
What is Neutropaenia?



Neutrophils are a type of white blood cell. White blood cells protect us from infections. Neutrophils are the “first responders” in the presence of infective pathogens and quickly appear at the site of the infection. These cells ingest and destroy foreign particles. A normal count of neutrophils also called the absolute neutrophil count, ranges from 2.5 to 6. A neutrophil count of less than 1 is called neutropaenia. Neutropaenia is common in patients who are receiving and undergoing chemotherapy and can increase your risk of infection.

How does chemotherapy increase the risk of Neutropaenia?



Chemotherapy drugs work by destroying the fast-growing cells, which include both cancer cells and healthy cells. The destruction of healthy white blood cells results in neutropaenia.

How will I know if I have Neutropaenia?



Neutropaenia is common in patients receiving chemotherapy. Our doctor will test your blood at regular intervals during cancer treatment to test for neutropaenia.

When is the risk of developing Neutropaenia the highest?



Neutropaenia usually occurs around 7 to 12 days after chemotherapy. This period may differ depending on your type of chemotherapy drug. It is crucial to watch for signs of infection during this period.

How can Neutropaenia be prevented?



It is difficult to prevent neutropaenia. However, during chemotherapy you may receive growth factor injections to stimulate the production of neutrophils. There are several growth factors available such as filgrastim and pegfilgrastim.

What can I do to lessen my risk of getting an infection while I am neutropaenic?

- Clean hands frequently with soap and water.
- Avoid close contact with people who are sick.
- Follow an oral hygiene regimen. Clean gums and teeth with a soft toothbrush.
- Use a mouthwash recommended by your doctor to avoid mouth sores.
- Avoid being in close contact with children and adults who have recently received vaccines.
- Use electric razors to prevent cuts that may get infected.
- If you have a central catheter (Port-a-Cath, PICC, Hickman), make sure it is clean and dry at all times. Check the area for tenderness, redness, and soreness daily.
- Avoid large crowds in shopping malls, public transportation, and in church, where you might come in contact with germs. If you must visit these places, go during non-peak hours.
- Avoid contact sports that may increase your risk of cuts and injuries.
- Apply sunscreen with SPF 15 or higher to minimise the risk of sunburn.
- Do not receive any vaccine or undergo any dental procedures without consulting our doctor.
- Women should avoid using tampons when they are neutropaenic as it may increase the risk of infections and toxic shock syndrome (TSS). Instead, use sanitary napkins.
- Avoid using rectal suppositories.
- Bathe or shower daily. Use an unscented lotion to avoid dryness and cracking of the skin.
- Do not share food, drinks, utensils, cups, or other personal items, including toothbrushes.
- Wash raw vegetables and fruits thoroughly before eating and cooking.
- Cook eggs and meat thoroughly to kill germs.
- Use gloves when gardening.
- Keep all household surfaces clean.
- Avoid handling animal waste such as cat litter, fish tank water, and birdcage waste.
- Neutropaenic patients should not have intercourse as this poses an infection risk.

What are the signs and symptoms of an infection?

If you notice any symptoms of infection, seek medical attention immediately. Minor infections can become serious very quickly. You will need to undergo tests to detect the source of infection and be treated with antibiotics.

Common signs and symptoms of infections you should be aware of

- Fever. Check your body temperature daily, and at any time you feel feverish. If your temperature is 38.0°C or higher, contact a doctor right away.
- Shaking chills.
- Cough, nasal congestion, sore throat, and shortness of breath.
- Burning while passing urine or pain in the lower back.
- Blood in the urine or increased urination
- Redness and/or soreness around a wound or central line catheter.
- Rash, swelling, and redness of the skin.
- Ulcers and white patches in the mouth.
- Swelling and soreness in your mouth and throat or a change in the colour of the gums.
- Stiff neck
- Unusual vaginal irritation or discharge
- Diarrhoea and vomiting
- Pain in abdomen or rectum

Are there any precautions I should take with food when I am neutropaenic?

When you are neutropaenic, you are at risk of food-borne illnesses. There are precautions you should follow to ensure **food safety**:

- Wash your hands before preparing food.
- Wash all fruits and vegetables thoroughly before eating and cooking.
- Make sure food is well cooked, especially meats.
- Avoid rare-cooked or raw fish and meat.
- Use pasteurised eggs, milk, cheese, yoghurt, and other dairy products. Cook eggs thoroughly
- You may consume honey and fruit juices.
- Check “use-by” dates on groceries.
- Avoid salad bars and buffets.
- Keep the work area in the kitchen clean.
- Keep poultry and raw meat apart from cooked foods to avoid cross-contamination.

Precautions to follow when visiting the emergency department

When you visit an emergency department, inform the doctor or nurse that you are undergoing chemotherapy and have the symptoms of infection. Patients receiving chemotherapy should avoid sitting in a waiting room for extended periods.

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