

APHERESIS DONOR INFORMATION SHEET

Thank you for volunteering to become an Apheresis Donor. This sheet is intended to inform you about the reasons for apheresis Donation, the practical procedures involved and the potential risks of undergoing apheresis. After reading this sheet, we will ask you to sign a consent form to undergo this procedure for the first time.

WHAT ARE THE ADVANTAGES OF APHERESIS DONATION?

As a blood donor you will be aware that you normally donate about 450mls of whole blood at each donation. You may also be aware that, **after** donation, each unit is separated into the various components of blood, including:

- red blood cells, which carry oxygen around the body
- platelet cells, which help the blood to clot; and
- plasma, the liquid part of blood which contains all of the clotting, immune and other proteins.

Each of these components is used separately to treat patients with a variety of disorders and much of the plasma collected is sent to Australia for manufacture into blood products for New Zealand patients.

The amount of blood that can be donated is limited by the loss of red blood cells because donors become anaemic if we remove too much blood. Plasma and platelets lost by blood donation are much more easily replaced by the donor than red blood cells and much larger quantities of these components can be donated safely if the red blood cells can be returned to the donor. This is what happens in an apheresis donation.

HOW DOES APHERESIS WORK?

Blood is removed from a vein and mixed with a substance called citrate to stop it clotting while in the blood collection set. It is then processed in the collection set to separate the red blood cells from the plasma and platelets. The components that are required are kept in the collection set and the red blood cells are returned to the donor. This process allows 2-3 times the usual volume of plasma and up to 12 times the usual number of platelets to be removed at a single donation, without making the donor anaemic.

WHAT ARE THE POSSIBLE PROBLEMS OR RISKS OF APHERESIS DONATION?

- Some of the minor problems seen occasionally in normal donations may also occur from time to time with apheresis donations. Many of these relate to the use of a needle to puncture the vein of the donor and include pain, bruising, infection or minor damage to the nerves in the skin. Dizziness and fainting can also occur occasionally. These potential problems are no more common, and some may be less common with apheresis donations, than with ordinary whole blood donations.
- Apheresis donations take longer than normal donations and usually require:
 - 1-2 hours for platelet apheresis
 - 35-45 minutes for plasmapheresis
- Tingling in the fingers and around the mouth can occur when the red blood cells are returned to the donor. This is due to the infusion of citrate (which is mixed with the blood in the collection set to prevent clotting) with the red blood cells. Citrate is used as a fuel by the body and is rapidly removed from the blood stream, making this a very brief phenomenon. It can generally be overcome by slowing the rate of return of the red blood cells or by having a drink containing calcium.

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- Despite the use of citrate, it is possible that the blood may clot while out of the body, preventing its return. However, this is very uncommon and the volume of blood that can be lost in this way is no more than that of a normal whole blood donation.
- Rare theoretical risks include the possibility that air might be introduced into the donor's blood stream but modern apheresis machines include alarms to prevent this and donors are monitored very closely during the procedure.
- All the tubing, needles, and bowls used in this process are sterile and disposable. A new blood collection set is used for each donation, avoiding any problems of contamination.

IS THE DONATION TESTED IN THE USUAL WAY?

The usual tests performed on normal blood donations will be performed, including screening tests for HIV (the AIDS Virus), Hepatitis B, Hepatitis C, HTLV and Syphilis.

Apheresis donors have a number of other monitoring blood tests performed occasionally to ensure that the levels of proteins in their blood and their blood counts remain normal.

Donors will be informed about any significant abnormalities that might be found with these tests.

OTHER IMPORTANT INFORMATION

We will normally conduct a brief physical check up before your first donation to ensure that there are no obvious problems with your health that might lead to difficulties during apheresis donation.

The products collected by apheresis may be used for transfusion to patients; for processing into blood components used by patients; for teaching; or for other laboratory uses.

Should you suffer any adverse effect as a result of undergoing apheresis you will be eligible for compensation in the same way that normal donors are.

If you have any concerns or questions about this procedure you may discuss them at any time with the nurse who will be carrying out the apheresis procedures or with a transfusion medicine specialist.