



Caroline  
CORD BLOOD DONOR

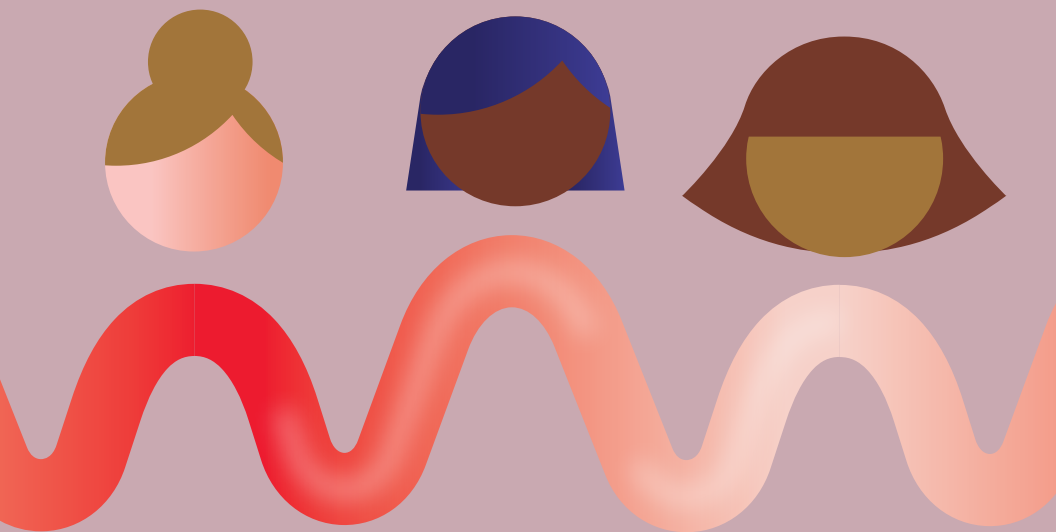
Public Cord Blood Bank

# CORD BLOOD DONATION GUIDE



# WHY CHOOSE TO DONATE CORD BLOOD?

By signing up to donate cord blood, you're giving hope to a sick person—and their family—the hope of receiving a much-needed stem cell transplant.



Umbilical cord blood is full of precious stem cells that can save a life or help researchers working to improve the health of patients with serious illnesses.

This brochure contains all the details you need to help you make an informed decision about donating to the Public Cord Blood Bank.

**Cord blood has the power to save the life of a complete stranger who's waiting for a much-needed stem cell transplant.**

Blood stem cells (also known as hematopoietic stem cells) are produced by bone marrow. They're also found in the bloodstream, and in concentrated quantities in cord blood. In some ways, they are like the "mother" cells of blood cells.

## THESE CELLS REPRODUCE ENDLESSLY AND BECOME:

- Red blood cells, whose tasks include transporting oxygen
- Platelets, for coagulation
- White blood cells, for the immune system

