

Procarbazine (Matulane)

About This Medicine

Procarbazine is used to treat cancer. It is given orally (by mouth).

Possible Side Effects

- Bone marrow suppression. This is a decrease in the number of white blood cells, red blood cells, and platelets. This may raise your risk of infection, make you tired and weak, and raise your risk of bleeding.
- Increased heart rate
- Blurred vision or other changes in eyesight
- Soreness of the mouth and throat. You may have red areas, white patches, or sores that hurt.
- Dry mouth
- Nausea and vomiting (throwing up)
- Diarrhea (loose bowel movements)
- Constipation (not able to move bowels)
- Decreased appetite (decreased hunger)
- Pain in your abdomen
- Weakness
- Fever, chills
- Headache
- Infections
- Muscle and bone pain
- Tremor/shaking
- Foot drop, which is the inability to raise your foot at the ankle
- Effects on the nerves are called peripheral neuropathy. You may feel numbness, tingling, or pain in your hands and feet. It may be hard for you to button your clothes, open jars, or walk as usual. The effect on the nerves may get worse with more doses of the medicine. These effects get better in some people after the medicine is stopped but it does not get better in all people.
- Trouble sleeping
- Depression
- Decrease in hearing or loss of hearing
- Frequent urination at night

- Hair loss. Hair loss is often temporary, although with certain medicine, hair loss can sometimes be permanent. Hair loss may happen suddenly or gradually. If you lose hair, you may lose it from your head, face, armpits, pubic area, chest, and/or legs. You may also notice your hair getting thin.
- Rash, itching, flushing
- Darkening of the skin, or changes to the color of your skin
- Tiny red spots on the skin and/or bruises often from low platelets
- Sensitivity to light (photosensitivity). Photosensitivity means that you may become more sensitive to the sun and/or light. Your eyes may water more, mostly in bright light.
- Low blood pressure

Note: All possible side effects are not included. Your side effects may be different depending on your cancer diagnosis, condition, or if you are receiving other medicines in combination. Please discuss any concerns or questions with your medical team.

Warnings and Precautions

- This medicine may raise your risk of getting a second cancer, such as lung cancer, acute myelocytic leukemia and malignant myelosclerosis.
- Severe bone marrow suppression
- Allergic reactions, including anaphylaxis, are rare but may happen in some patients. Signs of allergic reaction to this medicine may be swelling of the face, feeling like your tongue or throat are swelling, trouble breathing, rash, itching, fever, chills, feeling dizzy, and/or feeling that your heart is beating in a fast or not normal way. **If this happens, do not take another dose of this medicine. You should get urgent medical treatment.**
- Changes in your central nervous system can happen. The central nervous system is made up of your brain and spinal cord. You could feel extreme tiredness, agitation, confusion, hallucinations (see or hear things that are not there), have trouble understanding or speaking, loss of control of your bowels or bladder, eyesight changes, numbness or lack of strength to your arms, legs, face, or body, seizures or coma. **If you start to have any of these symptoms let your doctor know right away.**
- Changes in your liver function, which can cause liver failure.
- Breakdown of your red blood cells, which can cause anemia (decreased red blood cells).
- Abnormal bleeding – symptoms may be coughing up blood, throwing up blood (may look like coffee grounds), red or black tarry bowel movements, abnormally heavy menstrual flow, nosebleeds or any other unusual bleeding.
- Inflammation (swelling) of the lungs. You may have a dry cough or trouble breathing.

Note: Some of the side effects above are very rare. If you have concerns and/or questions, please discuss them with your medical team.

Important information

- If you eat large amounts of tyramine-rich foods while you are taking procarbazine, you may experience a reaction that causes severe headache, nausea, vomiting, high blood pressure, chest



pain, or unusual or rapid heartbeat. These symptoms can be life-threatening. You must follow a diet low in tyramine. Ask your doctor and/or nurse for a detailed list of food to avoid.

- Wine, beer and other alcoholic beverages should be avoided while you are taking procarbazine since you may experience a medicine reaction that causes nausea, vomiting, flushing, dizziness, headache and hangover-like symptoms.

