

Cancer, Infection, and Sepsis

A potentially life-threatening combination **every cancer patient should know about.**



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

Having cancer and receiving cancer treatments like chemotherapy can make your body unable to fight off infections.

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 potentially life-threatening, very fast.

Sepsis is the body's extreme response to an infection. It is a life-threatening medical emergency. Sepsis happens when an infection you already have triggers a chain reaction throughout your body. Infections that lead to sepsis most often start in the lung, urinary tract, skin, or gastrointestinal tract. Without fast treatment with antibiotics, sepsis can quickly lead to tissue damage, organ failure, and death.

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. Along with killing cancer cells, some types of chemo also kill your infection-fighting white blood cells.



About 1 in 5 sepsis hospitalizations are cancer-related.

If you have cancer and are getting some treatments, like chemotherapy, you might be more likely to get an infection. That infection could lead to sepsis.

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

**GET AHEAD
OF SEPSIS**

KNOW THE RISKS.
SPOT THE SIGNS.
ACT FAST.

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

An infection can happen at any time, since sepsis can only happen when you have an infection. 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, physician assistant, nurse practitioner, or nurse will routinely test for neutropenia by checking the level of your white blood cells (neutrophils).



How can I prevent an infection?

Treatment from your doctor, physician assistant, nurse practitioner, or nurse and the following suggestions can help prevent infections:

- **Carefully wash raw fruits and vegetables.**
- **Clean your hands frequently.**
- **Clean your teeth and gums** with a soft toothbrush, and if your doctor, physician assistant, nurse practitioner, or nurse recommends one, use a mouthwash to prevent mouth sores.
- **Cook meat and eggs** all the way through to kill any germs.
- **Do not share food, drink cups, utensils, or other personal items**, such as toothbrushes.
- During periods of high respiratory virus activity, **consider wearing a mask** when around people outside your household.
- **Get the seasonal flu shot** as soon as it is available.
- **Protect your skin** from direct contact with pet bodily waste (urine or feces) by wearing vinyl or household cleaning gloves when cleaning up after your pet. Wash your hands immediately afterwards.
- **Shower or bathe daily** and use an unscented lotion to prevent your skin from becoming dry and cracked.
- **Try to avoid crowded places** and contact with people who are sick.
- **Try to keep all your household surfaces clean.**
- **Use gloves for gardening.**

What are the signs and symptoms of an infection?

Watch for signs of an infection, such as:

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

What are the signs and symptoms of sepsis?

Patients with neutropenia are at higher risk of infection, which can sometimes lead to sepsis. A person with sepsis might have one or more of the following signs or symptoms:



**Clammy or
sweaty skin**



Confusion



**Extreme pain
or discomfort**



**Fever, shivering,
or feeling very cold**



**High heart rate or
low blood pressure**



Shortness of breath

What should I do if I think I have sepsis?

- Sepsis is a medical emergency, and you should be treated immediately either by your doctor, physician assistant, nurse practitioner, or nurse or by going to the emergency room. If you or your loved one has an infection that's not getting better or is getting worse, act fast.
- Tell your doctor, physician assistant, nurse practitioner, or nurse, "I have cancer. Could this be an infection that may lead to sepsis?"

