



# Therapeutic Plasma Exchange

*Common questions about plasmapheresis*

**Therapeutic plasma exchange is a treatment in which plasma is separated from the blood and removed. It is replaced with donated fresh frozen plasma, albumin, and/or other substitute fluids.**

## **What is therapeutic plasma exchange?**

*Therapeutic plasma exchange (TPE) is also called plasmapheresis. Plasma is the liquid part of blood after the cells have been removed. Pheresis means removal. During this treatment, your plasma is separated and removed from your bloodstream. It is replaced with fluids such as donated fresh frozen plasma, albumin, and/or other fluids. Albumin is a protein your liver makes. Your blood carries albumin through your body.*

## **Why should I have TPE?**

Some substances in your bloodstream are affecting your health and well-being. TPE will remove these substances. Your doctor recommends TPE as part of your treatment plan.

## **What conditions can be treated with TPE?**

TPE may be recommended if you are preparing for an organ transplant. It is also used to treat some types of:

- *Neurological* (nervous system) diseases
- Kidney diseases
- Blood diseases
- Transplant rejection

## **How many treatments will I need?**

- **For transplant rejection:** You may have treatment every day for 3 to 5 days. The number of treatments you have will depend on how severe your rejection is.

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**A nurse will start and finish your TPE, and will check on you during your treatment. A technician will stay in your room to continue your treatment and will watch you closely.**

- **For neurological disease:** How often you receive treatment will depend on how severe your symptoms are. Treatments may be every other day, once a week, 2 times a month, or once a month.
- **For kidney disease and blood disease:** Your treatments will depend on your blood test results on the days you come in. Your doctor will decide if you need treatment after each blood test.

### **What should I expect during TPE?**

Your doctor will insert a *catheter* (a thin, flexible tube) with 2 ports (openings) into a large vein in your chest or groin. During the treatment, your blood will be removed through 1 port of the catheter and go into the TPE machine. It will be returned through the other port.

The TPE machine will separate your plasma from your blood cells. The plasma will be removed and discarded. Your blood cells will be returned through the catheter with the plasma replacement fluid.

The treatment can take from 1 to 3 hours. Your treatment time will depend on the amount of plasma that is exchanged and the type of replacement fluid that is used.

A nurse will start and finish your TPE, and will check on you during your treatment. A technician will stay in your room to continue your treatment and will watch you closely.

### **How will I feel during and after my TPE?**

During the treatment you should feel normal. You will not feel the treatment itself.

After your TPE, you may feel tired, but your body will get used to the treatment over time. Most patients can read, sleep, or watch TV without any problems.

### **What are the possible complications?**

Complications of TPE are rare. They include:

- **Feeling faint or dizzy or having blurred vision, cold sweats, or abdominal cramps.** These may be caused by a drop in blood pressure from having the fluid removed from your body.
- **Feeling of tingling and numbness around your mouth or fingers, and muscle cramps.** These complications may be caused by certain *electrolytes* being out of balance. Electrolytes are substances that are carried in your blood that help regulate many processes in your body.
- **Reaction to the replacement fluid.**

- **Bleeding.** This may occur after a TPE because the parts of your blood that help with clotting are removed along with the plasma. Also, some medicines and health conditions may increase your risk for bleeding.
- **Infection.** This may be caused by the treatment or from the catheter. Also, you may be taking medicines that suppress your immune system. This puts you at higher risk of infection.

### What will be done to prevent complications?

- A blood sample will be taken to check your blood count, electrolytes, and *coagulation* (blood clotting) function before each treatment.
- You will be weighed before each treatment to help decide the correct amount of plasma to be exchanged.
- Your blood pressure and temperature will be checked before, during, and after your treatment. This will ensure that your fluid volume is balanced and you are not reacting to any of the medicines or blood products that are used.
- You will receive calcium through your *intravenous* (IV) line during the treatment. This will replace the calcium you may lose during the treatment. Having enough calcium will keep you from having muscle cramps, numbness, and tingling in your arms and legs.
- Your catheter and the machine will be prepared and handled carefully.

### What can I do to help prevent the complications?

- Report any reactions to blood products and drugs you have had in the past.
- Give your health care team a list of the medicines you take. Include vitamins, supplements, and any medicines you bought without a prescription.
- **Tell your doctor or nurse right away if you have any of these symptoms during or after treatment:**
  - Feeling of being faint or dizzy
  - Blurred vision
  - Cold sweats
  - Abdominal cramps
  - Tingling or numbness around your mouth or fingers
  - Muscle cramps

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## Questions?

Call 206-598-4400

Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC 4-Southeast nurses are also available to help.

4-Southeast Transplant Surgery/Renal Medicine:  
206-598-4400

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- Take care of your catheter:
  - Keep the site clean.
  - Keep the clamps closed while it is not in use.
  - Do not pull on your catheter.
  - Leave the caps on your catheter.
- Avoid cuts and falls for at least 48 hours after each TPE treatment. Use an electric razor when shaving.

### Are there any other precautions?

- Tell your doctor if you are taking any blood thinners (*anticoagulants*). You will be at higher risk of bleeding because your blood's clotting factors are removed with the plasma. Your clotting function should recover 24 to 48 hours after each treatment.
- When you are receiving TPE, you must be careful about cuts, using razors, and falling. This is because it will take longer for bleeding to stop. You will also bruise more easily.

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