

What are my transfusion options?

- Allogenic Blood (donation by a volunteer blood donor)

Red Blood Cells (RBCs) - transport oxygen from the lungs to body cells

Platelets - prevent blood loss by stopping bleeding at the site of an injury

Plasma - clear liquid part of the blood made of water, ions, sugar, hormones and proteins that help blood to clot

Cryoprecipitate - a concentration of clotting factors taken from plasma

- Directed Donations is one in which an individual donates blood for a specific recipient who is expected to require a transfusion for a scheduled surgery or other medical condition. In Canada this option is almost exclusively reserved for newborns

- Autologous Blood (your own blood)

Hemodilution - removal of a specific amount of your blood lost during surgery, replaced with intravenous (IV) fluids, and returned after surgery

Intra-operative Blood Salvaging- process of collecting blood lost during surgery, washing, filtering and re-infusion of red blood cells

Predonation - donating your own blood prior to surgery. This can be done within 35 - 42 days prior to surgery and no closer to surgery than 7 days

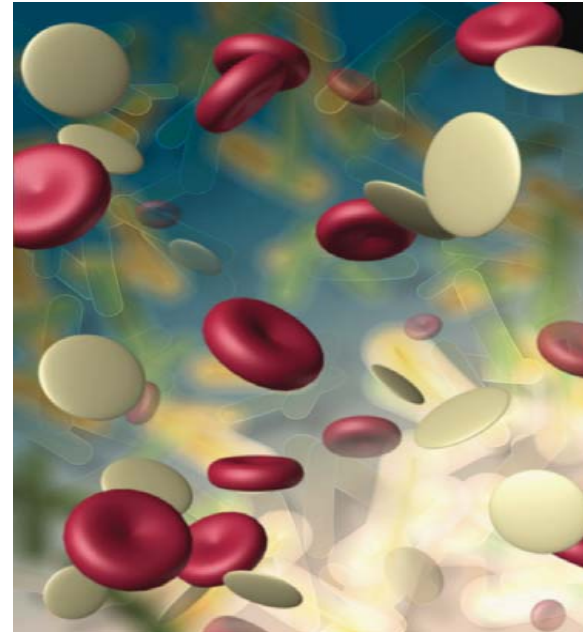
BLOOD MANAGEMENT PROGRAMS

A blood management program uses a team approach to assess a patient's blood management needs. The goal of the team is to develop a plan of care that uses the latest drugs, technology and techniques to decrease blood loss and to enhance an individual's own blood supply. This approach reduces or eliminates the need for a blood

The Society for the Advancement of Blood Management® encourages all individuals to become informed and educated in the management of their blood by contacting

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A Patient's Guide to Blood Management/Conservation Options

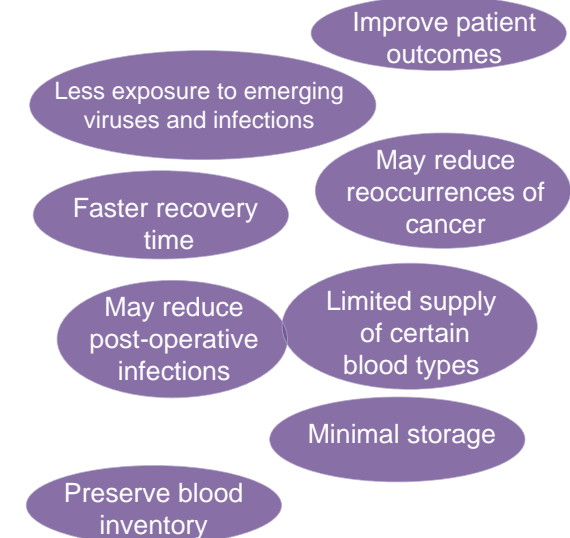


- **What is blood management/conservation?**
- **Why is blood management/conservation necessary?**
- **When would my doctor recommend a blood transfusion?**
- **What are my transfusion options?**
- **What if my doctor says I am anemic?**

What is blood management?

Blood management is the appropriate provision and use of blood and blood products, and strategies to reduce or avoid the need for a blood transfusion to improve patient outcomes.

Why is blood management necessary?

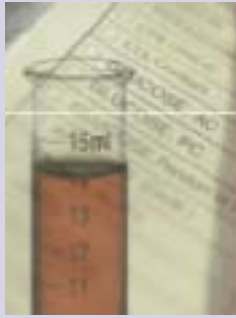


When would my doctor recommend a blood transfusion?

A blood transfusion may be necessary when the body cannot produce blood quickly enough due to:

- Hemorrhage (blood loss) caused by trauma or high blood loss surgery
- Red cell anemia is associated with a variety of medical conditions
- Decreased red cell production because of medications, chemotherapy, serious illness

The Role of Blood in Your Body



Your red blood cells bring oxygen to your organs and tissues. Oxygen is carried and released by hemoglobin (Hgb), a protein present in red blood cells. A below normal hemoglobin level is called anemia.

Know your Blood Count

Your doctor can test your blood to determine your hemoglobin level.

NORMAL HEMOGLOBIN RANGES

Male: 140 - 170 g/dL Female 120 - 160 g/dL

Your hemoglobin level tells your doctor if your body is making enough red blood cells.

My doctor says I am **anemic**. What happens next?

- Tests to find the cause of anemia
- Blood tests to determine iron levels
- Get information about increasing your blood count with:
 - Iron therapy
 - B12
 - Folic Acid
 - Vitamin C
 - Erythropietin

Strategies to minimize Blood Loss and Enhance Blood Production

A combination of these strategies may be used.

Check your blood count early! Have a complete blood count (CBC) taken!

If you are anemic, the following medications may be used to raise your blood count:

Before Surgery

Synthetic Erythropietin - a hormone that stimulates production of red blood cells in your bone marrow

Iron Therapy (oral) - a mineral essential for the formation of red blood cells

B12, Folic Acid, Vitamin C - vitamins necessary for red blood cell production

Nutritional Support - a diet rich in iron

During Surgery

Intra-operative Blood Salvaging - process of collecting your blood lost during surgery, washing, filtering and re-infusion of red blood cells

Volume Expanders - Intravenous fluids made with water, salts, sugars or starches that help maintain the correct amount of fluid in the blood vessels

- Crystalloids - normal saline, lactated Ringer's solution

- Colloids - albumin, hetastarch

Hemostatic Drug Therapy - medications that assist with the clotting functions of blood

Hemodilution - removal of a specific amount of blood during surgery, replaced with intravenous (IV) fluids, and returned after surgery

Meticulous Surgical Techniques - using surgical instruments that prevent or minimize blood loss

Minimally Invasive Surgery - allows surgical repair through small incisions (for example laparoscopic surgery)

Electrocautery - cauterizes tissue using electric current to reduce or stop bleeding

After Surgery

- Minimal Blood Draws
- Postoperative Blood Salvage - process of collecting blood lost after surgery, washing, filtering and re-infusion of red blood cells back to the patient
- Nutritional Support
- Iron therapy

It is recommended that you discuss these strategies with your physician



Questions to Review with Your Physician or Surgeon

- Will I need a blood transfusion? If so why?

- What are the risks if I choose to minimize or avoid blood transfusions?

- What else do I need to do to prepare myself for surgery?

- Will I need to increase my blood count for this surgery?

- What are the risks involved with blood transfusions?

- If I do need a blood transfusion, how will it affect my recovery time?

- If my blood count level is low after surgery, how will it affect my ability to resume normal activity?