How to Take Your Medicine

- Swallow the medicine as prescribed by your doctor.
- **Missed dose:** If you vomit or miss a dose, contact your doctor for further instructions. Do not take 2 doses at the same time or extra doses.
- **Handling:** Wash your hands with soap and water, before and after handling your medicine, your caretakers should not handle your medicine with bare hands and should wear latex gloves.
- Cytotoxic medicines leave the body through urine and stool, but they can also be present in other body fluids such as blood, vomit, semen, and vaginal fluids. Take precautions to prevent others from coming in contact with your medicine or your body fluids. Follow safety precautions during your treatment and for as long as directed by your health care provider after your treatment. If you take a cytotoxic pill each day, follow these precautions every day.
- **Storage:** Store this medicine in the original container at room temperature. Protect from light.
- **Disposal of unused medicine:** Do not flush any expired and/or unused medicine down the toilet or drain unless you are specifically instructed to do so on the medicine label. Some facilities have take-back programs and/or other options. If you do not have a take-back program in your area, then please discuss with your nurse or your doctor how to dispose of unused medicine.

Treating Side Effects

- Manage tiredness by pacing your activities for the day.
- Get regular exercise, with your doctor's approval. If you feel too tired to exercise vigorously, try taking a short walk.
- Be sure to include periods of rest between energy-draining activities.
- To decrease the risk of infection, wash your hands regularly.
- Avoid close contact with people who have a cold, the flu, or other infections.
- Take your temperature as your doctor or nurse tells you, and whenever you feel like you may have a fever.
- To help decrease bleeding, use a soft toothbrush. Check with your nurse before using dental floss.
- Be very careful when using knives or tools.
- Use an electric shaver instead of a razor.
- Mouth care is very important. Your mouth care should consist of routine, gentle cleaning of your teeth or dentures and rinsing your mouth with a mixture of 1/2 teaspoon of salt in 8 ounces of water or 1/2 teaspoon of baking soda in 8 ounces of water. This should be done at least after each meal and at bedtime.
- If you have mouth sores, avoid mouthwash that has alcohol. Also avoid alcohol and smoking because they can bother your mouth and throat.
- Drink enough fluids to keep your urine pale yellow.
- Sugar-free hard candies and chewing gum can keep your mouth moist.



- If you throw up or have diarrhea, you should drink more fluids so that you do not become dehydrated (lack of water in the body from losing too much fluid).
- If you have diarrhea, eat low-fiber foods that are high in protein and calories and avoid foods that can irritate your digestive tracts or lead to cramping.
- To help with nausea and vomiting, eat small, frequent meals instead of three large meals a day. Choose foods and drinks that are at room temperature. Ask your nurse or doctor about other helpful tips and medicine that is available to help stop or lessen these symptoms.
- If you are not able to move your bowels, check with your doctor or nurse before you use enemas, laxatives, or suppositories.
- Ask your doctor or nurse about medicines that are available to help stop or lessen constipation and/or diarrhea.
- To help with decreased appetite, eat foods high in calories and protein, such as meat, poultry, fish, dry beans, tofu, eggs, nuts, milk, yogurt, cheese, ice cream, pudding, and nutritional supplements.
- Consider using sauces and spices to increase taste. Daily exercise, with your doctor's approval, may increase your appetite.
- To help with hair loss, wash with a mild shampoo and avoid washing your hair every day. Avoid coloring your hair.
- Avoid rubbing your scalp, patting your hair or scalp dry.
- Limit your use of hair spray, electric curlers, blow dryers, and curling irons.
- If you are interested in getting a wig, talk to your nurse and they can help you get in touch with programs in your local area.
- If you get a rash do not put anything on it unless your doctor or nurse says you may. Keep the area around the rash clean and dry. Ask your doctor for medicine if your rash bothers you.
- To help with dry skin and itching, moisturize your skin several times a day.
- Avoid sun exposure and apply sunscreen routinely when outdoors.
- Wear dark sunglasses when in the sun or bright lights.
- If you have numbness and tingling in your hands and feet, be careful when cooking, walking, and handling sharp objects and hot liquids.
- Keeping your pain under control is important to your well-being. Please tell your doctor or nurse if you are experiencing pain.

