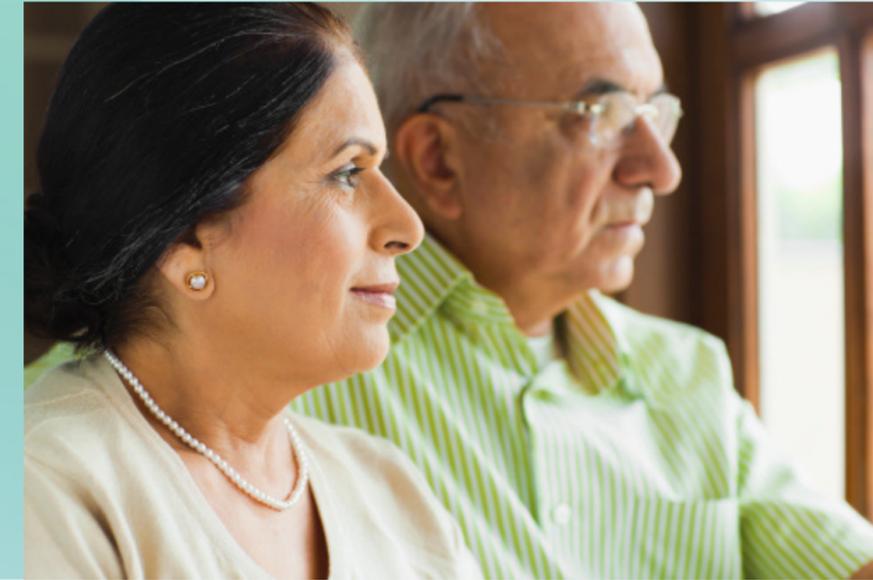


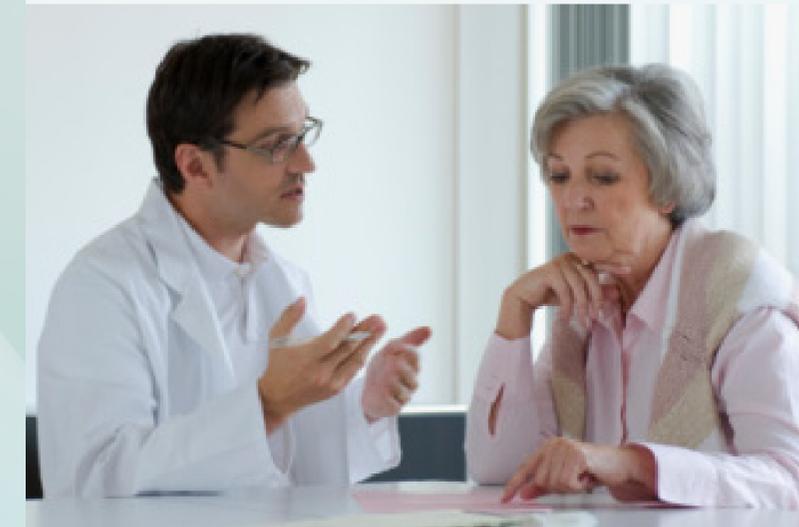
## IMPORTANT DISCUSSION POINTS FOR YOU AND YOUR HEALTHCARE TEAM

- What is febrile neutropenia? What are the symptoms?
- Are there symptoms that I should call you about right away? Whom should I call? Should I go to the emergency department?
- What are my treatment options for febrile neutropenia?
- Under what circumstances would my chemotherapy be delayed or reduced?
- Are there activities I should avoid if I have febrile neutropenia?
- Are there support services available in my area?
- How can I reduce my risk of febrile neutropenia?

*For more information about febrile neutropenia  
and the cancer journey, visit:*  
**[www.chemoready.ca](http://www.chemoready.ca)**



## FEBRILE NEUTROPENIA: *What patients and caregivers need to know*



This brochure is proudly supported by:

**Lymphoma Foundation Canada:**  
[www.lymphoma.ca](http://www.lymphoma.ca)

**Canadian Breast Cancer Network:**  
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[www.myeloma.ca](http://www.myeloma.ca)

## WHAT IS FEBRILE NEUTROPENIA?

It is common for patients with cancer, especially those receiving chemotherapy, to experience low white blood cell counts. Chemotherapy can dramatically reduce the number of neutrophils, a type of white blood cell, produced by your bone marrow. Neutrophils play an important role in protecting you from infection because they are your body's first line of defense against infection. They surround and destroy foreign cells, such as bacteria, to help keep you healthy.

Having too few neutrophils is called neutropenia and if you have neutropenia, you may be at increased risk of infection. Neutropenia (low white blood cell count) accompanied by fever and other signs of infection, is known as febrile neutropenia. The risk of fever and infection is higher for patients with cancer, especially if they are taking chemotherapy, so patients and their caregivers should monitor closely for them and report any symptoms to their health care team.



## HOW DO I RECOGNIZE FEBRILE NEUTROPENIA?

Neutropenia itself does not cause any symptoms. You may only realize that you have neutropenia when your doctor does a routine blood test or when an infection develops. Febrile neutropenia is marked by a fever which is an increase in body temperature above normal (38° degrees Celsius) and a lower than normal number of neutrophils in the blood. Patient and caregivers should also keep eye for symptoms of infection, which include:

- Fever
- Flu-like symptoms
- Shaking chills
- Severe night sweats
- Nausea and vomiting, especially with fever
- Tenderness, redness, swelling, pain or discharge at the site of a catheter
- Headache or neck stiffness

Patients should take these symptoms very seriously, especially fever, and you should visit your local emergency room or contact your oncology team immediately.

## WHAT CAUSES FEBRILE NEUTROPENIA?

Febrile neutropenia may arise as a result of numerous medical conditions:

- Medications that may damage the bone marrow or neutrophils, including cancer chemotherapy;
- Infections;
- Vitamin deficiencies;
- Diseases of the bone marrow such as leukemias and multiple myeloma;
- Radiation therapy.



## HOW IMPORTANT IS IT TO REDUCE THE RISK AND TO ALSO MANAGE FEBRILE NEUTROPENIA?

Of the more common side effects of chemotherapy, febrile neutropenia and infection are the most serious. If your white blood cell count becomes too low, your chemotherapy dose may need to be reduced or delayed.

Changes or delays to your chemotherapy dose or schedule can impact the results of your treatment. In addition, if left untreated, febrile neutropenia can lead to serious infections, which may be life-threatening and/or cause you to stay in the hospital.

Your healthcare team will check to see if you have low white blood cell counts frequently. If your white blood cell counts are too low, they may recommend treatment.

## TREATMENT OPTIONS FOR FEBRILE NEUTROPENIA

Sometimes patients with febrile neutropenia are prescribed antibiotics to help fight off any possible infections. Patients may also require routine injections of a drug that stimulates the growth and production of white blood cells and decreases the risk of febrile neutropenia.

Because neutropenia can be serious, it is best to avoid low white blood cell counts whenever possible. To reduce the risk and manage febrile neutropenia, your doctor may also prescribe treatment with a white blood cell growth factor, also known as a colony-stimulating factor (CSF). CSFs stimulate your bone marrow to make more white blood cells, boosting your neutrophil count and reducing the risk of infection and febrile neutropenia. The most frequent side effects of CSF treatment are bone and muscle aches.

If you are at high risk of developing neutropenia your doctor may prescribe a CSF to help prevent this problem.

