

# Information sheet

## on blood donation

### Who can give blood?

- In Québec, anyone in good health who is aged 18 and over and meets Héma-Québec eligibility criteria can give blood every 56 days, i.e. 6 times per year. There is no longer an upper age limit.
- Only 3% of eligible Quebecers make donations to the blood bank managed by Héma-Québec for Québec hospitals and their patients.

### When is blood needed?

- Every day, Héma-Québec receives about 200 orders from hospitals for blood components, which are derived from blood donations, to treat patients.
- Every year, Héma-Québec supplies hospitals with an average of 430,000 labile blood products to meet patients' needs.
- Héma-Québec needs to collect on average 1,000 blood donations per day to meet patients' needs.
- The blood components derived from blood donations are perishable. For example, platelets have a lifespan of only five days.
- The short preservation time of blood components combined with the need to ensure a safe blood supply makes the challenge even greater.
- Héma-Québec must keep its blood bank at an optimal level.

### Who receives blood?

- Every 80 seconds, someone in Québec needs blood.
- Every year, some 80,000 patients in Québec receive blood products.

- Blood transfusion is an occasional treatment that is crucial to the survival of thousands of people. For a large number of patients, situations and surgeries require one, or even several transfusions. For example:
  - hemophilia;
  - leukemia;
  - orthopedic, cardiovascular, plastic or transplant surgery;
  - accidents;
  - major burn cases.
- Close to one in seven Quebecers has had a transfusion.
- One in three Quebecers has a loved one who has already had a transfusion.
- The likelihood of a person needing at least one blood transfusion during their lifetime, before age 72, is 60%.

### Which blood type is the most prevalent?

- In humans, the blood type is determined by substances, known as antigens, found on the surface of red cells. Blood types are grouped into "systems." In the ABO system, there are four possible blood types: A, B, O and AB.
- Only type O Rh negative can be transfused to all other types: It is the universal donor. And only type AB Rh positive can receive from all other groups: It is the universal recipient.
- All blood types are in demand. However, we should stress that even though type O Rh positive is the most common type in the population (39%), it is also the one most in demand.
- In most cases, recipients are transfused with the blood from a donor of their own blood type. This means that an A+ recipient will receive blood from an A+ donor.



Give Blood. Give Life.

Packed red blood cells

Plasma

Platelets

## How is blood donated?

- Anyone who meets all of the eligibility criteria for donors at a blood donation centre can give blood.
- Although the overall blood donation process takes about 60 minutes, the actual blood collection lasts about 10 minutes. The entire blood collection process takes place under very strict conditions:
  - A Héma-Québec nurse settles the donor comfortably on a reclining chair and tells him/her to relax.
  - Several minutes later, the donor's arm is carefully disinfected at the puncture site with two different antibacterial solutions to eliminate any risk of infection.
  - A new, sterile needle is inserted in the arm and connected to a sterile collection device.
  - During a donation, the collection device is rocked by an agitator to prevent the formation of clots; this device automatically stops the collection once the blood bag contains 450 millilitres.
  - When the bag is full and the needle is removed, a sterile gauze compress is applied to the donor's arm.
  - The used needle is discarded and will be destroyed by incineration.
  - The donor applies pressure on the collection point for 5 minutes to stop the bleeding, and a small dressing is applied.
  - Next, a volunteer directs the donor to the recuperation area, and later gives him/her a snack.

## What happens to the blood after it is collected?

- Before delivery to hospitals, the blood collected by Héma-Québec is processed to obtain the various blood components: Red cells, plasma, platelets and cryoprecipitate. This is why we say that one blood donation can save up to four lives.

- Every blood donation is systematically analyzed and submitted to high precision screening tests for diseases that can be spread through blood transfusion, before being declared in compliance with the national safety standards issued by Health Canada.
- The processing of whole blood into the various products results in a more effective treatment, since the patient will receive only the components he/she needs.
- The processing starts with the receipt and recording of the blood bags in the blood management system. Thanks to this technology, the donations can be tracked at all times.
- First, the whole blood is centrifuged to separate the red cells from the plasma. Next, the bag of plasma is centrifuged again to extract the platelets. The cryoprecipitate is obtained by freezing and thawing the plasma.
- Almost all the white cells are eliminated by filtration, thereby reducing the risk of transfusion reaction.
- After the processing, all of the products are placed in the quarantine area until all tests have been completed. Once the process is complete and the products that meet standards have been duly labelled, they are ready for shipment to Québec hospitals.
- The components of a blood bag collected on Monday, for example, are ready for shipment by late Tuesday afternoon.

## Where can I donate blood?

- At the three GLOBULE Blood Donor Centres (Place Versailles, Place Laurier and the Héma-Québec building at 4045 Côte-Vertu Blvd. in Saint-Laurent);
- At the Mobile Blood Donation Unit, which travels to industrial parks, campsites and shopping centres;
- At one of the 2,500 mobile blood drives organized by community partners.

## For more information

- To find out more about the blood donation eligibility criteria, the blood drive sites and times, call 1-800-343-7264 or visit the Héma-Québec Web site at [www.hema-quebec.qc.ca](http://www.hema-quebec.qc.ca).

