Low Platelet Count (Thrombocytopenia)

Thrombocytopenia is a low level of platelets. Radiation therapy, certain chemotherapy medications and some cancers themselves can damage platelets and lead to thrombocytopenia. Patients receiving a combination of radiation therapy and chemotherapy are at greater risk for thrombocytopenia.

Platelets play an important role in blood clotting, so thrombocytopenia puts you at higher risk of bleeding. Therefore, while you are receiving therapy, use caution to avoid any activities that could result in bleeding. Even the most minor of injuries, such as a small cut or bump, can result in excessive bleeding when your platelets are low.

A normal platelet counts ranges from 150,000 - 400,000 per mm3 of blood (some institutions prefer an upper range of 450,000 per mm3). While receiving chemotherapy or radiation therapy, your platelet count may drop. Your platelet count will be checked throughout the course of your treatments. Any time your platelet count drops below 50,000 per mm3 you are considered to be at increased risk for bleeding. If your platelet count drops below 10,000 per mm3, you may require a transfusion of platelets.

What can I do to prevent bleeding?

Since platelets are at times destroyed as a side effect of radiation therapy and chemotherapy, there is nothing specifically that you can do to prevent thrombocytopenia from occurring. There are several things that you can do to reduce your risk of injury when your platelets are low:

Taking prompt action at the first signs of a low platelet count is essential as it may help to prevent a bleeding episode. The signs and symptoms of a low platelet count include:

- Excessive bruising of your skin
- Tiny, pinpoint red spots on your skin called petechiae
- Bleeding gums
- Nosebleeds that will not stop
- Excessive bleeding from a small cut, or bleeding that won't stop even after pressure has been applied
- Dark colored urine or blood in your urine
- Blood from your rectum, blood in your stool or black colored stool
- Menstrual bleeding that is heavier than usual, lasts longer than usual or occurs between periods

What can I do to reduce bleeding if I develop thrombocytopenia?

- Keep your mouth clean and moist.
- Brush your teeth gently with a soft bristle toothbrush. If you cannot use a toothbrush, use a sponge toothette to clean your teeth and gums.
- Rinse your mouth after each meal with a baking soda solution (2 tsp. baking soda to 8 oz. water).
- Do not use dental floss.
- Avoid any commercial mouthwashes that contain alcohol. Alcohol can dry out your mouth, which may lead to bleeding.
- Use petroleum jelly or other lip balms to keep your lips moist and to prevent cracking.
- Take sips of water or juice frequently if your tongue or mouth feel dry.
- Modify feminine hygiene practices:
  - Use sanitary napkins rather than tampons during menstruation.
  - Avoid vaginal douching.
Take these other general precautions:

- Do not cough forcefully or harshly. If you have a persistent cough, notify your doctor or nurse who may recommend a cough syrup.
- Do not blow your nose too hard.
- Avoid straining too much with bowel movements. If you have a problem with constipation, take a stool softener or laxative to make it easier.
- Do not use rectal thermometers, suppositories or enemas.
- Use an electric razor for shaving.
- Do not have any dental work or cleaning before talking to your oncologist.
- Do not take any medications that affect blood clotting.
- Do not use rectal thermometers, suppositories or enemas.
- Do not take aspirin or any product that contains aspirin. Check the labels of all drugs you are taking for salicylic acid, the chemical name for aspirin. If you are not sure about a drug or cannot tell by reading the label, check with your oncologist, nurse or a pharmacist.
- Do not take aspirin (salicylic acid) or any product that contains aspirin, non-steroidal, anti-inflammatory medications (NSAIDs) such as Motrin/Advil (ibuprofen), Aleve (naproxen), Celebrex (celecoxib) etc. as these can all increase the risk of bleeding.

Adjust your lifestyle to minimize the risk of bleeding.

- Avoid strenuous activity and lifting heavy objects.
- Avoid sports and activities that could result in falling and/or injury including but not necessarily limited to bicycling, roller-blading, skating and skiing.
- Drink 8 to 10, 8-ounce glasses of non-alcoholic fluid a day to keep your mouth moist, avoid constipation and keep the intestinal lining in good condition.
- Wear shoes or slippers at all times to protect your feet.
- Do not wear tight-fitting clothing.
- Consult with your doctor or nurse on the safety of sexual activity as it relates to your low platelet count. Talk with your healthcare providers if you have specific sexual practices that you are concerned about. They may say you should not have intercourse, as vaginal or anal penetration (including toys/props) or oral sex can pose a risk of bleeding. Use a water-based lubricant and avoid vigorous thrusting during sexual intercourse, if intercourse is permitted by your healthcare provider.

What if I start to bleed?

Even if you have taken special precautions to decrease the chance of injury and bleeding, it is still possible that bleeding will occur. If bleeding occurs, apply firm pressure for 5 minutes to the area. If bleeding does not stop after 5 minutes, continue to apply pressure until it has stopped completely.

If you have a nosebleed, apply pressure with your fingers below the bridge of your nose until the bleeding stops. Keep your head raised.

When should I call my doctor?

Call your doctor immediately if you have any one or more of the following:

- Bleeding that does not stop after you have applied pressure for 10 to 15 minutes.
- Blood in your urine or your urine appears dark in color.
- Blood from your rectum, blood in your stool or your stool is black.
- A change in your vision.
- A persistent headache, blurred vision or a change in your level of consciousness such as a decreased attention span,
excessive sleeping, confusion, and/or difficulty being awakened.

If you have a major injury or start spontaneously bleeding, go immediately to the nearest hospital emergency room. Make sure you inform the doctor that you are receiving cancer therapy and that your platelet count may be low.

**How is thrombocytopenia treated?**

If your platelet count drops to a low enough level that your oncologist is concerned about significant risk of bleeding, they may order transfusions of platelets. These transfusions are most often done in an outpatient treatment center. Unless other problems exist, patients rarely are admitted to the hospital just to receive platelet transfusions.

If necessary, your oncologist may decide to delay further treatments until your platelet count has returned to normal levels.