

# NIH Clinical Center Patient Education Materials

## Apheresis for Research

Apheresis is a type of blood-drawing procedure. It comes from the Greek word, “apheresis,” which means “to take away.” Apheresis involves drawing whole blood, removing one or more of its parts (such as plasma, white blood cells, platelets), then returning the remaining blood to the donor or patient. At the NIH Clinical Center, apheresis is done in the Dowling Apheresis Clinic of the Department of Transfusion Medicine (DTM).

Various types of machines are used to do apheresis. These machines use sterile, disposable parts to prevent blood-borne infections. The needs of your protocol will usually determine the type of machine used for your apheresis.

The Dowling Apheresis Clinic uses machines that require two needles to be inserted—one in each arm vein. One needle removes blood, and other returns it to the donor or patient.

Your doctor will explain why you need apheresis and which part (or parts) of blood will be removed. If you have questions about the procedure, please contact your research coordinator.

### Preparation

- **Eat well**

You may eat your usual foods, but avoid fatty foods (such as bacon, sausage and hamburger) the night before and morning of your procedure.

- **Drink enough liquid**

The day before apheresis, drink plenty of water, sports drinks, juice, or decaffeinated drinks.

**Note:** If your doctor or research coordinator asked you to fast before apheresis, please tell Dowling Clinic staff when you arrive.

- **Blood work**

If you have blood work scheduled on your apheresis date, ask your research coordinator to contact the Dowling Apheresis Clinic. The clinic staff may be able to draw your blood samples when they insert the needle(s) for your procedure.

- **Wear comfortable clothing**

Wear short or loose fitting sleeves all possible.

- **Arrive promptly**

If you prefer, your nurse can arrange for an escort to go with you to the clinic.

### Procedure

When you arrive in the clinic, clinic staff will take your vital signs (temperature, pulse, blood pressure) and ask you to sign a consent form giving them permission to do apheresis. Feel free to ask any questions at that time. Then, a nurse will examine your arms for the best sites on your arms in which to insert the needles. These sites will be cleansed thoroughly, and needles will be inserted.

During your procedure, you will receive a blood thinning medication (anticoagulant) so that your blood does not clot in the machine. Some people feel these minor side effects from this medication: tingling, numbness (around the lips, nose, and mouth), coolness all over, and slight nausea. These side effects usually come and go quickly, but if you have these symptoms or feel anything unusual, *please tell your nurse immediately*. The clinic staff will pause the procedure and give you chewable calcium or a calcium infusion.

### **How long apheresis takes**

Depending on how much blood the apheresis machine needs to process, your apheresis could take between 1 and 5 hours. A clinic nurse will check on you throughout your procedure.

### **After the procedure**

When the procedure is over, staff will remove the needles and put a bandage over each needle entry site. Please keep these bandages on for 3 to 4 hours.

Before you leave the clinic, the staff will make sure you feel alright, and they will offer you some snacks and juice.

Adjust your daily activity until the following day (about 24 hours):

- Avoid lifting heavy objects.
- Avoid strenuous exercise.
- Take the elevator, not the stairs.
- Drink lots of non-alcoholic/ non-caffeinated beverages.

If you bleed from the needle sites after you leave the Dowling clinic, apply direct pressure immediately. The bleeding should stop very quickly. But if bleeding continues, call 301-496-1211 and ask for the Department of Transfusion Medicine (DTM) fellow on call.

## **Answers to common questions**

### **May I bring a visitor to my apheresis procedure?**

You may have visitors during apheresis. But because of limited space, only one person can stay with you during the entire procedure.

### **What if I need to use the bathroom? Will I be able to come off the machine?**

Before you start apheresis, the staff will ask you to empty your bladder (urinate). If you need to go to the bathroom while on the machine, the staff will provide you with a bedpan or urinal. Avoid drinking coffee or tea before coming to clinic because they may cause you to go to the bathroom more often.

### **Will I be able to read a book or newspaper while on the apheresis machine?**

Because both your arms are needed during the procedure, it may be more comfortable for you to watch TV or choose a movie from our film library. If you prefer listening to music, you may bring a portable music player with headphones.

This information is prepared specifically for persons taking part in clinical research at the National Institutes of Health Clinical Center and may not apply to patients elsewhere. If you have questions about the information presented here, talk to a member of your health care team.

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