Understanding Blood Transfusion and The Zimmer OrthoPAT® System

Know Your Options

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What is a Blood Transfusion?

Blood transfusion is the delivery of blood to a person from an outside source. Most blood transfusions are made up of red blood cells. Red blood cells carry oxygen from the lungs to the tissues of your body. Too few red blood cells cause you to feel tired and make even minor exertion very difficult. Red blood cells are given to you to increase oxygen delivery to tissue, accelerate recovery and increase your energy.

The OrthoPAT System and Understanding Blood Transfusion

This brochure has been developed to help explain options that are available should you or your loved one require a blood transfusion during surgical treatment. By knowing your options and asking the right questions, you will better understand the risks and benefits of blood transfusions and make informed decisions with your doctor about treatment alternatives.

Why Would I Need a Blood Transfusion?

Surgeons today make every effort to avoid blood loss during surgery. However, in major surgical procedures blood loss may occur anyway.

If enough blood is lost, it may be necessary to replace blood in order to assist in your recovery.
When is Blood Transfused?

Blood can be transfused during surgery, in the recovery room immediately after surgery, or even days later. The decision to transfuse is made by you and your surgeon according to your medical condition.

Is Blood from a Blood Bank Safe?

Most blood for transfusion is collected from volunteer blood donors and stored in blood banks until required for patient treatment. Donors are carefully screened; only a person with a clean bill of health is allowed to give blood. In addition, donated blood goes through extensive testing for various infectious diseases including HIV and other viral diseases.

While the blood supply has never been safer, blood transfusions are not risk-free. Rigorous screening and testing procedures have dramatically reduced – but not eliminated – the risk of transmitting disease through blood transfusion. Other risks include bacterial contamination of the stored blood product, reaction to the donor blood, and transfusion errors.

When it is medically necessary, it is better to get a blood transfusion rather than not. However, most patients and doctors prefer to avoid donor blood transfusions when it is reasonable to do so.
What Can I Do to Avoid Needing a Blood Transfusion from the Blood Bank?

The primary alternative to blood transfusions from the blood bank is a blood transfusion from yourself. This is called autologous transfusion. Using your own blood for transfusion eliminates the risk of transmitting disease or getting blood that doesn't match your own.

Both of these methods reduce your chances of needing blood from a volunteer blood donor. However, there is always some risk that you may need more blood than either of these methods can provide.

What is Preoperative Autologous Donation?

Preoperative Autologous Donation (PAD), or pre-donation, requires you to donate one or more units of blood prior to surgery. Blood donations are made at the hospital blood bank, or at a local community blood center.

Your blood is labeled, stored for your use and delivered to the hospital on the day of your surgery.

There are two ways to provide your own blood for transfusion:

**Pre-donation**
Donating blood for yourself before your surgery and storing it in the blood bank for your use.

**Blood Recovery**
The blood you lose during and after surgery is collected, cleaned and returned to you when you need it.
Not all patients are eligible to take advantage of a pre-donation program. You must be in relatively good health to pre-donate blood. Because blood has a limited storage life of about six weeks, your blood donation(s) must be scheduled within six weeks of the surgery. Your doctor is able to determine if you meet the requirements for this type of donation. If pre-donation is determined to be an option, your doctor may prescribe drugs or supplements to increase your supply of red blood cells in order to improve your ability to tolerate blood donation.

**What is Blood Recovery?**

Blood Recovery, also known as autotransfusion, is the practice of collecting your blood lost during surgery and processing that blood to give back to you. It’s easy and it’s safe.

Blood lost during and after your operation is collected into a plastic reservoir. Because the collected blood is mixed with tissue, irrigating solutions, and other undesirable materials, a machine is used to separate and wash the red blood cells prior to transfusion.

This machine is called the OrthoPAT Orthopedic Perioperative Autotransfusion System. The OrthoPAT System collects blood lost during surgery and washes it with a sterile saline solution prior to transfusion. The system can also be used to recover blood from the wound after surgery. It washes this blood as well.
Is Blood Recovery Right for You?

Blood recovery is appropriate for patients who might lose enough blood during and after surgery to require a red blood cell transfusion. It is appropriate for patients who prefer to receive their own blood rather than donated blood from the blood bank. It is also appropriate for patients whose religious beliefs or medical condition make it difficult to use donor blood transfusion.

Ultimately You and Your Doctor Must Decide Together Whether or Not Blood Recovery is Right For You.

Blood transfusions are a critical part of everyday medical procedures and save millions of lives each year. Should you or your loved one require a blood transfusion, talk with your doctor about the options available to you.