

What are the alternatives to Blood Transfusion?

Blood product transfusion may be decreased or avoided by careful planning. The health care strategies and technologies that are available today are explained in this brochure. Several strategies may be used together to provide the best possible patient care. This is called **blood conservation**.

The blood conservation plan is specific for you. The plan depends on your general health and the kind of operation you are having.

The use of blood conservation strategies does not rule out the possibility of volunteer donor blood transfusion. If blood loss during or after an operation leads to a health or life threatening situation, volunteer donor blood transfusion may be needed.

1 Red Blood cell level ... is it within normal values?

Research has shown that the red blood cell level before an operation is one of the major factors affecting whether or not a transfusion will be likely. The doctor will check your red blood cell level before an operation. You may be asked to have more tests if the level is too low or too high. Iron or vitamin supplements may be prescribed or advice about dietary

changes may be given if the red blood cell level is low. In some situations, a medication called erythropoietin may be prescribed to increase the body's own production of red blood cells.

You should tell the doctor about any prescription or over the counter medications you take on a regular basis. Some medications may effect blood clotting. The doctor will tell you if you need to stop taking or change your medication before an operation.

2 Autologous donation ... can I donate my own Blood?

When you are having a planned operation, it may be possible to donate your own blood. Blood transfusion is not needed for all operations. Autologous donations are not taken if it is unlikely that blood transfusion will be needed. The possibility of autologous donation also depends on your general health and red blood cell level.

If it is appropriate, you can be referred to Canadian Blood Services. There your blood can be tested, collected and stored until it may be needed during or after the operation.

3 Directed donations ... can family or friends donate their Blood for me?

Directed donations are situations where a specific donor's blood is collected for a specific patient.

In Canada, this program is limited to a parent or legal guardian donating for their child (up to 17 years of age). Directed blood donations have not been shown to have fewer risks than donations from healthy volunteers in the community.

4 Blood substitutes ... can I have "man made" Blood products?

At this time, "man made" blood substitutes are not being used for red blood cell or platelet transfusion. In some bleeding conditions (like Hemophilia), "man made" clotting factors are given to patients.

Sometimes, intravenous fluids as well as Pentaspan (a starch solution) can be given to you instead of a blood transfusion. These solutions increase the amount of fluid in the arteries and veins. In specific cases, with only a small amount of bleeding, giving these solutions will allow the operation to be completed without a transfusion. Over time, during the recovery period, the body will produce more red blood cells on its own.