



Preparing for Surgery

In preparing for surgery, it is important to be screened for anemia at least 4-6 weeks before your surgery. If you have too few red blood cells, you are anemic. Too few red blood cells decrease your blood's ability to carry oxygen to the body's tissues. This causes an increase in the heart and breathing rates in an effort to pump more blood to the tissues. Testing for anemia is done by having a complete blood count (CBC) or a hemoglobin and hematocrit (Hgb & Hct). Your hemoglobin lets you know if your body is making enough red blood cells.

It is important to know if you have anemia before surgery because you will lose some blood during and/or after your surgery. Anemia can affect how you respond to your surgery and how quickly you recover. Anemia if not properly treated, can also affect the functioning of your heart, lungs, kidneys, and brain. In addition, patients who are anemic before surgery are more likely to need a blood transfusion if they lose blood during surgery.

Anemia is present in 35-56% of patients going to surgery (depending on the type of problem they are having surgery for and their overall health). After surgery, anemia is even more common, affecting 90% of patients.

What should my Hemoglobin be?

Female: 12-16 g/dL Male: 13.5-18 g/dL

To reduce your risk for a blood transfusion, your target hemoglobin should be above 13.5 g/dL. The average drop in hemoglobin is 3-4 g/dL for a knee replacement and 4-5 g/dL for a hip replacement.

How can I improve my Hemoglobin?

The recommended treatment plan for building your blood count ideally starts 4-6 weeks before surgery. You need to start taking:

- **Iron** (325 mg by mouth per day) is a mineral needed to form red blood
- **Vitamin C** (500 mg by mouth taken with the iron) helps with the absorption of iron
- **Folic Acid** (1-2 mg by mouth, prescription needed for this amount) helps to stimulate red blood cell production
- **Vitamin B12** (1000 mcg by mouth daily) helps to stimulate red blood cell production

If needed, your doctor may order iron to be given IV and/or a drug called Epoietin alfa (Procrit) by injection to help increase your red count.

