

Plasma exchange

This leaflet explains more about plasma exchange, including the benefits, risks, alternatives and what you can expect when you come to hospital.

If you have any further questions, please speak to a doctor or nurse caring for you.

What is plasma exchange?

Plasma is the straw coloured fluid that contains your red and white blood cells, platelets, proteins and nutrients.

Plasma exchange involves separating and removing plasma from the blood. This is done by a plasma exchange machine (Optia®). The red blood cells, white blood cells and platelets are returned to you, along with a prescribed replacement fluid.

The replacement fluid will be either Octaplas® (solvent detergent treated plasma) or albumin, both of which come from human donation.

The length of the procedure varies from patient to patient depending on the total volume and type of replacement fluid used, but it usually takes between two and four hours. The procedure will be carried out in the haematology day unit, on an inpatient ward or in the intensive care unit (ITU), according to your clinical needs.

We will need to use the veins in your arms or groin to connect you to the plasma exchange machine. If we use the veins in your arms, we will insert two cannulas (small tubes) into your veins. If it is not possible to get good access to your veins, we may use a central line. This is usually a larger cannula inserted into the femoral vein in your groin area or on the side of your neck.

Why do I need to have plasma exchange?

Plasma exchange is used either because your blood is very thick (viscous) or because we need to remove antibodies or other substances that are making you unwell.

What are the possible side effects of plasma exchange?

Most people tolerate plasma exchange well, but you may experience the following side effects. Everyone is different so you could experience some, all or none of these.

- **Pins and needles** – we use a substance called citrate to stop your blood from clotting in the machine and this can sometimes give you pins and needles around your mouth or in your arms. This is due to a drop in calcium levels. You will be given calcium replacement tablets if you need them.
- **Reaction to the replacement fluids** – for example fever, chills, flushing, rash, shortness of breath, loin pain or anaphylaxis (an acute allergic reaction).
- Problems with the access to your veins.

- Fainting
- Headaches
- Low blood pressure.

All of these side effects can be treated quickly to reduce any discomfort you may experience.

Giving my consent (permission)

We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

If you would like more information about our consent process, please speak to a member of staff caring for you.

What happens before the procedure?

You will need a blood test before each plasma exchange. The results will be reviewed and used to programme the machine.

Before starting the exchange, the nurse looking after you will confirm your consent and explain the side effects to you again.

We would advise that you either wear loose clothes or bring something loose to change into (tracksuit bottoms, for example). If you are wearing a hospital gown, you do not need to get changed.

Before the procedure starts we recommend that you go to the toilet if you are able to. If you cannot or do not want to go to the toilet, you may have to consider using a bed pan or bottle at some stage during the procedure.

You will be able to eat and drink as normal. Some people prefer to sleep during the procedure. You are welcome to bring a friend or relative with you, but as we are a busy unit with limited space, we ask that you do not bring more than one visitor with you.

What happens during plasma exchange?

The procedure will be carried out by a specially trained nurse. Your vital signs (temperature, blood pressure, pulse and oxygen levels) will be checked before, during and after the exchange and any changes will be recorded.

During the procedure, you will be closely monitored for any side effects and the appropriate treatment will be administered to you if need it.

The Optia® machine will automatically take your blood, spin it, collect your plasma into a bag and return fresh plasma or albumin to you, along with your blood cells.

You will be asked to remain on a bed throughout the procedure and to stay fairly still. This is to ensure a smooth flow of blood being removed from your veins and replacement fluid being returned. However, you should be able to sit up on the bed to read, eat or drink while you are connected to the exchange machine. Once the main part of the exchange is complete, the remaining fluids are returned and you will be disconnected from the machine.

What happens after the procedure?

Blood tests will be repeated in case you need any further replacement of calcium or other factors. We will also inform you if you need any treatments to address the side effects of the procedure.

If you are an outpatient and your blood results are ok, your cannula(s) will be removed and you can go home.

If you are an inpatient and there is the possibility that you will need further exchanges, your cannula(s) might stay in to avoid you having to have lots of needles.

What do I need to do after I go home?

Most people feel tired after the procedure. Ideally someone should be with you to take you home and you should not drive that day. Once you are at home, you should try to rest. If you feel unwell, have any bleeding from the area where the line was inserted, or are worried about anything, please feel free to contact the haematology day unit on the numbers listed below.

Contact us

If you have any questions or concerns about plasma exchange, please contact the haematology day unit on **020 7188 7188 ext 82727** (Monday to Friday, 8.30am to 6.00pm). Out of hours, please call the hospital switchboard on 020 7188 7188 and ask for the haematology registrar on call.

You can also call the clinical nurse specialist for apheresis on **020 7188 7188 ext 82727** or **bleep 3039**.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk

t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please get in touch:

t: 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

t: 111

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