

Breast Cancer – Low White Blood Cell Count Precautions

White blood cells play an important role to fight infection in your body. When your white blood cells (WBCs) are below normal, you are more at risk for infection. Treatments, such as radiation, chemotherapy or targeted drug therapy, may cause your WBCs to go below normal.

A **neutrophil** is a type of white blood cell. Neutrophils make up half or more of your white cells. Neutrophils are measured as an **Absolute Neutrophil Count**, also called ANC. Your risk of infection goes up as your WBCs and neutrophils fall below normal.

If your WBC falls below 2,000 or your ANC is 1,000 or lower, you are at increased risk for infection. Here is a table to help you understand how the risk of infection changes with your cell counts:

WBC Count	ANC	Risk of Infection
10,000	5,000	Normal
5,000	2,500	Low
2,000	1,000	Moderate or Increased
1,000	500	High
less than 1,000	less than 500	Very High

When your WBCs and neutrophils are low, you are at a higher risk to develop an infection. **The germs that are always on your skin and inside your body are the most common cause of these infections.** You may be unable to prevent infection, but you can reduce your chance of an infection by following the guidelines in this handout.

This handout is for informational purposes only. Talk with your doctor or health care team if you have any questions about your care.

Ways to Help Prevent Infection When Your Risk is High

You have an increased risk for infection when your WBCs fall below 2,000 or your ANC is 1,000 or lower.

- Clean your hands often with an antibacterial soap. It is important to clean your hands before and after meals, after you use the toilet, handle body fluids, touch trash, change diapers or do yard work.
- Alcohol-based hand sanitizer can also be used. You may need to limit your use of hand sanitizer if the chemotherapy medicine (capecitabine, doxorubicin, docetaxel or paclitaxel) you are being treated with causes the skin on your hands to become red, tender, painful or irritated. Hand sanitize may make this worse.
- **Do not** use alcohol-based hand sanitizer if you can see dirt or debris on your hands or if you or someone you care for have a type of diarrhea caused by *Clostridioides difficile* (klos-TRID-e-OY-dees dif-uh-SEEL), also called “C. diff”. Instead, clean your hands with soap and water.
- Look at your skin closely for cuts, rashes, redness, swelling, tenderness, itching, drainage or odors. Call your doctor or nurse if you have any of these signs or if you cut yourself and the cut does not heal within 3 days.
- Brush your teeth after you eat and before you go to bed with a soft toothbrush. Use a mouthwash that does not have alcohol in it. Call your doctor or nurse if you have any redness, white patches, cuts, ulcers or bumps on the inside of your mouth, gums or lips.
- Keep your fingernails and toenails clean and cut short. **Do not** get manicures or pedicure while on chemotherapy.
- Always wipe front to back after you urinate or have a bowel movement. Wash your hands well afterwards. It is best to use very soft toilet tissue. Wet wipes may help clean the area and prevent skin irritation.
- Use stool softeners or laxatives to keep from being constipated. Try to have a bowel movement at least every other day.
- **Do not** let your rectal area become sore, for example, from diarrhea. Use a sitz bath for comfort and keep the area clean after each diarrhea stool. Use a barrier cream or zinc oxide ointment (such as Desitin) to decrease skin irritation.
- Wear gloves when you garden.

- Ask your doctor before you get vaccinations or if you have questions about your family members who have recently received vaccinations.
- If you have plans to travel, talk to your doctor about any precautions you must take.
- Ask your doctor about upcoming dental or medical procedures. Routine teeth cleaning may continue during chemotherapy
- Get plenty of rest and exercise. Try to get 6 to 8 hours of sleep a night. It is important to keep active during the day to help you feel stronger. Activity may include walking, light aerobic exercise or light house work.
- If you have any type of vascular device, learn how to take care of it properly. Closely follow the instructions to care for it. Be sure anyone who touches your catheter or provides care for your vascular access device (central line or implanted port) has cleaned their hands first. Tell your doctor or nurse if the skin around it looks infected (red swollen, drainage that looks like pus) or changes in any way.
- If you do not feel well, check your temperature. **Call your doctor if you have a fever of 100.4 degrees Fahrenheit (38 degrees Celsius) or higher.**

<p>A fever can be life threatening if not treated. Call your doctor right away if you have a fever.</p>
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- **Call your doctor if you have any of the following:**
 - ▶ Chills
 - ▶ Sweating a lot
 - ▶ Feel more tired than usual
 - ▶ Warm or flushed skin
 - ▶ Feel cool and your skin is clammy
 - ▶ Restless, irritable or confused
 - ▶ Sore throat
 - ▶ Cough, especially if you are coughing up anything
 - ▶ Change in your urine color or odor, burning with you urinate, a need to urinate more often or if you feel like you have to go right away.
 - ▶ Watery diarrhea. Your doctor may tell you to take medicine (such as Loperamide) to control this problem. If you have watery diarrhea more than 3 times after you take this medicine, call your doctor again.

Other things you can do to prevent infection:

- **Do not** have close contact with people who have a contagious illness including colds, sore throats, cold sores, diarrhea, or flu, “pink eye”, chicken pox, measles or mumps.
- **Do not** wear dentures that do not fit well. Dentures that do not fit may cause mouth sores that can get infected.
- **Do not** use rectal thermometers, enemas or suppositories unless your doctor has told you it is okay to use these.
- **Do not** use hot tubs or saunas.
- When possible, stay away from indoor areas or events that may be crowded. It is important to wash your hands often, with soap and water, when you are around crowds of people.

Diet and Food Guidelines for When Your WBCs are Low

Clean handling of food can help prevent infections caused by food germs. Below are some tips on how to handle and prepare food when your WBCs are low:

- Wash your hands with antibacterial soap before you touch any food.
- Refrigerate food to prevent spoiling. If you are unsure about the safety of the food, **do not** take a chance. Be safe and throw it out.
- After you cut or touch raw meat, wash your hands and use paper towels with a disinfecting cleaning spray to clean the counters.
- Wash all fruits and vegetables.
- Check the expiration date on packaged food.
- Always cook ground meat until it is well done. Wash your utensils and disinfect the cutting board with bleach between meats and other foods.

It is important that you and your caregivers follow these guidelines to help reduce your risk of infection when your WBC count is low. If you have questions about these guidelines, talk to your doctor, nurse or dietitian. Some of the guidelines may be changed to better meet your needs.