Carmustine (kar-MUS-teen) is a drug that is used to treat many types of cancer. It is a clear liquid that is injected into a vein.

Tell your doctor if you have ever had an unusual or **allergic reaction** to carmustine before taking carmustine.

A **blood test** may be taken before each treatment. The dose and timing of your chemotherapy may be changed based on the test results and/or other side effects.

Your doctor may tell you to **drink** extra fluids so that you will pass more urine. This will help prevent kidney problems.

Other drugs such as cimetidine, digoxin (LANOXIN®), and phenytoin (DILANTIN®) may **interact** with carmustine. Tell your doctor if you are taking these or any other drugs as you may need extra blood tests or your dose may need to be changed. Check with your doctor or pharmacist before you start taking any new drugs.

The **drinking of alcohol** (in small amounts) does not appear to affect the safety or usefulness of carmustine.

Carmustine may cause **sterility** in men and **menopause** in women. If you plan to have children, discuss this with your doctor before being treated with carmustine.

Carmustine may damage sperm and may harm the baby if used during pregnancy. It is best to use **birth control** while being treated with carmustine. Tell your doctor right away if you or your partner becomes pregnant. Do not breast feed during treatment.

Tell doctors or dentists that you are being treated with carmustine before you receive any treatment from them.

**Changes in blood counts**
This drug may cause temporary changes in your blood counts. Your doctor will be following these changes carefully by performing blood tests. Adjustment of your treatment may be needed in certain circumstances.
BLOOD COUNTS

Normal white blood cells protect your body by fighting bacteria (germs) that cause infection. **When white blood cells are low, you are at greater risk of having an infection.**

Normal platelets help your blood to clot normally after an injury (e.g., cut). **When platelets are low, you may be more likely to bruise or bleed.**

MANAGEMENT

To help prevent infection:
- Wash your hands often and always after using the bathroom.
- Avoid crowds and people who are sick.
- Call your doctor **immediately** at the first sign of an infection such as fever (over 100°F or 38°C by an oral thermometer), chills, cough, or burning when you pass urine.

To help prevent bleeding problems:
- Try not to bruise, cut, or burn yourself.
- Clean your nose by blowing gently. Do not pick your nose.
- Avoid constipation.
- Brush your teeth gently with a soft toothbrush as your gums may bleed more easily.
- Some medications such as ASA (e.g., ASPIRIN®) or ibuprofen (e.g., ADVIL®) may increase your risk of bleeding.
- Do not stop taking any medication that has been prescribed by your doctor (e.g., **ASA for your heart**).
- For minor pain, try acetaminophen (e.g., TYLENOL®) first, but occasional use of ibuprofen may be acceptable.

Some side effects of carmustine injection are listed in the following table in the order in which they may occur. Tips to help manage the side effects are included.

<table>
<thead>
<tr>
<th>SIDE EFFECTS</th>
<th>MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Carmustine burns</strong> if it leaks under the skin.</td>
<td>Tell your nurse or doctor <strong>immediately</strong> if you feel burning, stinging, or any other change while the drug is being given.</td>
</tr>
<tr>
<td><strong>Pain along the vein, dizziness, flushing of the skin and/or eye irritation</strong> may occur during administration of carmustine. This can begin within 2 hours of receiving carmustine and may last for 4 hours.</td>
<td>Tell your nurse or doctor <strong>immediately</strong>.</td>
</tr>
<tr>
<td><strong>Pain or tenderness</strong> may occur where the needle was placed.</td>
<td>Apply cool compresses or soak in cool water for 15-20 minutes several times a day.</td>
</tr>
</tbody>
</table>
SIDE EFFECTS | MANAGEMENT
---|---
**Nausea and vomiting** may occur after your treatment and may last for 4-6 hours. | You will be given a prescription for antinausea drug(s) to take before your chemotherapy treatment and/or at home. *It is easier to prevent nausea than treat it once it has occurred*, so follow closely the directions for the antinausea prescription.
- Drink plenty of fluids.
- Eat and drink often in small amounts.
- Try the ideas in *Food Choices to Manage Constipation.*

**Hair loss is rare** with carmustine. Your hair will grow back once you stop treatment with carmustine. Colour and texture may change. | • Use a gentle shampoo and soft brush.
• Care should be taken with use of hair spray, bleaches, dyes, and perms.

*Please ask your chemotherapy nurse or pharmacist for a copy.

**SEE YOUR DOCTOR OR GET EMERGENCY HELP IMMEDIATELY IF YOU HAVE:**
- Signs of **lung problems** such as shortness of breath, wheezing, or coughing.
- Signs of an **infection** such as fever (over 100°F or 38°C by an oral thermometer), shaking chills; cough, severe sore throat, productive cough (coughing up thick or green sputum); cloudy or foul smelling urine; painful, tender, or swollen red skin wounds or sores.
- Signs of **bleeding problems** such as black, tarry stools; blood in urine; pinpoint red spots on skin; extensive bruising.

**SEE YOUR DOCTOR AS SOON AS POSSIBLE (DURING OFFICE HOURS) IF YOU HAVE:**
- Signs of **liver problems** such as yellow eyes or skin, white or clay-coloured stools.
- Signs of **kidney problems** such as lower back or side pain, swelling of feet or lower legs.
- Signs of **anemia** such as unusual tiredness or weakness.
- **Changes in eyesight.**
- **Dizziness,** or **trouble walking.**

**CHECK WITH YOUR DOCTOR IF ANY OF THE FOLLOWING CONTINUE OR BOTHER YOU:**
- Uncontrolled nausea or vomiting.
- Weight loss, diarrhea, or constipation.
- Easy bruising or minor bleeding.
- Pain or headache not controlled with acetaminophen (TYLENOL®).
- Redness, swelling, pain, or sores where the needle was placed.
- Redness, swelling, pain, or sores on your lips, tongue, mouth, or throat.
REPORT ADDITIONAL PROBLEMS TO YOUR DOCTOR