## Why does cancer put me at risk for developing an infection and sepsis?

Having cancer and undergoing certain treatments for cancer, such as chemotherapy, can make your body unable to fight off infections the way it normally would.

## What is the difference between infection and sepsis?

An **INFECTION** occurs when germs enter a person's body and multiply, causing illness, organ and tissue damage, or disease. For cancer patients, an infection can turn serious, or even deadly, very fast.

**SEPSIS** is a complication caused by the body's overwhelming and life-threatening response to infection which can lead to tissue damage, organ failure, and death. For a person with cancer, any infection that is anywhere in your body can lead to sepsis.

## How does chemotherapy increase my risk for infection and sepsis?

Chemotherapy works by killing the fastest-growing cells in your body—both good and bad. This means that along with killing cancer cells, chemo also kills your infection-fighting white blood cells.

## Is there a specific time I may be more likely to get an infection?

An infection or sepsis can happen at any time. However, when your body has very low levels of a certain type of white blood cell (neutrophils), your risk of getting an infection that can lead to sepsis increases. This condition is a common side effect of chemo called *neutropenia*.

## How will I know if I have neutropenia?

Your doctor will routinely test for neutropenia by checking the level of your white blood cells (neutrophils).

## How can I prevent an infection?

In addition to receiving treatment from your doctor, the following suggestions can help reduce your risk for getting an infection:

- Wash your hands often and ask others around you to do the same.
- Avoid crowded places and people who are sick.
- Talk to your doctor about getting a flu shot or other vaccinations.
- Take a bath or shower every day (unless told otherwise).
- Use an unscented lotion to try to keep your skin from getting dry or cracked.
- Clean your teeth and gums with a soft toothbrush.
- Use a mouthwash to prevent mouth sores (if your doctor recommends one).
- Do not share food, drink cups, utensils or other personal items, such as toothbrushes.
- Cook meat and eggs all the way through to kill any germs.
- Carefully wash raw fruits and vegetables.
- Protect your skin from direct contact with pet bodily waste (urine or feces).
- Wash your hands immediately after touching an animal or removing its waste, even after wearing gloves.
- Use gloves for gardening.

*In your fight against cancer, arm yourself with the facts about infection and sepsis.*

*Having cancer and certain treatments for cancer, such as chemotherapy, can put you at higher risk of developing an infection and sepsis.*

*Getting an infection or developing sepsis is a medical emergency. Either condition can delay your treatment, put you in the hospital or be deadly.*



Centers for Disease  
Control and Prevention  
National Center for Emerging and  
Zoonotic Infectious Diseases

## What are the signs and symptoms of an infection?

Watch for signs of an infection, such as:

- Fever, chills or sweats
- Redness, soreness, or swelling in any area, including surgical wounds and ports
- Diarrhea and/or vomiting
- Sore throat, cough or nasal congestion
- New sore in the mouth
- Shortness of breath
- Stiff neck
- Unusual vaginal discharge or irritation
- New onset of pain
- Changes in skin, urination, or mental status

## What are the signs and symptoms of sepsis?

Sepsis is a bad outcome from an infection. There is no single sign or symptom of sepsis. It is, rather, a combination of symptoms.

**SYMPTOMS** can include **ANY** of the above infection symptoms, plus the following:



**Shivering, fever, or very cold**



**Extreme pain or discomfort**



**Clammy, or sweaty skin**



**Confusion or disorientation**



**Short of breath**



**High heart rate**

## What should I do if I think I have an infection or sepsis?

- Call your doctor or go to the emergency room immediately if you have any signs or symptoms of an infection or sepsis. This is a medical emergency.
- It's important that you say, "I HAVE CANCER AND AM CONCERNED ABOUT INFECTION AND SEPSIS."

## Where can I get more information?

- Centers for Disease Control and Prevention (CDC)—CDC works 24/7 protecting America's health, safety and security. Whether diseases start at home or abroad, are curable or preventable, chronic or acute, stem from human error or deliberate attack, CDC is committed to responding to America's most pressing health challenges. [cdc.gov/sepsis](http://cdc.gov/sepsis)  
[cdc.gov/cancer/preventinfections](http://cdc.gov/cancer/preventinfections)
- CDC Foundation—The CDC Foundation and its donors support CDC's work by helping to raise awareness about the importance of preventing infections in cancer patients. [www.preventcancerinfections.org](http://www.preventcancerinfections.org)
- The Rory Staunton Foundation for Sepsis Prevention—Supports education and outreach efforts aimed at rapid diagnosis and treatment of sepsis, particularly in children. [rorystauntonfoundationforsepsis.org](http://rorystauntonfoundationforsepsis.org)
- Sepsis Alliance®—Created to raise sepsis awareness among both the general public and healthcare professionals. Sepsis Alliance offers information on a variety of sepsis-related topics. Visit [sepsis.org/library](http://sepsis.org/library) to view the complete series of titles. [sepsis.org](http://sepsis.org)