



PERIPHERAL STEM CELL COLLECTION: WHAT DO I NEED TO KNOW?

What is apheresis?

Apheresis is a procedure in which blood is taken out of your body and separated into different parts using a special machine called a *centrifuge*. The centrifuge separates the parts of the blood based on their size and weight. Some of the parts are returned to your body right away. Other parts are frozen and kept so you can use them in the future.

How is stem cell apheresis done?

During the apheresis procedure, blood will run from your body through a machine called a centrifuge that separates the stem cells from the other parts of the blood. The stem cells will be collected in a special bag for freezing and storage. All other parts of your blood will be returned to your body. You will remain connected to this machine for several hours. A nurse will be with you during the entire procedure.

To take blood from your body and return it, needles will be placed into veins in your arms and will stay there during the procedure. If the veins in your arms are large and strong enough this will be done with two needles, one in each arm. During the procedure, one arm will have to remain still. You will be allowed some movement with the other arm.

If the veins in your arms cannot be used, a doctor will place a *catheter* (a thin, flexible tube) into a larger vein in either your chest or your groin. This catheter will stay there until the procedure is over. If you have a catheter you will be allowed to move your arms throughout the procedure.

How long does the procedure take?

The procedure itself may take 3-4 hours. You will need extra time for registration and to review your medical history with your nurse or nurse practitioner before the procedure begins.

You may need to have some blood work done when you arrive. We will have to wait for the results of your blood tests before we can begin the procedure.

You may want to bring something to help pass the time such as reading material, a laptop computer, an MP3 player, CDs or DVDs and a player. We have a TV at each chair in our outpatient center.



How should I prepare for apheresis?

Should I take my medications?

The apheresis nurse will ask you about the medications you are taking. Unless told otherwise, you may take your medications as usual. Remember to bring medications you need to take during the day with you, along with a list of all medications that you are taking. Make sure that the list includes the dose of each medication.

In addition to your usual medications you will be given an *anticoagulant*. This is a medication that will stop your blood from clotting during the procedure.

Can I eat before treatment?

You may eat before the treatment. Starting several days before the procedure, if your diet allows, we encourage foods high in calcium such as cheese, yogurt, and ice cream. Calcium may help to prevent side effects from the anticoagulant, the medication that stops your blood from clotting during the procedure. You should drink plenty of fluids to help avoid small drops in blood pressure that may occur during apheresis. Your doctor will recommend how much and what type of fluids you should drink.

What should I wear?

Please wear comfortable clothing. This may be a long day. You will need to remain still for a long time.

Does someone need to come with me?

We suggest that you have someone with you to keep you company, help pass the time, and to help you home. This is highly recommended for the first visit, but it is not required.

What happens during the procedure?

Will there be pain?

The collection procedure SHOULD NOT hurt. You may have some pain or discomfort when the needles are put in place. Remaining still for the required time can be difficult for some people. Comfortable chairs or beds are provided during the procedure.

Can I eat during the procedure?

You may eat during the procedure. We are only able to provide juice and crackers so please bring food or arrange for a friend or family member to bring food.



Will I be able to go to the bathroom?

We will remind you to go the bathroom before the procedure begins. You will not be able to go to the bathroom during the procedure but a bedpan or urinal will be available. There is a curtain that can be closed around you for privacy.

Is the procedure safe?

Yes! Thousands and thousands of stem cell collections are performed each year with very few problems.

Can there be side effects or complications with the procedure?

Most side effects are caused by the anticoagulant, the medication that is needed to keep your blood from clotting during the procedure. These side effects can be easily controlled by slowing the procedure and giving you calcium.

Some common side effects are:

- numbness or tingling of your nose, lips, or fingers
- a sour taste in your mouth
- a feeling of “vibrating”
- dizziness or lightheadedness
- feeling cold

These side effects are not serious, but you should tell the nurse right away if you feel these symptoms or have any discomfort.

Possible complications include:

- Bleeding at the needle sites.
- Clotting in blood vessels used for collection. If this should happen the machine will automatically stop. Your nurses will be watching for this. You do not have to worry.
- Infection

What should I expect after the procedure?

You will be able to leave approximately 30 minutes after the procedure is finished.

The nurse will tell you how long to keep your bandages on. If you have a catheter, your nurse will teach you how to care for it in order to prevent infection. You will be told about the signs of infection to watch for, problems you may experience, and when to call your doctor.

You will be able to eat and drink as usual.



Additional Questions

When will I know if enough stem cells were collected?

Depending on what time of day the procedure was done, you will be contacted either that evening or the next morning by your transplant doctor's office. If enough cells were collected then you should not have to come back.

Should I continue taking my Neupogen after the procedure?

Towards the end of the procedure we will call your transplant doctor's office for instructions on how to take your Neupogen to make sure that your body continues to produce as many stem cells as possible.

Will I have to come back?

Ask your doctor or nurse practitioner. Some patients have to come back 2 -3 days in a row or until a collection goal is met. The process usually does not last more than three days.