

## TREATMENT WITH PLASMA EXCHANGE

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Plasma exchange, also known as blood washing or plasmapheresis. Is used for people with severe types of vasculitis, especially in which significant amounts of antineutrophil cytoplasmic antibodies (ANCAs) or anti-glomerular basement membrane antibodies (Anti-GBM) are present in the blood.

Plasma is a clear yellow fluid which makes up the liquid part of the blood. It is made up mainly of water but also contains the auto antibodies which are harmful to patients with vasculitis. Plasma exchange works by removing the harmful auto antibodies from the plasma and replacing them with healthy fluid. The plasma first has to be separated from the other parts of the blood. Usually the plasma substitute is human albumen solution but occasionally plasma from blood donated to a blood bank is used.

Plasma exchange will help you feel better by reducing the amount of circulating antibodies but it will not do anything to prevent more antibodies from forming, so it is usually only part of the treatment you will receive.

Plasma exchange involves inserting a needle or cannula into a large vein in each arm. This will involve minor discomfort but if you wish a local anaesthetic can be given to numb the area first. The needle in one arm will be attached to a tube that feeds your blood into a machine. A large vein is needed to keep the blood flowing, but only a small amount of blood is processed and replaced at any one time. Occasionally veins in your neck or groin may be used if the veins in the arms are not easy to access. The machine will separate the plasma from the red cells, white cells and platelets that form the rest of your blood and mix them with the replacement plasma substitute. The cleaned blood is then returned to your body through the needle in the other arm.

The plasma exchange will normally be performed whilst you rest comfortably in a bed or reclining chair. It is best to wear loose fitting clothing. You will be treated as an outpatient unless your condition is severe enough to need hospital admission. You may be able to bring a friend or relative with you but you should check with the hospital first. Children are usually not allowed due to the amount of sensitive equipment required.

An anticoagulant (a chemical that thins the blood) is added to the blood in the machine to stop it from clotting. This can cause a number of side effects including a feeling of sickness, tingling of the lips, nose or fingers, a metallic taste in the mouth or a vibrating sensation. This is due to the anticoagulant lowering your calcium level. You may also notice a heavy feeling in the arm from which the blood is removed and a vibrating sensation around the needle. All these side effects are temporary and will go away once the procedure is finished.

The doctor or nurse should check what medicines you are taking before the exchange. You will be able to eat before, after and even during the procedure (although this may be a little difficult when attached to tubes!) The procedure can last two to three hours so take a good book, a Walkman, or some other activity to help you pass the time.