

## Side Effects - Infection and neutropenia

Cancer treatment kills cancer cells and may destroy healthy white blood cells (called neutrophils), which are one of our body's main defenses against getting sick. When our white blood cell count dips low this is a common side effect called neutropenia.

### Neutropenia is life-threatening!

#### WHAT'S THE BIG DEAL

- 60,000 cancer patients are hospitalized in the United States each year because their neutropenia will lead to a serious infection.
- 1 in 14 of these patients will die.\*



#### HOW IT WORKS

Chemo may cause you to get neutropenia.



Neutropenia increases the chance of getting an infection.



An infection can delay the treatment, put you in the hospital and be deadly.



#### WHAT! NO WARNING SIGNS?

That's right. Neutropenia is an invisible side effect. The only way to know if and when you have neutropenia is through a blood test.

#### A RED FLAG!



A fever in a cancer patient is an emergency and may be the only sign of an infection.

#### TAKE CONTROL



Take your temperature anytime you don't feel well or whenever your provider recommends.



If you have to go to the ER, tell the person checking you in that you have cancer and are receiving chemo.



#### Ask your provider

- when you're most at risk (when your white blood cell count will be lowest).



If you get a fever of 100.4° F or higher, call your provider immediately ... even after hours.

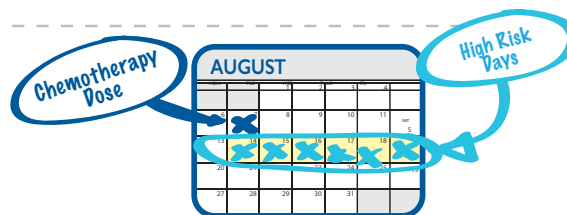


Wash your hands a lot and encourage your loved ones and anyone around you to do the same.

- when you and your loved ones should get a flu shot.

#### YOU HAVE HIGH RISK DAYS

- You could develop neutropenia 7-12 days after each chemotherapy dose.



\*Caggiano V, et al. Cancer. 2005; 103: 1916-1924

Source: Preventing Infections in Cancer Patients is a comprehensive initiative led by CDC and the CDC Foundation to reduce infections in cancer patients. For more information on this topic and to learn more about this program, please visit [www.PreventCancerInfections.org](http://www.PreventCancerInfections.org). This program was made possible through a CDC Foundation partnership with, and funding from, Amgen. As part of the partnership, the CDC Foundation considered oncology expertise provided by Amgen.

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### Take these steps to lower your chance of getting an infection:

- **Wash your hands well with soap and water**
  - a. Wash before you cook or eat, after you use the bathroom and after being in public.
  - b. Have people around you wash their hands too.
  - c. Check with your provider or nurse about when to use hand sanitizer.
- **Stay extra clean**
  - a. Brush your teeth after meals and before bed with a soft toothbrush.
  - b. Take a bath or shower daily and use unscented lotion.
  - c. If you have a catheter, keep that area clean and dry.
- **Try to stay away from germs**
  - a. Stay away from people who are sick or have a cold. Try to avoid big crowds.
  - b. Wash raw fruits and vegetables well.
  - c. Wash your hands after you handle raw meat. Cook meat well before eating it.
  - d. Avoid people who have just had a chicken pox, polio or measles vaccine.
- **Avoid cuts**
  - a. Use an electric shaver, not a razor.
  - b. Clean yourself well and gently after going to the bathroom. Let your nurse know if your rectal area is sore or bleeds.
  - c. Don't squeeze pimples.
- **Get a flu vaccination** Living with cancer increases your risk for complications from influenza (flu), including hospitalization or death. Center for Disease Control recommends people with cancer or history of cancer should get a seasonal flu shot.



In an emergency call **911**

Go to the Emergency Room (ER) or call immediately if you experience:

- Temperature of 100.4° F or higher
- Shakes or chills without a fever
- New chest pain, wheezing or trouble breathing
- Bleeding that does not stop
- IV catheter comes out or breaks
- New itching, rash or hives after treatment

If you go to the ER, tell the person checking you in that you are being treated for cancer.

Call if you experience:

- Redness, swelling, pain or drainage from wound, IV or injection site
- Frequent urination or burning with urination
- Problems eating, chewing, swallowing or develop mouth sores
- Vomiting or diarrhea that persists even with using the medications your doctor prescribed

If you have changes or signs that don't seem normal to you, call:

Nurse Advisor  
320-229-4989

Coborn Cancer Center  
320-229-4900

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- **Protect yourself from germs from your pet**
  - a. Protect your skin from contact with pet bodily waste by wearing gloves.
  - b. Wash with soap and water after cleaning pet urine/feces and playing with or caring for pets.
  - c. Avoid being scratched or bitten by your pet. If you do get scratched or bitten, immediately wash the wounds well with soap and water.
  - d. Stop your pet from licking your mouth or any open cuts or wounds you may have.
  - e. Keep your pet clean. Take your pet to the veterinarian for regular check-ups and vaccinations.

### Talk with your health care team

- What problems should I call you about?
- What other steps can I take to prevent an infection?
- How and when should I take my temperature?
- What problems should I go to the emergency room for?

Check with your provider or nurse before:

- you take any medicine, including aspirin, ibuprofen (such as Advil®) or acetaminophen (such as Tylenol®)
- you get any shot or vaccine

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**Sepsis is a combination of symptoms**

Sepsis is a bad outcome from an infection. There is no single sign or symptom of sepsis.

Call the **Nurse Advisor line at 320-229-4989** immediately if you think you may have sepsis.



**Shivering, fever, or very cold**



**Extreme pain or discomfort**



**Clammy or sweaty skin**



**Confusion or disorientation**



**Short of breath**



**High heart rate**