



A lifetime of specialist care

Royal Brompton & Harefield **NHS**
NHS Foundation Trust

Harefield Hospital

Information about lipoprotein apheresis





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This leaflet gives you general information on lipoprotein apheresis. It does not replace the need for personal advice from a qualified healthcare professional. Please ask us if you have any questions.

LDL cholesterol and HDL cholesterol

Cholesterol is carried around the body by proteins. These combinations of cholesterol and proteins are called lipoproteins.

There are two main types of lipoproteins:

- LDL (low-density lipoprotein) – the harmful type of cholesterol

- HDL (high-density lipoprotein) – the protective type of cholesterol

Having too much harmful cholesterol in your blood can increase your risk of getting cardiovascular disease. The risk is particularly high if you have a high level of LDL cholesterol and a low level of HDL cholesterol.

What is lipoprotein apheresis?

Lipoprotein apheresis is a method of removing LDL cholesterol and other fats (lipoprotein and triglycerides) from the blood. Treatment causes just a small drop in the HDL level.

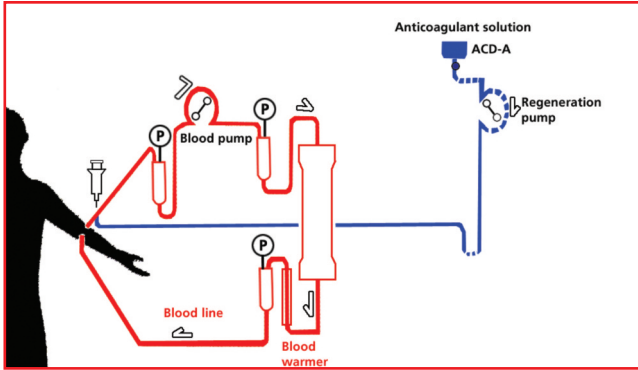
Lipoprotein apheresis is considered for those patients who have tried drug treatment and a low cholesterol diet, but still have a high LDL cholesterol level.

What happens during the treatment?

Lipoprotein apheresis is very similar to kidney dialysis. The treatment involves placing two needles (cannulae) into your veins – one to remove the blood and the other to return the treated blood to you. Lipoprotein apheresis circulates a portion of the blood through a machine

outside the body. This removes the LDL cholesterol and then returns the treated blood back to your body.

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



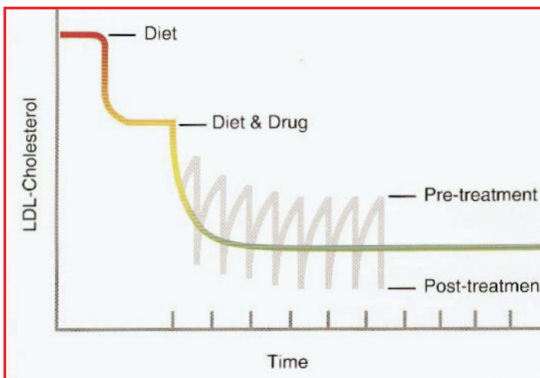
The diagram shows how lipoprotein apheresis is performed.

What are the benefits?

Lipoprotein apheresis can lower your LDL level by 50 to 65 per cent after a single treatment, depending on the amount of blood treated and your original LDL level.

However, the treatment does not correct the underlying problem that causes high levels of LDL cholesterol. Your LDL level will start to increase

again soon after the treatment. In order to keep a lower level of LDL cholesterol, you will need to have the treatment once every two weeks or sometimes once every week. Lipoprotein apheresis is a lifelong treatment and it is important that you continue on a low fat diet and take all your cholesterol medication.



The diagram shows how a combination of diet, medication and treatment lower LDL cholesterol.

What are the risks and possible side effects?

If we experience problems with the blood flow from the veins in your arms, we may suggest the following:

- Forming a shunt in your arm (connecting a vein and artery to increase blood flow), similar to those used in kidney dialysis.
- Placement of a permanent cannula in your chest.

If you need either of these, we will discuss both options with you in more detail.

We use heparin or another anticoagulant solution, called ACD-A, to thin your blood before it circulates through the machine. The type of bloodthinning medication will depend on the type of machine we use. ACD-A may sometimes cause a temporary drop in the level of calcium in your blood. To help prevent this, we will give you calcium tablets to take each time you come in for your treatment.

A small number of patients may experience one or more of the following temporary side effects:

- Light-headedness (this is more likely to happen during the first few treatments)
- Hypotension (low blood pressure)
- Nausea (feeling sick)
- Headache
- Anaemia (blood contains too few red blood cells)
- Chest pain
- Fast or slow heart rate
- Abdominal (stomach) discomfort
- Blood loss
- Feeling tired and a little irritable the day after treatment

Two to three nurses will look after you during the treatment. They will be able to help you with any problems or side effects.



How can I reduce the risk of getting side effects?

Please do not take any beta blocking tablets (such as atenolol, propranolol, metoprolol, and bisoprolol) or any other medication to lower your blood pressure on the day of the treatment. You should continue with your medication as normal the day after your treatment.

If you develop anaemia, you may need to have an iron supplement.

ACE inhibitor medication (such as ramipril, lisinopril and perindopril) may interfere with some of the machines used for lipoprotein apheresis. If your doctor suggests starting any of these medications, please ask him or her to contact us.

Please eat and drink something before you start the treatment. You may eat and drink during the procedure.

It is important that you do not drink alcohol during the 24 hours before your treatment.

Please avoid exercise on the day of your treatment. You should also try to avoid activities that may increase the risk of physical injury for 24 hours after your treatment due to the bloodthinning medication used.

You can further reduce the risk of side effects if you rest for the remainder of the day after your treatment.

Useful contacts

The apheresis unit:

01895 826 563

Alison Pottle, nurse consultant
in cardiology

01895 823 737
and ask for **bleep 6137**

If you have concerns about any aspect of the service you have received in hospital and feel unable to talk to those people responsible for your care, call PALS on 01895 826 572 or email pals@rbht.nhs.uk. This is a confidential service.

Royal Brompton Hospital
Sydney Street
London
SW3 6NP
tel: 020 7352 8121
textphone: (18001) 020 7352 8121

Harefield Hospital
Hill End Road
Harefield
Middlesex
UB9 6JH
tel: 01895 823 737
textphone: (18001) 01895 823 737

Website: www.rbht.nhs.uk

إذا كنت ترغب في الحصول على ترجمة فورية لمضمون هذه الوثيقة إلى اللغة العربية، يرجى منك الاتصال بأحد مستخدمينا بجناح المصلحة التي يتم فيها استشفائك. أحد موظفينا سيسعى لترتيب إجراءات الترجمة وإتمامها في الوقت المناسب لك.

Brosurteki bilginin Türkçe tercemesi için tedavi görüyor olduğunuz bölüme bas vurunuz. Bölüm personeli tercemenin gerçekleşmesini en kısa zamanda ayarlayacaktır.

