

Exercise and Blood Value Precautions

Platelets are important for blood clotting. Your platelet count must be greater than 20,000 to do any type of strenuous cardiovascular exercise (power walking, running, cycling, dancing, etc.) or strength training with weights (cuff weights, dumbbells, machines, and elastic tubing). If your platelet count is consistently below 100,000, you need to check your blood counts prior to exercise to know whether or not you can do strength training and/or cardiovascular exercise. If your platelet count is less than 20,000, you may have an increased risk of bleeding with certain types of exercise that could become serious and even life threatening.

- **Platelet Count 50,000 – 100,000:** cardiovascular exercise and strength training with weights are allowed. If you have any signs of bleeding (i.e. from the nose), you should **NOT** exercise and you must notify your physician or care team, even if your platelets are in this range.
- **Platelet Count 20,000 – 49,999:** strength training with weights and cardiovascular exercise are ok if you have no signs of bleeding, but both must be performed without strain, such as holding your breath. Strain during any type of exercise can spike your blood pressure and increase your risk for a stroke or major bleed. Massage at platelet counts below 50,000 should be discussed on a case-by-case basis with your physician. Gentle comfort massage is allowed, if the skin is not fragile or prone to easy bruising for other reasons (such as chronic steroid medications) but deep tissue massage is **NOT** allowed.
- **Platelet count 10,000 – 19,999:** strength training **WITHOUT** weights (machines, dumbbells, or elastic tubing) or strain, and cardiovascular exercise **WITHOUT** strain, are both ok when you are steady on your feet and have no sign of bleeding.
- **Platelet count less than 10,000:** **NO** strength training or cardiovascular exercise until your platelet count is in a safe range for exercise. Walking around your room, to the bathroom, and with assistance from a caregiver are ok as long as you are steady on your feet and have no sign of bleeding.

Hematocrit (Hct)/Hemoglobin (Hgb) are lab values that reflect the level of red blood cells within your blood. Red blood cells carry oxygen around to your tissues. If your red cell number and oxygen-carrying capacity (Hct and Hgb) are too low and you exercise anyway, you are diverting needed oxygen from your vital organs to your muscles, which may cause micro-damage to your organs. When your Hct or Hgb are too low, you are not allowed to perform strength training or cardiovascular exercise until you've had a red blood cell transfusion and we are sure that your red cell numbers have improved to the safe range. It's always difficult to anticipate how much a transfusion will increase the level of Hct and Hgb – a follow-up blood count is the only way to know for sure.

- If your hematocrit is less than 25% or your hemoglobin is less than 8.0, consultation with your doctor or a physical or occupational therapist is necessary to determine safe exercise options.