



## Pemetrexed (Alimta®)

**Pronounce:** pem-e-TREX-ed

**Classification:** Antifolate Antineoplastic Agent

### About Pemetrexed (Alimta®)

Pemetrexed works by blocking three enzymes that cells need to replicate. These enzymes, needed for folate-dependent metabolic processes, are required for DNA replication. By blocking DNA production, cell growth and division is stopped, causing cancer to slow or stop growing. Since cancer cells, in general, divide faster and with less error-correcting than healthy cells, cancer cells are more sensitive to this damage.

### How to Take Pemetrexed

Pemetrexed is given by intravenous (IV, into a vein) infusion. The dose is based on your height and weight. A steroid medication is often given before pemetrexed to decrease skin rash. A folic acid supplement and an injection of B12 may be given along with pemetrexed. These vitamin supplements should decrease the side effects you may have. Speak with your provider about specific dosing of steroids, folic acid, and B12 and the timing of these medications.

Let your provider know all medications, vitamins, and supplements you are taking as some can affect how pemetrexed works. Tell your care provider if you take any form of NSAID (non-steroidal anti-inflammatory drug) such as aspirin or ibuprofen because, taken in conjunction with pemetrexed, can cause kidney problems.

### Possible Side Effects of Pemetrexed

There are a number of things you can do to manage the side effects of pemetrexed. Talk to your care team about these recommendations. They can help you decide what will work best for you. These are some of the most common or important effects:

#### Nausea and/or Vomiting

Talk to your oncology care team so they can prescribe medications to help you manage [nausea and vomiting](#). In addition, dietary changes may help. Avoid things that may worsen the symptoms, such as heavy or greasy/fatty, spicy or acidic foods (lemons, tomatoes, oranges). Try saltines, or ginger ale to lessen symptoms.

Call your oncology care team if you are unable to keep fluids down for more than 12 hours or if you feel lightheaded or dizzy at any time.

#### Decrease in Appetite

[Nutrition](#) is an important part of your care. Cancer treatment can affect your appetite and, in some cases, the side effects of treatment can make eating difficult. Ask your oncology care team about nutritional counseling services at your treatment center to help with food choices.

- Try to eat five or six small meals or snacks throughout the day, instead of 3 larger meals.
- If you are not eating enough, nutritional supplements may help.
- You may experience a metallic taste or find that food has no taste at all. You may dislike foods or

beverages that you liked before receiving cancer treatment. These symptoms can last for several months or longer after treatment ends.

- Avoid any food that you think smells or tastes bad. If red meat is a problem, eat chicken, turkey, eggs, dairy products, and fish without a strong smell. Sometimes cold food has less of an odor.
- Add extra flavor to meat or fish by marinating it in sweet juices, sweet and sour sauce, or dressings. Use seasonings like basil, oregano, or rosemary to add flavor. Bacon, ham, and onion can add flavor to vegetables.

## Fatigue

**Fatigue** is very common during cancer treatment and is an overwhelming feeling of exhaustion that is not usually relieved by rest. While on cancer treatment, and for a period after, you may need to adjust your schedule to manage fatigue. Plan times to rest during the day and conserve energy for more important activities. Exercise can help combat fatigue; a simple daily walk with a friend can help. Talk to your healthcare team for helpful tips on dealing with this side effect

## Important but Less Common Side Effects

- **Low White Blood Cell Count (Leukopenia or Neutropenia):** White blood cells (WBC) are important for fighting infection. While receiving treatment, your **WBC count can drop**, putting you at a higher risk of getting an infection. You should let your doctor or nurse know right away if you have a fever (temperature greater than 100.4°F or 38°C), sore throat or cold, shortness of breath, cough, burning with urination, or a sore that doesn't heal.

### Tips to preventing infection:

- **Washing hands**, both yours and your visitors, is the best way to prevent the spread of infection.
- Avoid large crowds and people who are sick (i.e.: those who have a cold, fever or cough or live with someone with these symptoms).
- When working in your yard, wear protective clothing including long pants and gloves.
- Do not handle pet waste.
- Keep all cuts or scratches clean.
- Shower or bathe daily and perform frequent **mouth care**.
- Do not cut cuticles or ingrown nails. You may wear nail polish, but not fake nails.
- Ask your oncology care team before scheduling dental appointments or procedures.
- Ask your oncology care team before you, or someone you live with has any vaccinations.
- **Low Platelet Count (Thrombocytopenia):** Platelets help your blood clot, so when the **count is low** you are at a higher risk of bleeding. Let your oncology care team know if you have any excess bruising or bleeding, including nose bleeds, bleeding gums, or blood in your urine or stool. If the platelet count becomes too low, you may receive a transfusion of platelets.
  - Do not use a razor (an electric razor is fine).
  - Avoid contact sports and activities that can result in injury or bleeding.
  - Do not take aspirin (salicylic acid), non-steroidal, anti-inflammatory medications (NSAIDs) such as Motrin/Advil (ibuprofen), Aleve (naproxen), Celebrex (celecoxib) etc. as these can all increase the risk of bleeding. Please consult with your healthcare team regarding the use of these agents and all over the counter medications/supplements while on therapy.
  - Do not floss or use toothpicks and use a soft-bristle toothbrush to brush your teeth.
- **Low Red Blood Cell Count (Anemia):** Your red blood cells are responsible for carrying oxygen to the tissues in your body. When the **red cell count is low**, you may feel tired or weak. You should let your

oncology care team know if you experience any shortness of breath, difficulty breathing, or pain in your chest. If the count gets too low, you may receive a blood transfusion.

- **Kidney Problems:** Report any changes in your urinary habits, including a change in the amount or color of your urine. Be sure to notify your care provider if you take any form of NSAID (non-steroidal anti-inflammatory drug) such as aspirin or ibuprofen because, taken in conjunction with pemetrexed, can cause kidney problems.
- **Skin Changes/Rash:** These changes can include dryness, itching, and rash. Rash related to this medication typically occurs between doses and resolves before the next dose. A rash can result in blistering or peeling of the skin. Use an alcohol-free moisturizer on your skin and lips; avoid moisturizers with perfumes or scents. Your oncology care team can recommend a topical medication if itching is bothersome. If your skin does crack or bleed, be sure to keep the area clean to avoid infection. Be sure to notify your oncology care team of any rash that develops, as this can be a reaction.
- **Radiation Recall:** This medication may cause radiation recall. It may present as a skin reaction that looks like a sunburn (redness, swelling, soreness, peeling skin) in areas where radiation was previously given. Notify your oncology care team if you notice this side effect. Treatment can include topical steroid ointments and a delay in your next chemotherapy dose.
- **Pneumonitis:** Patients can develop an inflammation of the lungs (called pneumonitis) while taking this medication. Notify your oncology care team right away if you develop any new or worsening symptoms, including shortness of breath, trouble breathing, cough, or fever.

## Reproductive Concerns

Exposure of an unborn child to this medication could cause birth defects, so you should not become pregnant or father a child while on this medication. For women, effective birth control is necessary during treatment and for at least 6 months after the final dose. For men, effective birth control is necessary during treatment and for 3 months after the final dose. You should not breastfeed while receiving this medication and for one week after treatment is finished.

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