



Pembrolizumab

Names

The generic drug name is pembrolizumab (pem'bro'li'zue'mab). Keytruda® is a brand name. There may be other names for this medication.

Why am I Taking Pembrolizumab?

Pembrolizumab is used to treat many cancers that have recurred or that have been resistant to previous therapies including melanoma, non-small cell lung cancer, lymphoma, and head and neck, liver, and cervical cancers. It may be used to treat other types of cancer.

How is it Given?

Your medicine will be given by infusion into a vein (intravenous or IV), usually once every 3 weeks. It takes about 30 minutes to get one dose.

How Does it Work?

Pembrolizumab is a type of immunotherapy, not a traditional chemotherapy medication. Immunotherapy works with your immune system to fight cancer. Chemotherapy kills or slows down growth of cancer cells to shrink tumors. Immunotherapy gives your own immune system a boost. The goal is to increase your body's ability to produce certain disease-fighting white blood cells called T cells. T cells can attack the cancer cells to shrink the tumor now and over time.

A molecule called PD-1, which is present on T cells, can turn off your body's immune response to cancer. Pembrolizumab blocks PD-1 and allows active T cells to attack the cancer cells.

What Should I Tell My Doctor Before I Begin This Medication?

Tell your doctor if you:

- have ever had an allergic reaction to pembrolizumab or have allergies
- have, or have ever had, an organ transplant, liver damage from illness or medication, radiation therapy to your chest, diabetes, thyroid problems, lung or liver disease, or an autoimmune disease such as Crohn's disease, ulcerative colitis, lupus, sarcoidosis, etc.)
- are taking medication that suppresses your immune system, such as oral steroids like prednisone or dexamethasone
- are pregnant or breastfeeding

This drug can interact with other medications. Tell your doctor and pharmacist about all prescription and over-the-counter medications you take, including vitamins and supplements.

What Are Some Possible Side Effects?

- Fatigue, anemia
- Skin problems: itching (more common), rash (less common)
- High blood sugar, low blood sodium (salt)
- Cough (more common), shortness of breath (less common)
- Nausea (more common), vomiting (less common)
- Diarrhea, constipation
- Decreased appetite
- Joint, muscle, back, or abdominal pain
- Fever, headache

How Can I Manage These Side Effects?

- Drink at least 2-3 quarts of fluid every 24 hours, unless your doctor gives you other instructions. Get plenty of rest and maintain good nutrition.
- Wash your hands often.
- **Fatigue:** Stay as active as possible, but know it is okay to rest as needed. Find a balance between work and rest. Plan your activities, and do important things at a time of day when you feel like you have more energy. Avoid operating heavy machinery if you feel too tired.
- **Skin care:** Avoid exposing your skin to the sun. Wear sun block with SPF 30, long sleeve shirts, long pants, and a brimmed hat. If you get a rash, keep the area clean and dry and check with your doctor before using any creams or ointments on the area.
- **Nausea:** Eat smaller meals, more often. Avoid fatty and greasy foods. Ask your doctor about medication to help prevent/lessen nausea.
- **Check with your doctor before using any over-the-counter or herbal products for any symptom or side effect.**
- **Diarrhea** Use anti-diarrheal medicines such as loperamide (Imodium®). Loperamide (Imodium®) is available over the counter. Talk to your doctor about how much, and how often to take it. **Do not take more than 8 tablets (16mg) in a 24-hour period.** Call the clinic if this does not provide relief within 24 hours.
- **Constipation:** To help prevent constipation, add high fiber foods such as fruits, vegetables, and whole grains to your diet and, if possible, keep moving throughout the day. You will need to take a laxative. A suggested laxative is Senna-S (contains senna plus docusate), which is available over the counter. If this is ineffective after 2 days, please notify the clinic.
- **Mouth care:** Rinse your mouth with a mixture of $\frac{1}{2}$ teaspoon of baking soda in 8 ounces of water after every meal and at bedtime. Brush your teeth and gums with a soft toothbrush. (Soften by running it under warm water). Floss your teeth gently. Avoid smoking, tobacco products, alcohol, and mouthwashes that contain alcohol.

When Should I Call the Doctor?

Call 911 or go to nearest hospital emergency department if you have signs of a severe allergic reaction (anaphylaxis): wheezing, chest tightness or pain, lightheadedness, palpitations (heart beating irregularly), nausea/vomiting, shortness of breath, or swelling of face, lips, tongue, or tongue

Call your doctor immediately if you have:

- signs of infection: **temperature of 100.4° F (38° C) or above**, chills, sore throat, or frequent or burning urination
- signs of allergic reaction: rash, hives, itching
- chest pain

Call your doctor as soon as possible if you have:

- nausea, vomiting, or persistent or unusual headache that does not get better with prescribed medication
- easy bruising or bleeding, extreme fatigue

If you feel your symptoms are life-threatening, call 911 or go to the nearest hospital emergency room.

What Else Should I Know About Pembrolizumab?

- Immune-mediated reaction is a very serious, but uncommon, side effect that causes inflammation of an organ system. **Contact your doctor immediately** if you have signs of a serious immune-mediated reaction:
 - **Intestinal problems** (colitis): Black or sticky stools or stools with blood or mucus, diarrhea or more bowel movements than usual, change in bowel habits, unexpected weight changes; or stomach pain or tenderness
 - **Liver problems** (hepatitis): Yellowing of the skin or eyes, nausea or vomiting, feeling less hungry than usual, pain on the right side of your stomach area, dark urine, and easy bruising or bleeding
 - **Lung problems** (pneumonitis): new or changing shortness of breath, new or worse cough, and chest pain
 - **Hormone/gland problems** (thyroid, pituitary, and adrenal glands): Fast heartbeat, weight loss, increase in sweating, weight gain, hair loss, feeling cold, constipation, deeper voice than usual, muscle aches, dizziness or fainting, headaches that will not go away or unusual headache
 - **Nervous system problems** (neuropathy, meningoencephalitis): Severe muscle weakness, changes in mood or behavior, numbness or tingling in hands or feet, extreme sensitivity to light, fever, neck stiffness, or confusion
 - **Rash:** Blistering, peeling skin; rash that causes an open wound;; or rash that covers more than 25% of your body

- **Eye problems:** Blurry vision, double vision, eye pain or redness, or other vision problems
- **Kidneys:** Symptoms: changes in the amount or color of your urine, blood in your urine, swelling in your ankles, loss of appetite
- **Musculoskeletal problems:** Severe muscle or joint pains; severe muscle weakness
- **Heart problems:** Elevation in troponin, EKG changes, fainting, confusion, dizziness.

Do not get any kind of immunization or vaccination unless you have your doctor's permission.

- Check with your doctor before taking any new medications.
- Do not conceive or father a child while taking pembrolizumab. Both men and women should use a barrier method of contraception such as a condom or diaphragm. Pembrolizumab can cause fatal harm to a fetus. Talk with your doctor about when you may safely become pregnant.
- This drug can raise the level of sugar, triglycerides, and liver enzymes in your blood. It can also lower your blood level of sodium, albumin, and calcium. Keep all doctor and lab appointments so we can monitor you with blood tests.
- If you have any other questions about pembrolizumab, please talk to your doctor or pharmacist.