Food and Medicine Interactions

- There are known interactions of procarbazine with food. Foods that contain tyramine, which is part of a protein, should be avoided because of potential serious interaction with procarbazine. Some of these foods are aged cheese, aged/fermented/smoked and pickled meats and fish, concentrated yeasts extract such as Marmite and Vegemite, plus certain beans- fava beans and broad beans (Italian green beans). Wine, beer and other alcoholic beverages should also be avoided with procarbazine. Ask your doctor/nurse to provide you with a detailed list of food to avoid.
- Check with your doctor or pharmacist about all other prescription medicines and over-the-counter medicines and dietary supplements (vitamins, minerals, herbs, and others) you are taking before starting this medicine as there are known medicine interactions with procarbazine. Also, check with your doctor or pharmacist before starting any new prescription or over-the-counter medicines, or dietary supplements to make sure that there are no interactions.



When to Call the Doctor

Call your doctor or nurse if you have any of these symptoms and/or any new or unusual symptoms:

- Fever of 100.4° F (38° C) or higher
- Chills
- Tiredness and/or extreme weakness that interferes with your daily activities
- Feeling dizzy or lightheaded
- Headache that does not go away
- Trouble falling or staying asleep
- Lose interest in your daily activities that you used to enjoy and feeling this way every day, and/or you feel hopelessness
- Blurred vision or other changes in eyesight
- Sensitivity to light
- Yellowing of the eyes or skin
- Loss of hearing or ringing in the ear
- Feeling that your heart is beating in a fast or not normal way (palpitations)
- Pain in your chest
- Dry cough or cough that is bothersome
- Wheezing and/or trouble breathing
- Easy bleeding or bruising
- Signs of abnormal bleeding such as coughing up blood, throwing up blood (may look like coffee grounds), red or black tarry bowel movements, abnormally heavy menstrual flow, nosebleeds, or any other unusual bleeding
- Numbness, tingling, pins, and needles, or pain in your arms, hands, legs, or feet
- Extreme tiredness, confusion and/or agitation
- Hallucinations
- Symptoms of a seizure such as confusion, blacking out, passing out, loss of hearing or vision, blurred vision, unusual smells or tastes (such as burning rubber), trouble talking, tremors or shaking in parts or all of the body, repeated body movements, tense muscles that do not relax, and loss of control of urine and bowels. **If you or your family member suspects you are having a seizure, call 911 right away.**
- Trouble understanding or speaking
- Numbness or lack of strength to your arms, legs, face, or body
- Nausea that stops you from eating or drinking and/or is not relieved by prescribed medicines
- Throwing up more than 3 times a day
- Pain in your mouth or throat that makes it hard to eat or drink
- Difficulty eating/swallowing
- No bowel movement in 3 days or when you feel uncomfortable
- Diarrhea, 4 times in one day or diarrhea with lack of strength or a feeling of being dizzy
- Pain in your abdomen that does not go away
- Lasting loss of appetite or rapid weight loss of five pounds in a week



- Signs of allergic reaction: swelling of the face, feeling like your tongue or throat are swelling, trouble breathing, rash, itching, fever, chills, feeling dizzy, and/or feeling that your heart is beating in a fast or not normal way. **If this happens, call 911 for emergency care.**
- Frequent urination at night
- Pain that does not go away, or is not relieved by prescribed medicines
- New rash and/or itching or a rash that is not relieved by prescribed medicines
- Any new tiny red spots on the skin
- Signs of possible liver problems: dark urine, pale bowel movements, pain in your abdomen, feeling very tired and weak, unusual itching, or yellowing of the eyes or skin
- Signs of infection: fever or chills, cough, trouble breathing, severe pain in your abdomen, difficulty urinating, burning or pain when you pass urine, redness and/or swelling of the skin
- If you think you may be pregnant

Reproduction Warnings

- **Pregnancy warning:** This medicine can have harmful effects on the unborn baby. Women of childbearing potential should use effective methods of birth control during your cancer treatment. Let your doctor know right away if you think you may be pregnant.
- **Breastfeeding warning:** It is not known if this medicine passes into breast milk. For this reason, women should not breastfeed during treatment because this medicine could enter the breast milk and cause harm to a breastfeeding baby.
- **Fertility warning:** In men and women both, this medicine may affect your ability to have children in the future. Talk with your doctor or nurse if you plan to have children. Ask for information on sperm or egg banking.

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