

HATS Apheresis Program

If you have any other questions about the apheresis procedure, side effects, or expected outcomes, please call 410-955-1717

If you have any questions concerning scheduling your appointments or billing issues, please call 410-955-6347.

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Hemapheresis and Transfusion Support

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Therapeutic Plasma Exchange

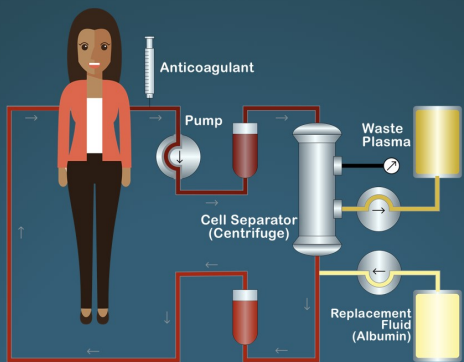
PATIENT EDUCATION



HATS Apheresis Program at
The Johns Hopkins Hospital



TPE Circuit Diagram



A Patient's Guide to Therapeutic Plasma Exchange (TPE)

What is TPE?

Therapeutic Plasma Exchange, also called TPE, is a medical procedure that separates plasma from whole blood to remove plasma bound antibodies. The blood is removed through needles placed in your arm (1 line removing the blood and the 2nd line replacing the blood simultaneously) or through an intravenous catheter. The plasma is replaced with a colloid fluid, typically Albumin, Saline, or Fresh Frozen Plasma (FFP).

Why do I need TPE?

Therapeutic Plasma Exchange is done for various reasons. It is a treatment that removes the plasma portion of your blood that contributes to your illness or disease, such as antibody mediated rejection in an organ transplant and auto-immune disorders such as Multiple Sclerosis (MS), Transverse Myelitis (TM), Thrombotic Thrombocytopenic Purpura (TTP), Neuro Myelitis Optica (NMO), and Myasthenia Gravis (MG).

What Happens During a TPE Procedure?

Step 1: For the procedure, your venous access will be assessed by an Apheresis RN. Patients with adequate veins will have needles placed in each arm. Patients with unsuitable veins will have an implanted port or central venous catheter placed before the procedure.

Step 2: Once access is established, the Apheresis RN will connect you to the apheresis machine. The apheresis machine draws your blood into a cell separator centrifuge that will separate the plasma from the whole blood. The separated plasma is then removed and collected into a waste bag.

Step 3: Replacement fluid (Albumin, saline, or FFP) is added to your red cells and platelets remaining in the machine. The new whole blood is then returned to you.

Step 4: This removal and replacement of your blood is done in an automated and continuous manner to minimize blood loss and to help maintain fluid balance.

Step 5: The procedure typically lasts 1-2 hours. During the procedure, you can take a nap, read, eat, listen to music, watch TV or use your mobile device/ tablet.

Potential Risks and Side Effects?

TPE is a safe procedure, but some side effects may occur. You may have discomfort at the needle site, fatigue, dizziness, lightheadedness, low blood pressure, nausea, vomiting, and bleeding. You may also feel tingling or “pins and needles” sensation in your lips, fingertips, or feet. The most common side effect is feeling cold. Heating pads, blood warmers, and blankets are used to keep you warm and comfortable. It is important to notify the nurse immediately if you start to experience any of these symptoms.

How Can You Prepare for Your Procedure?

1. Bring a complete list of your medications including the drug names, dosages, and the times you take them. You will also need your insurance information and a photo ID.
2. It is helpful to drink plenty of fluids and eat a light meal prior to your procedure. Foods rich in calcium are recommended (yogurt, cheese, milk, etc.) Those hydrated and nourished tolerate the procedure better. Feel free to bring snacks and/or lunch depending on the length of your appointment
3. You may feel tired or fatigued after the procedure. If you are an outpatient, it is recommended you have someone drive you home.
4. On the day of your procedure, wear loose fitting and comfortable clothing.
5. Consult your physician or the HATS physician about taking blood pressure medication day of procedure, especially if taking an ACE inhibitor.

After Your TPE Procedure?

1. Continue to hydrate for at least 24 hours.
2. Eat a hearty lunch and dinner.
3. Minimize physical activity for several hours after the procedure.
4. Monitor your access sites for signs of bleeding. Refer to your After Visit Summary (Discharge Instructions) .

