

During Chemotherapy: Neutropenia and Nadir

What is neutropenia?

Neutropenia, pronounced noo-troh-PEE-nee-uh, is an abnormally low number of white blood cells (neutrophils). These cells are your body's main defense against infection. When you have less than 1,000 white blood cells in your blood, it is easy for your body to get infections. Neutropenia increases your risk for infections. It is a common side effect of chemotherapy treatment. If you have neutropenia, doctors will sometimes refer to this as having a "low ANC." ANC stands for Absolute Neutrophil Count.

What is nadir?

Nadir means "low point." After each chemotherapy cycle, a person with cancer reaches a blood cell count "nadir." This means that their blood cell counts are the lowest they will be during that treatment cycle.

The main concern during a nadir is the drop in white blood cells. This is because white blood cells help your body fight infection.

After the nadir, your blood cell count will start to rise again. This will lower your risk of infection. You will not have another dose of chemotherapy until your blood cell counts are back in a safe level.

What happens during my nadir?

If you're in your nadir period, the good news is that you just completed another round of chemotherapy. You are one step closer to having this behind you. But, your body's first line of defense (white blood cells) will be at its lowest point. During your nadir you may be more likely to develop an infection. You should carefully watch for signs and symptoms of infection during this time. Common signs of infection include:

- Fever
- Feeling tired or exhausted (fatigue)
- Sore throat
- Swollen lymph nodes
- Ulcers around mouth or anus
- Diarrhea (runny poop)
- Feeling a burning sensation when you pee, or feeling that you have to pee more often than normal or urgently

You can also take extra steps to prevent infections. Doing things like washing your hands regularly and staying away from sick people can help you stay healthy.

To keep your immune system strong during chemotherapy, your doctor may prescribe medicine that will help your body make more white blood cells. The medicine may help you come out of your nadir sooner.



How do I know when my nadir is?

Your doctor or nurse will tell you. For most people, your nadir will start about 7 to 12 days after each chemotherapy dose. The nadir usually lasts 5 to 7 days. During these 5 to 7 days, the number of white blood cells in your body will be at its lowest.

For example, if you have a dose of chemotherapy on May 7, your nadir is between May 14 and May 19. This is when you are the highest risk of getting an infection. This time period may change a little depending upon which chemotherapy drug or drugs you take.



What can I do?

- Find out from your doctor or nurse exactly when your white blood cell count is likely to be at its lowest. Ask for their advice on what to do to avoid infections.
- Wash your hands often, especially after using the bathroom and before eating.
- Cooking food kills germs that could harm you. Do not eat any:
 - Fresh fruits
 - Uncooked vegetables
 - Raw meat
 - Raw seafood
 - Raw (unpasteurized) dairy products
- Avoid large crowds or places where you may have contact with sick people. Wear a mask if you must go out or are in a large crowd.
- Take your temperature any time you feel:
 - Warm
 - Flushed (feeling like you are blushing)
 - Chilled
 - Not well
- If your temperature is 100.4°F (38°C) or higher, call your IHTC doctor or nurse right away (317-871-0000)

