Plasmapheresis
Blood Cleansing

Plasmapheresis is a procedure used to remove different parts of the blood. The removal is called apheresis. It is used to treat a number of different illnesses. Blood is made up of four main parts. These are the red blood cells, white blood cells, platelets, and plasma. The plasma is the liquid part of the blood carrying the proteins and cells. When a part of the blood is abnormal it can be removed by this procedure. Plasmapheresis is an apheresis procedure that removes your plasma. It is then replaced with special fluids or another person's plasma.

Myasthenia gravis (MG) is one example of a condition in which plasmapheresis is used as a treatment. In MG, antibodies present in the plasma may cause interference between the nerves and muscles. This leads to muscle weakness. Removing your plasma and replacing it improves the muscle weakness. By removing plasma and replacing it with a plasma alternate, it is possible to lessen some of the symptoms of muscle weakness. Plasmapheresis is best understood as a constant removal of small amounts of blood. The removed portion or a substitute is then returned with the parts of the blood removed which were causing problems.

Plasmapheresis is also used in the treatment of autoimmune disorders. This allows the rapid removal of disease-causing autoantibodies from the blood while slower medical therapy is beginning to work. Hyperviscosity syndromes are also treated in this way be removing blood proteins which are making the blood too thick to be safe.

Plasmapheresis is not considered as uniform treatment for all patients. You and your caregivers will decide if this is an appropriate and helpful treatment for you.

PRIOR TO AND DURING THE PROCEDURE

- This procedure is usually done as an outpatient but may be dependent on your condition. It is a painless procedure other than the brief needle stick. You may watch television or read a book during the procedure.
- Drink plenty of fluids the day prior to your procedure to help avoid blood pressure drops. Avoid caffeine containing liquids. These are diuretics that cause you to lose fluids. Continue a well-balanced diet during treatments.
- You may continue your regular medications unless directed otherwise. If you are taking pills to lower blood pressure, you may be asked to hold the dose prior to plasmapheresis. Bring all medications to the apheresis unit so that they may be recorded on the chart.
- Using a needle blood is withdrawn from one arm. This blood flows into the apheresis machine. The blood is then separated into its different parts. This allows the antibodies in the plasma to be removed. The remainder of the blood components, red cells, white cells, and platelets are then combined with sterile plasma substitutes. They are then returned through the other arm
- A treatment usually takes two to three hours. Medical help will be with you during treatment to monitor how you are doing. If you feel tingling or numbness in your lips or fingertips, you may report this to the medical staff. This may be caused by the medication used to thin the blood (stop the blood from clotting) while it is in the machine. Tell the medical staff about this if you experience it. This is nothing to worry about. Light-headedness or nausea may come on. This is usually short-lived. Medications can be given to treat this if necessary. Bruising or swelling may happen at the needle puncture site because of the blood thinners given. You can help avoid this by keeping pressure on the site after the needle is removed.
- During the procedure, if bruising or swelling at the needle puncture site occurs, notify the staff.
- After treatment, a cold drink may be offered during a brief resting period to make sure you are doing well.
- Avoid hot foods and beverages for two to three hours after treatment. They enlarge the blood vessels and you may become light-headed. Try to avoid sun and heat, hot showers, and saunas.
- Avoid activities such as shaving and cutting your nails for several hours after treatments. The anticoagulant

used will slow clotting. This makes it easier for you to bleed if you cut or injure your skin.
- A friend or relative should take you home as you may be tired following the procedure.

PROGNOSIS

It may take an average of 3-5 treatments before myasthenia gravis improves. This varies and your caregiver will discuss this with you. How often and how long the treatments will go on varies from patient to patient.

SEEK MEDICAL CARE FOLLOWING THIS PROCEDURE IF:

- You develop bleeding problems.
- You have questions or problems following the procedure which you feel need care.

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