

Therapeutic Procedures

RED CELL THERAPEUTIC PHLEBOTOMY

- Hereditary Hemochromatosis
 - Hereditary Hemochromatosis is a disease resulting in iron overload. Primary Hemochromatosis, also called Hereditary Hemochromatosis, is inherited. Secondary Hereditary Hemochromatosis is caused by anemia, alcoholism, and other disorders.
 - Most people absorb about 10% of the iron contained in the food they eat. People with Hereditary Hemochromatosis absorb up to 30% of this iron. Over time, this increased absorption results in retention of 5 to 20 times more iron than the body needs. Because the body has no natural way to rid itself of excess iron, it is stored in and causes damage to body tissues, specially the liver, heart, and pancreas.
 - The best way to mobilize excess iron out of the tissues, and therefore prevent iron overload, is to regularly phlebotomize the patient/donor. The resulting loss of Red Blood Cells and because each healthy new red blood cell requires iron, iron stores will decrease with each phlebotomy and organ damage can be prevented. *Plus, the phlebotomized Red Blood Cells are normal and are a great addition to blood bank inventories!*
 - In the past, Hereditary Hemochromatosis patients were not accepted as blood donors because it was thought to be a potential conflict of interest for them. They might not tell the truth about their overall health and risk behaviors in order to donate blood for free. However, today the FDA allows us to collect these healthy Red Blood Cells as long as we remove any incentive to the donor being less than totally truthful.
 - LifeStream has implemented a program where patients with Hereditary Hemochromatosis can be phlebotomized at no charge. If these patients are also qualified as donors, the blood collected will be added to routine inventory. Please call Special Services to request this service.
 - For other causes of Erythrocytosis, such as Polycythemia Vera, therapeutic phlebotomy is also available. This procedure is available for a fee.

THERAPEUTIC PROCEDURES continued

THERAPEUTIC APHERESIS SERVICES

- LifeStream uses Apheresis Care Group (ACG) for all Therapeutic procedures. To set up a procedure call 909.386.6829.
- Therapeutic Apheresis (TA) is a medical procedure which removes a specific blood component from the circulation and replaces it with the same blood component taken from healthy donors or with physiologically compatible solutions. During the procedure patient's blood is withdrawn from a vein into an apheresis machine or blood cell separator.
 - Plasmapheresis
 - Plasmapheresis is used in a variety of disorders characterized by disease-causing substances present in the plasma: *Cryoglobulinemia, pemphigus vulgaris, Hyperviscosity syndromes, Thrombotic thrombocytopenic purpura, Acute liver failure, Hypertriglyceridemic pancreatitis, Mushroom poisoning, Sepsis, Thyrotoxicosis, Acute disseminated encephalomyelitis, Guillain-Barre syndrome, Chronic inflammatory demyelinating polyradiculoneuropathy, Lambert-Eaton myasthenic syndrome, Multiple sclerosis, Myasthenia gravis, Paraneoplastic neurologic syndromes, Paraproteinemic polyneuropathies, Stiff-person syndrome, Wegener's granulomatosis, Goodpasture's syndrome, Focal segmental glomerulosclerosis, Hemolytic uremic syndrome, Thrombotic microangiopathy, Rapidly progressive glomerulonephritis, Renal transplantation (antibody mediated rejection, HLA desensitization), ABO incompatible solid organ transplantation, Heart transplant rejection.*
 - Therapeutic Apheresis procedures available:
 - **Therapeutic plasma exchange**
 - The removal of antibodies and immune complexes responsible for causing certain disease processes.
 - **Leukapheresis (leukocytapheresis)**
The removal of white blood cells. Most commonly used to reduce the dangerously high number of cancerous white cells (tumor load) in patients with leukemia.
 - **Erythrocytapheresis**
Removal of red blood cells. Used for severe cases of sickle cell anemia and malaria.
 - **Thrombocytapheresis**
The removal of platelets. Used for patients with excessive number of platelets who are in danger of developing a stroke.
 - **LDL Apheresis**
The specific removal of low density lipoproteins (LDL) from plasma. Used in patients with severe hypercholesterolemia who has failed diet and cholesterol lowering medications.
 - **Photopheresis**
This procedure is also known as extracorporeal photochemotherapy. It separates white blood cells from whole blood (leukapheresis) and exposes these cells to ultraviolet light in the presence of a photoactive agent.