What is lipoprotein apheresis?

Lipoprotein apheresis is a treatment where the 'bad' lipoproteins:

- LDL cholesterol and
- Lipoprotein(a) - shortened to Lp(a)

are removed from the blood, while only minimally reducing the 'good' HDL cholesterol.

Why do some people need apheresis?

Most people with high LDL levels can be treated using a combination of diet, physical activity and cholesterol-lowering medications.

Some people are intolerant to medications or despite the maximum amount of medications still have high LDL levels or progressive cardiovascular disease. Other people have high levels of Lp(a) as well as progressive cardiovascular disease.

These people can benefit from apheresis, which can dramatically reduce their LDL/Lp(a) levels.

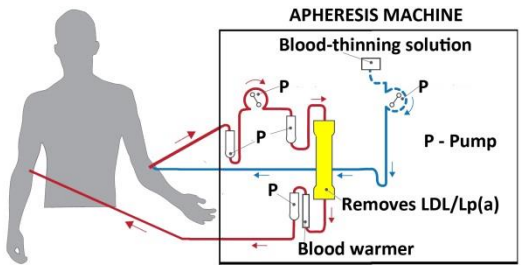
How is apheresis performed?

Apheresis is similar to renal dialysis.

The treatment involves placing a needle into a vein in each arm. One needle removes the blood which is pumped through a machine which absorbs the LDL/Lp(a). The 'cleaned' blood is then returned through the other needle.

The treatment takes 2-4 hours.

The diagram below shows apheresis in detail.



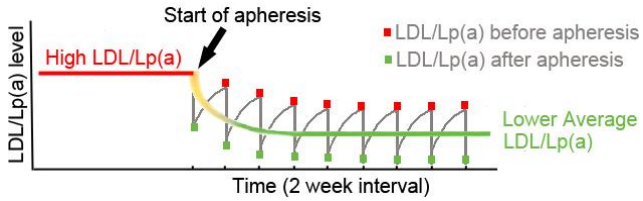
All the parts in the machine that come in contact with your blood are sterile and used only once.

A good blood flow is required. If there are repeated problems with your veins a fistula may be recommended. A fistula is created surgically by connecting an artery to a vein, usually in your arm. The fistula has a wide diameter and allows for increased blood flow and improved access.

How does apheresis affect my LDL/Lp(a) levels?

Apheresis can dramatically reduce your LDL/Lp(a) levels after a single treatment. The amount of blood treated and your original LDL/Lp(a) levels determines the exact reduction.

Although your LDL/Lp(a) levels decrease during apheresis, your liver is continuously producing LDL/Lp(a) and your levels will start to increase immediately after apheresis.



Therefore apheresis must be repeated every week or fortnight to keep your LDL/Lp(a) levels low.

Continuing a heart healthy diet, physical activity and cholesterol-lowering medications can help increase the time between treatments.

Will I have any adverse reactions to apheresis?

Some people experience temporary adverse reactions. These may include:

- light-headedness - this is more likely to happen during the first few treatments
- hypotension (low blood pressure)
- blood loss/discomfort at the needle site
- nausea/vomiting
- headache
- chest pain
- fast or slow heart rate
- abdominal (stomach) discomfort
- tingling in the hands, feet or face
- flushing in the face or upper body

You will have a nurse with you throughout your treatment. **Let them know immediately if you experience any of the above reactions or anything else unusual.**

What can I do to minimise adverse reactions to apheresis?

- Do not drink alcohol during the 24 hours before your treatment.
- Apheresis may lower your blood pressure so it is important you do not take ANY blood pressure lowering medications on the day of your treatment. Continue your medications as normal the following day.
- Do not perform strenuous physical activity on the day of your treatment.

- Have a light meal before treatment. You may also eat and drink during the treatment.
- After your treatment you will probably feel tired and need to rest for the remainder of the day. You may also feel tired the next day.
- Avoid activities that increase the risk of physical injury for 24 hours after your treatment due to the blood-thinning solution used.

Other points

- ACE inhibitor medications cannot be taken by people undergoing apheresis as they can react with substances in the apheresis machine.

Examples of ACE inhibitors are captopril, enalapril, fosinopril, lisinopril, perindopril, quinapril, ramipril and trandolapril. If a doctor suggests starting any of these medications ask them to contact your apheresis unit.

- Make sure your apheresis doctors and nurses are aware of ALL the medications you are taking including any supplements.
- You may develop anaemia or another deficiency and may need to take a supplement.

Also

- Bring someone with you or arrange to be picked up as you may feel unwell after the treatment and should not drive.
- Wear loose fitting, comfortable clothing with short sleeves.
- Bring a book/magazine/music or something to pass the time.
- Go to the toilet before the treatment starts.

Early Diagnosis Early Treatment Saves Hearts

This brochure gives you general information on lipoprotein apheresis. It does not replace the need for personal advice from the doctors and nurses at your apheresis unit.

Contact details of your apheresis unit:

FH Australasia Network

everyone deserves a better chance

FH Australasia Network

- Email: fhwa@health.wa.gov.au
- Website: http://www.athero.org.au/fh
- Facebook:https://www.facebook.com/FHAustralasiaNetworkandSupportGroup
- Twitter: https://twitter.com/FHAustralasia

Lipoprotein Apheresis

Familial Hypercholesterolaemia