

Autologous stem cell transplantation

Stem cell collection



In this stage of the treatment, the stem cells released into your blood are collected. This fact sheet explains how this is done and how to prepare for it.

For a full overview of autologous stem cell transplantation, see the fact sheet [Autologous stem cell transplantation - General information](#).

What is stem cell collection?

Once many cells have been released into the blood by your bone marrow, they need to be captured so they can be stored. For this, a technique called “apheresis” is used.

Your blood is slowly passed through a machine that retains the stem cells. Then your blood is injected back into you. The process is continuous, so you always have the same amount of blood in your body.

Before your stem cells are collected, they need to be counted by taking blood samples every day. When there are enough of them, they can be collected.



Is one collection enough?

No. Generally, 2 or 3 are needed to have enough stem cells for the transplant. The collections are done once a day.

How long does one collection take?

It takes 4 to 6 hours. During that time, you won't be able to leave the treatment room. Remember to urinate beforehand. The nurse will remind you.

How should I prepare?

- > Have a full breakfast in the morning when you're going for a collection. Choose foods rich in calcium, such as dairy products (e.g. milk, yogurt).
- > Wear loose-fitting clothing, such as a shirt or blouse that opens at the front. This makes it easier to access the catheter that has been installed in your neck (see page 2).
- > Bring water, snacks, or a cold meal.



- > Bring your medications for the day, including your growth factor injection.
- > Bring something to distract you (book, music, laptop, etc.).

How is the procedure carried out?

- 1 Before the first collection, a central catheter with 2 lines (tubes) is installed in Radiology at your neck.
- 2 The nurse starts the collection and makes sure everything goes smoothly. One catheter line is used to draw out your blood. This line goes into the device that collects and retains the stem cells. Then, the blood comes out of the device and is reinjected through the other catheter line.



- 3 If you feel any discomfort during the procedure, tell the nurse right away. The nurse will check on what's wrong and do what is needed to make you more comfortable.
- 4 When the collection is finished, the catheter is closed. It remains in place until all the collections are done. It will be removed after the last one.

Your stem cells are kept by Héma-Québec, where they're frozen. They'll be stored until they're reinjected into you.

Are there any potential side effects or complications?

You could have:

- > Discomfort or slight pain where the catheter enters. You can take acetaminophen (e.g. Tylenol) to relieve this.
- > A drop in blood calcium. This effect is temporary. It is caused by an anticoagulant injected during the procedure.

Mainly, this produces:

- tingling around the mouth or hands, and sometimes in the feet
- muscle cramps of variable strength and duration.



If you have these symptoms, you may be advised to take calcium supplements or to eat calcium-rich foods.

Are there any precautions to take after the collection?

When you get home, don't wet the bandage covering the catheter. If you take a shower, protect it with plastic wrap and diachylon tape.



- > Call your **pivot nurse (also called nurse navigator)** or the nurse who did the collection if you have signs of infection where the catheter enters:
 - swelling
 - redness
 - leaking
 - unusual pain
- > Go to the emergency room (if possible at the CHUM) with your oncology passport :
 - If your temperature taken by mouth exceeds 38 °C (100,4 °F) for more than one hour.
 - As soon as your temperature taken by mouth exceeds 38.3 °C (100.9 °F).



Who can I contact for help or to ask questions?

Feel free to contact any member of your healthcare team. Your pivot nurse will also follow you throughout your treatment.

Tel.:

The pivot nurse is available Monday to Friday, from 8:00 a.m. to 4:00 p.m.



USEFUL RESOURCES

Canadian Cancer Society :
cancer.ca
 1 888 939-3333

The French National Cancer Institute :
en.e-cancer.fr

Lymphome Canada :
lymphome.ca

Myeloma Canada :
myelomacanada.ca/en

Other health sheets published by the CHUM are available. Ask for those that might fit your situation.



You can also find them on our website
chumontreal.qc.ca/fiches-sante



Questions

The content of this document in no way replaces the recommendations and diagnoses made, or the treatment suggested by your health professional.

To find out more about the Centre hospitalier de l'Université de Montréal
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