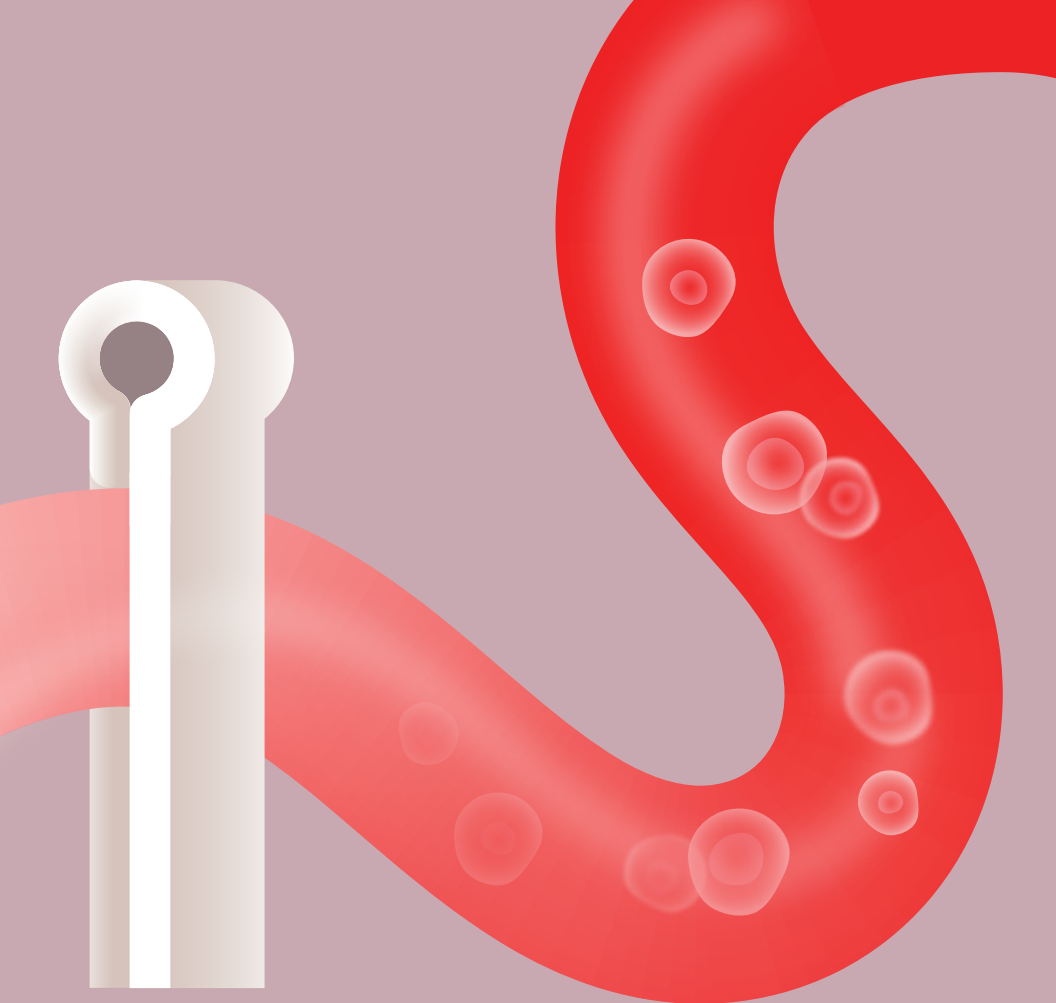
When a patient has leukemia (for example) and their treatment options have been exhausted, a stem cell transplant is their last chance. However, there must be an exact genetic match between donor and recipient. A donor must be found, here or elsewhere in the world, who is compatible with the patient.

The first step is to check with the patient's siblings. However, there is only a one in four chance that a sibling with the same parents is compatible. If there are no compatible siblings, the search turns to finding a donation from an unrelated person through the Stem Cell Donor Registry (adults) or a cord blood product from the Public Cord Blood Bank.

Stem cells taken from donated cord blood are usually used to treat children, because the amount of cells that can be collected from an umbilical cord is more suitable for people weighing less than 50 kg. However, some adults can also receive a transplant from these cells.

Plus, it's easier to find a compatible cord blood product for a patient than it is to find a compatible adult stem cell donor. Cord blood helps more patients get transplants, and stem cells can be frozen for many years.

Cord blood is crucial to treating many serious illnesses through stem cell transplants.



Give life.

More  
than once.

# THE HÉMA-QUÉBEC PUBLIC CORD BLOOD BANK

The Héma-Québec Public Cord Blood Bank has been in operation since 2004. Its purpose is to turn stem cells from umbilical cord blood into a collective resource and provide a high-quality supply that meets the needs of patients awaiting a stem cell transplant in Québec, Canada and around the world.

The Bank provides access to a complementary source of stem cells and is an integral part of the World Marrow Donor Association (WMDA). Because the likelihood of finding a compatible unrelated donor varies widely based on genetic characteristics, and because most transplants in Québec use donations from outside the province, it's essential for Héma-Québec to join forces with other organizations both nationally and internationally.

## HOW CORD BLOOD IS USED

The greater the genetic diversity in the cord blood that a blood bank has, the higher the chances that a patient can get a stem cell transplant. The immune system cells contained in cord blood also reduce a transplant recipient's odds of getting complications from side effects.

