

Busulfan Myleran® (oral) Busulfex® (intravenous)

What is Busulfan?

Busulfan is a chemotherapy drug used to treat a variety of cancers. It can be given alone or in combination with other chemotherapy agents.

How will I receive Busulfan?

Busulfan can be given by mouth in the form of tablets (2mg each) every six hours. Your dose will be determined by your weight and/or by how well your body gets rid of the drug. If you are taking Busulfan as part of your transplant regimen, you will require a large number of tablets. To minimize the number of tablets you have to take, these tablets are placed in gelatin capsules by the pharmacy. You will count the number of capsules for each dose prior to taking the drug. You will need to take several gelatin capsules to fulfill each dose. Make certain that you and your caregiver understand the directions prior to taking your dose. It is critical that you take your full dose and to stay on schedule. Oral Busulfan should be taken on an empty stomach. If you vomit after taking oral Busulfan, call your doctor, nurse or the clinic immediately for further instructions.

Busulfan can also be given by as an injection into your vein. It can be given once daily or in divided doses. Your dose will be determined by your weight and/or by how well your body gets rid of the drug.

The route (by mouth or into the vein) by which you receive Busulfan will be based on the reason you require the drug and/or the transplant protocol.

What if I miss a dose?

If you miss a dose, notify your doctor or nurse **IMMEDIATELY** for further instructions. **DO NOT** take the missed dose until you have spoken to your physician or nurse. Do not take double or take any extra medication to make up for the missed dose.

What are the common side effects?

Please see, “Managing Care at Home”, in the manual and refer to the Symptom Management section.

| What you may expect? | What should you do? |
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| <p>Decreased Blood Counts (low white blood cell, red blood cell, and platelet counts). You may develop fevers or infections, feel extremely tired or fatigued, or bleed or bruise more easily. Your doctor will test your blood frequently to monitor your blood counts. You may receive red blood cell and/or platelet transfusions.</p> | <ul style="list-style-type: none"> • Report any signs or symptoms of extreme tiredness or fatigue, excessive bleeding, or bruising to your physician or nurse. • Stay away from crowds and people with colds, flu, or other infections. • Keep your mouth clean to prevent infections. You may brush your teeth with a soft toothbrush. • Notify your physician or nurse if you have any signs or symptoms of infection, fever, chills, or sweating. |
| <p>Seizure with high dose therapy used for transplant</p> | <ul style="list-style-type: none"> • You will be given medication to prevent seizures. It is important that you take this medication exactly as directed by your doctor or nurse. • Do not drive a car or operate heavy machinery while you are taking the medication to prevent seizures. • Notify your physician if you have or had a history of seizures (convulsions) or head injury. • Notify your physician, pharmacist, or nurse if you develop an allergic reaction (rash, difficulty breathing, throat tightness) while you are taking the anti-seizure medication. |
| <p>Mouth sores can occur following therapy</p> | <ul style="list-style-type: none"> • Routinely rinse your mouth with salt water. • Follow the suggestions in the resource manual. |
| <p>Nausea and vomiting (especially with high doses) can occur during and following Busulfan therapy.</p> | <ul style="list-style-type: none"> • You may be given a prescription for an antinausea drug(s) to take at home. It is easier to prevent nausea than treat it once it has occurred. • Drink plenty of liquids. • Eat and drink often in small amounts. • If you vomit after you have taken your dose, notify your physician, nurse, or the clinic IMMEDIATELY for further instruction. |

These are the most common side effects. Others may occur. Please report any problems to your doctor, pharmacist, or nurse.

