### PUBLIC CORD BLOOD BANK





BY PARTICIPATING IN THE
PUBLIC CORD BLOOD BANK,
YOU INCREASE THE CHANCES OF
SURVIVAL OF ALL PATIENTS AROUND
THE WORLD WAITING FOR A
STEM CELL TRANSPLANT.

Blood from a baby's umbilical cord can save lives or help researchaimed at improving the health of people with life-threatening diseases. Cord blood is collected from volunteer mothers who have registered with the Héma-Québec Public Cord Blood Bank. This blood is collected after your baby's birth and sent to the Bank. This procedure involves no risk to the mother or the newborn.

This pamphlet contains all the information you need to make an informed decision about your potential participation in the Public Cord Blood Bank. After you have read this, if you wish to donate your child's umbilical cord blood, simply fill out the registration form on our website.

A Héma-Québec staff member will then contact you to complete the eligibility process.

### HĒMA-QUĒBEC PUBLIC CORD BLOOD BANK

Héma-Québec Public Cord Blood Bank has been in operation since 2004. The Bank aims to make stem cells from umbilical cord blood a collective resource and to provide an optimal-quality supply that meets the needs of patients waiting for a stem cell transplant in Québec, in Canada or elsewhere in the world.

The Public Cord Blood Bank provides access to a complementary source of stem cells, other than those available in bone marrow and peripheral blood, and is an integral part of the World Marrow Donor Association (WMDA), the international registry of stem cell donors.

Since the chances of finding a compatible unrelated donor vary widely depending on the patient's genetic make-up and since most transplants in Québec are performed using donations from outside the province, this national and international collaboration, in which Héma-Québec participates, is indispensable.

### STEM CELLS

One of the primary roles of bone marrow is to produce the various components of blood, using certain cells known as "hematopoietic stem cells". These vital cells are capable of differentiating into blood cells (red blood cells, white blood cells and platelets).





# UMBILICAL CORD BLOOD

Long considered biological waste, blood from the umbilical cord and placenta (cord blood) is an excellent source of hematopoietic stem cells. The number of stem cells collected can generally be used for transplants in individuals weighing less than 50 kg, most of whom are children. Some adults may also undergo cord blood transplants successfully.

Furthermore, it is easier to find compatible cord blood for a patient than a donor with compatible bone marrow. This means that transplants can be accessible to a greater number of patients. Stem cells can be kept frozen for several years.

To contact a Héma-Québec
Public Cord Blood Bank staff member:

1-800-565-6635 or 514-832-5000, ext. 5253 cordblood@hema-quebec.gc.ca

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#### **USING CORD BLOOD**

Cord blood is used to transplant stem cells in patients who mainly suffer from leukemia, anemia or an immune system disorder. This treatment depends on the availability of cord blood whose cellular characteristics are compatible with those of the recipient. The chances of identifying a compatible donation vary depending on the recipient's genetic characteristics. The greater the number of cord blood donations the Bank has from various ethnic origins, the greater the chances are of identifying a compatible donor.

The immune system cells contained in cord blood also have the advantage of reducing graft-versus-host complications in the recipient. If your baby's umbilical cord blood does not qualify for the Public Cord Blood Bank, it could be distributed to research centres for projects approved by research ethics committees. Teams from Québec's research centres need cord blood to contribute to on-going initiatives by the global scientific community to increase their knowledge of effective and safe use of cord blood.

# I WANT TO DONATE MY BABY'S UMBILICAL CORD BLOOD

To register with the Public Cord Blood Bank, future mothers must consult the list of partner hospitals and eligibility criteria at hema-quebec.qc.ca or contact a member of the Public Cord Blood Bank team at 1-800-565-6635 or 514-832-5000, ext. 5253.

# MY PARTICIPATION IN THE PUBLIC CORD BLOOD BANK

You've decided to donate your baby's cord blood after birth?



### DONATION

Collecting cord blood is a simple procedure that takes three to five minutes; there is no risk for the infant or mother. Cord blood is collected in partner hospitals by staff trained by Héma-Québec. The physician collects the cord blood after the baby is born, once the umbilical cord is cut but before the placenta is expelled. The mother and newborn feel no effects.

The collected blood is then sent to Héma-Québec's laboratories. Tests¹ will be conducted to qualify the cord blood. The amount of blood collected is a qualification criterion: a minimum amount of cord blood is required.

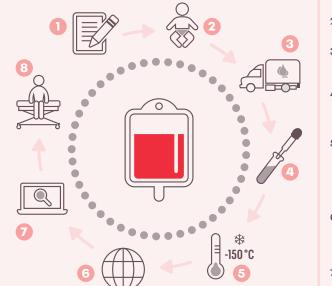
If the cord blood meets the qualification criteria, it is frozen and kept in the bank until its use. A staff member from the Bank will contact you in the days following the donation to fill out a second qualification questionnaire and collect blood samples for testing. If it does not meet the criteria, but you have consented to donate the cord blood to research, it may be used for research purposes.

#### PERSONAL INFORMATION

All information collected about donors, including test results, is treated confidentially, in accordance with the law. The medical record may be consulted and rectified if necessary.



### a simple procedure that takes three to risk for the infant or mother. Cord blood is CORD BLOOD DONATION STEP BY STEP



- Registration in the
   Public Cord Blood Bank and
   qualification of the mother
- 2. Cord blood donation at birth
- **3.** Transportation of the cord blood to Héma-Québec
- **4.** Qualification of the cord blood Testing of the mother's blood
- Processing and freezing of the cord blood at -150°C
   Preservation for several
- **6.** Cord blood units made available to an international
- Search for a unit compatible with a patient waiting for a stem cell transplant
- 8. Transplant

### rd blood after birth?

#### REGISTRATION

THIS INVALUABLE DONATION

**INVOLVES THREE STEPS:** 

To continue with the qualification process, you must read the consent and fill out the registration form on our website, before the 36<sup>th</sup> week of pregnancy. Cord blood donation is a voluntary act and is not compensated. Your participation in the Bank is entirely free and you can withdraw at any time without consequence.

#### **QUALIFICATION PROCESS**

A staff member from the Bank will contact you to fill out the qualification questionnaire and answer any questions you might have. This process is aimed at ensuring the donor's safety, as well as that of the newborn child and the person receiving the transplant.

If you do not qualify, a staff member from Héma-Québec will explain the reasons for your exclusion.

If you qualify, the cord blood collection will be planned with the hospital staff where you are giving birth.



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<sup>1</sup> The list of tests is specified on the consent form.