If donated cord blood proves ineligible for storage in the Public Cord Blood Bank once it has been tested, it may be distributed to research centres for projects approved by the ethics and research committees. Teams at Québec research centres need cord blood to help the global scientific community learn more about ways to safely and effectively use cord blood.

A close-up portrait of a man with dark hair and a beard, looking slightly to the right with a gentle expression. The background is a soft, out-of-focus light color.

**François**  
**CORD BLOOD RECIPIENT**

# THE STORY OF FRANÇOIS, EXPANDED CORD BLOOD TRANSPLANT RECIPIENT

At 23 years old, François, a recent economics graduate, was about to have the best summer of his life. But François's world turned upside down when he was diagnosed with acute myeloid leukemia (AML) after a series of infections in his left foot. Doctors at Hôpital Maisonneuve-Rosemont soon detected leukemia cells in his blood and confirmed the diagnosis with a bone marrow biopsy.

## **FIGHTING THE DISEASE**

Although his illness was serious, his medical team's comforting words and the support of his loved ones gave François the strength to undergo chemotherapy. After a difficult month in isolation, François's cancer went into remission and he returned to his normal life. But, just 11 months later, the cancer came back.

## **HOPE THROUGH RESEARCH**

With no compatible donor, François took part in clinical research using the UM171 protocol, a major innovation in the field of stem cell transplants. This protocol, developed by Canadian researchers, considerably increases the number of stem cells per unit of cord blood, making transplants more accessible and effective for adults.

This procedure unlocks new opportunities for patients awaiting a transplant, like François, and gives them a new chance at life.

# DONATING TO THE PUBLIC CORD BLOOD BANK

Have you decided to donate your precious umbilical cord blood? It's an easy three-part process.

## 1. REGISTRATION

The first step is registering. On our website, you'll find the registration form and a link to the Consent to Cord Blood Donation form.

To allow time for the selection process, you must register before

your 36th week of pregnancy.

Donating stem cells is an unpaid act of altruism. Your involvement with the Public Cord Blood Bank is completely up to you and you can end it at any time without prejudice.

## 2. THE SELECTION PROCESS

A Héma-Québec Public Cord Blood Bank staff member will contact you to determine your eligibility. This process includes a questionnaire about your health and the health of the baby's biological relatives, and is designed to ensure the safety of the stem cell transplant recipient. You can also ask us questions at this

stage.

If it turns out that you are ineligible, someone from Héma-Québec will explain why you cannot donate.

Otherwise, the collection will be planned with the staff of the hospital where you plan to give birth.

## 3. THE DONATION

Donating cord blood is a simple procedure that poses no risk or discomfort for you or your baby.

Cord blood donations are done at partner hospitals with staff trained by Héma-Québec. After your child is born, once the cord is clamped and before the placenta is delivered, the physician who supported you during the birth will collect the cord blood. The procedure takes between three and five minutes, and neither you nor your baby will feel anything at all.

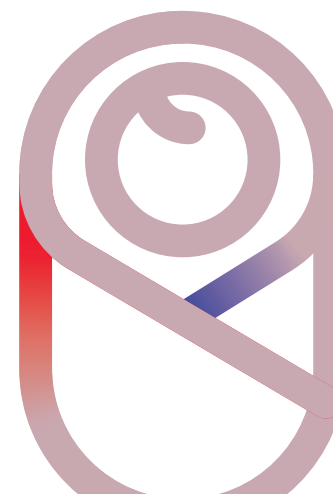
The collected cord blood is then shipped to Héma-Québec's laboratories. It will be tested<sup>1</sup> to determine its quality. One of the

selection criteria is the volume of blood collected, because a minimum amount of blood is required to ensure that the transplant will be successful.

If the blood meets the criteria, it will be frozen and stored in the bank until it is used. A Public Cord Blood Bank staff member will contact you within a few days of your donation to fill out a second selection questionnaire and make an appointment for a blood sample that will be tested.<sup>1</sup>

If the blood does not meet the criteria but you have consented to donate to research, the cord blood may be used for research purposes.

1. The list of tests appears in the Consent to Cord Blood Donation form.





If you have questions,  
want to clarify anything  
or want to talk with us directly,  
feel free to contact us!



**Register now**  
**(before week 36 of your pregnancy)**

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