Other Less Common Symptoms

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| <p><i>Lung injury</i> is a rare but serious problem that can develop months or years following therapy. Symptoms include cough, difficulty breathing, and low fever.</p> | <ul style="list-style-type: none"> • Report symptoms of cough, difficulty breathing, or low grade fever to your doctor. • Talk to your doctor about the risk of this problem |
| <p><i>Liver injury</i> can occur with high doses of Busulfan.</p> | <ul style="list-style-type: none"> • You will be given a medication to prevent liver injury before, during, and following your therapy with Busulfan. It is important for you to take it as prescribed by your physician. • You will be monitored routinely for liver dysfunction. • Notify your physician, nurse, or pharmacist if you experience yellow discoloration in your skin or eyes. |
| <p><i>Skin discoloration</i> around skin folds can occur in 5-10% of patients. This is more common in patients with darker skin tones. Mild rashes can occur if you are receiving Busulfan through your veins.</p> | <ul style="list-style-type: none"> • Speak to your doctor about this risk. • Notify your doctor, nurse, or pharmacist if you are experiencing these side effects. |
| <p><i>Cataract formation</i> can occur in one or both eyes following short-term therapy or when it is combined with other chemotherapy agents.</p> | <ul style="list-style-type: none"> • Speak to your physician about the long-term risks. |
| <p>Busulfan can damage sperm or cause <i>sterility in men and interfere in the normal menstrual cycle in women</i>. It can also cause ovarian failure and may stop females from reaching puberty.</p> | <ul style="list-style-type: none"> • If you are pregnant OR plan to have children, discuss this with your physician before receiving treatment. Consider sperm collection or egg freezing prior to starting medication. Using this medication while you are pregnant can harm your unborn baby. • Use an effective form of birth control while you or your partner is being treated with Busulfan. • Notify your doctor immediately if you or your partner becomes pregnant. • Contact your doctor if you or your partner has missed any menstrual cycles while receiving therapy. |
| <p><i>Secondary cancers</i> such as leukemia and other blood cancers can occur years following treatment.</p> | <ul style="list-style-type: none"> • Discuss with your doctor about the potential risk of developing a new cancer. |

Call and Seek Help Immediately If You Have:

- Signs of an infection such as fever, chills, sore throat, cough, pain or burning when you urinate.
- Signs of uncontrolled bleeding such as black tarry stools, blood in the urine or severe bruising.
- Signs of unusual or sudden tiredness or weakness.
- Allergic reaction including itching or hives, swelling in the face or hands, swelling or tingling in the mouth or throat, or tightness in the chest.
- Difficulty breathing or shortness of breath.
- Seizures

Contact Your Nurse or Doctor If You Have:

- Uncontrolled nausea, vomiting, or diarrhea. If you are taking Busulfan by mouth and vomiting immediately following your dose, contact your doctor immediately for further instructions.
- Redness, swelling or pain at your catheter site.
- Yellow discoloration of the eyes or skin.
- Painful mouth sores that prevent you from eating and/or drinking fluids.
- Missed any doses of oral Busulfan.
- Skin rash and hives.
- Signs of gout such as pain, swelling, and/or warmth in the joints (i.e. elbows, big toes, etc).
- Stomach pain
- Swelling of legs and feet

Drug-Drug Interactions

You should avoid aspirin and aspirin containing medications unless you have talked to your doctor. Notify your doctor, pharmacist, or nurse if you are currently taking these medications. Receiving vaccines when your immunity is low can increase your chances of getting the infection that the vaccines were meant to prevent. You should talk to your physician, nurse, or pharmacist before getting any vaccines. Drug such as Fosphenytoin, Phenytoin, Itraconazole, Metronidazole, and Acetaminophen may interact with Busulfan. Discuss the drugs interactions with your doctor or nurse. **DO NOT** take any other medications including over-the-counter products, vitamins, nutritional supplements, and/or other herbal products before speaking to your doctor or pharmacist.

Drug-Food Interactions

None known at this time. See food restrictions below.

Food and Drink Restrictions

You should not eat or drink anything for 1 hour before and 1 hour after each dose. You may take a sip of clear liquid (water, soda, apple or cranberry juice, or coffee). Avoid milk, broth, or orange juice.

Special Instructions

Do not take Busulfan if you have had an allergic reaction to it in the past. Inform your doctor, pharmacist, or nurse if you are pregnant or breastfeeding. Use birth control when receiving chemotherapy. Talk to your doctor or nurse about any additional questions. Use gloves when emptying urine.

For more complete information please request an additional teaching sheet from the National Library of Medicine at www.nlm.nih.gov/medlineplus/druginformation.html, or your nurse, pharmacist, or Resource Center.