



## Procarbazine (Matulane®)

### About This Drug

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

### Possible Side Effects

- Bone marrow depression. 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 (fatigue), and raise your risk of bleeding.
- Weakness
- Fever, chills
- Infections
- Nausea and throwing up (vomiting)
- Loose bowel movements (diarrhea)
- Constipation (not able to move bowels)
- Decreased appetite (decreased hunger)
- Pain in your abdomen
- Nocturia: frequent urination at night
- Soreness of the mouth and throat. You may have red areas, white patches, or sores that hurt.
- Dry mouth
- 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
- Muscle or joint pain/aching
- Tiny red spots on the skin and/or bruises often from low platelets
- Tremor or 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 drug. These effects get better in some people after the drug is stopped but it does not get better in all people.

- Blurred vision or other changes in eyesight
- 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.
- Decrease in hearing, loss of hearing
- Extreme tiredness or feeling sleepy
- Trouble sleeping
- Depression
- Hallucinations, confusion

**Note:** *Not all possible side effects are included above.*

#### Warnings and Precautions

This drug may raise your risk of getting a second cancer

Severe bone marrow depression

Allergic reactions, including anaphylaxis are rare but may happen in some patients. Signs of allergic reaction to this drug may be:

- Swelling of the face
- Feeling like your tongue or throat are swelling
- Trouble breathing
- Rash
- Itching
- Fever
- Chills
- Feeling dizzy
- Feeling that your heart is beating in a fast or not normal way

If this happens, do not take another dose of this drug. 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 very rarely cause liver failure

Breakdown of your red blood cells which is very rare and can cause anemia (low 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.

Low blood pressure and passing out

Increase in heart rate may occur

Bleeding in your retina and/or optic nerve swelling

## 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 eat and avoid.

## How to Take Your Medication

- You can take the medicine with or without food. If you have nausea, take it with food.
- Missed dose: If you miss a dose, do not take the missed dose and do not double up on the next dose. Instead, continue with your regular dosing schedule and contact your physician.
- If you vomit a dose, take your next dose at the regular time. Do not take 2 doses at the same time.
- Handling: Wash your hands after handling your medicine, your caretakers should not handle your medicine with bare hands and should wear latex gloves.
- This drug may be present in the saliva, tears, sweat, urine, stool, vomit, semen, and vaginal secretions. Talk to your doctor and/or your nurse about the necessary precautions to take during this time.

- **Storage:** Store this medicine in the original container at room temperature. 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. 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 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.

Keeping your pain under control is important to your well-being. Please tell your doctor or nurse if you are experiencing pain.

Ask your doctor or nurse about medicines that are available to help stop or lessen constipation or diarrhea.

If you are not able to move your bowels, check with your doctor or nurse before you use enemas, laxatives, or suppositories.

Drink plenty of fluids (a minimum of eight glasses per day is recommended).

If you throw up or have loose bowel movements, you should drink more fluids so that you do not become dehydrated (lack water in the body from losing too much fluid).

If you get 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 or stop lessen these symptoms.

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.

To help with decreased appetite, eat small, frequent meals.

To help with hair loss, wash with a mild shampoo and avoid washing your hair every day.

Avoid rubbing your scalp, pat your hair or scalp dry.

Avoid coloring your hair.

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. You can also call the American Cancer Society at 800-ACS-2345 to find out information about the “Look Good, Feel Better” program close to where you live. It is a free program where women getting chemotherapy can learn about wigs, turbans and scarves as well as makeup techniques and skin and nail care.

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, moisturize your skin several times day.

Avoid sun exposure and apply sunscreen routinely when outdoors.

Wear dark sun glasses 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.

If you are feeling depressed, talk to your nurse or doctor about it.

If you are having trouble sleeping, talk to your nurse or doctor on tips to help you sleep better.

Follow a diet low in tyramine. Ask your doctor and/or nurse for a detailed list of food to eat and avoid.

## Food and Drug 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®
- 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 a detailed list of food to eat and avoid.

Check with your doctor or pharmacist about all other prescription medicines and dietary supplements you are taking before starting this medicine as there are known drug interactions with procarbazine. Also, check with your doctor or pharmacist before starting any new prescription or over-the-counter medicines, or dietary supplement 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 100.5 F (38 C) or higher
- Chills
- Fatigue and/or extreme weakness that interferes with your daily activities
- Feeling dizzy or lightheaded
- Severe headache
- Feeling that your heart is beating in a fast or not normal way (palpitations)
- Pain in your chest
- Dry cough
- Trouble breathing
- Easy bleeding or bruising
- Blood in your urine, vomit (bright red or coffee-ground) and/or stools ( bright red, or black/tarry)
- Coughing up blood
- Loss of hearing
- Ringing in the ear
- Blurred vision or other changes in eyesight
- Sensitivity to light
- Pain in your abdomen that does not go away
- No bowel movement in 3 days or when you feel uncomfortable
- Loose bowel movements (diarrhea) 4 times a day or loose bowel movements with lack of strength or a feeling of being dizzy
- 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
- 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
  - Feeling that your heart is beating in a fast or not normal way
- Numbness, tingling, or pain your hands and feet
  - Confusion and/or agitation
  - Hallucinations
  - Seizures
  - Trouble understanding or speaking
  - Numbness or lack of strength to your arms, legs, face, or body
  - Lose interest in your daily activities that you used to enjoy and feeling this way every day, and/or you feel hopelessness
  - Signs of possible liver problems:
    - Dark urine
    - Pale bowel movements
    - Bad stomach pain
    - Feeling very tired and weak
    - Unusual itching
    - Yellowing of the eyes or skin
  - If you think you may be pregnant

## Reproduction Warnings

- **Pregnancy warning:** This drug can have harmful effects on the unborn baby. Women of child bearing 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 drug passes into breast milk. For this reason, women should not breast feed during treatment because this drug could enter the breast milk and cause harm to a breast feeding baby.
- **Fertility warning:** In men and women both, this drug 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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