

## WHO CAN GIVE?

Donor and recipient safety is an ongoing concern for Héma-Québec. Only people aged 18 or over who meet the qualification criteria may donate plasma.

All prospective donors must show an identification card and complete a questionnaire about their health status and aspects of their personal life. Staff members then check their blood pressure, weight and height, temperature and hemoglobin levels (hemoglobin is an iron-containing protein inside red blood cells).

If everything is satisfactory, the donation can take place. It is important to have eaten and be well hydrated before donating. A bottle of water and a snack are also given to donors at the reception.



For information on plasma donation eligibility, please call: 1-800-847-2525.

## WHERE TO DONATE?

Plasma donations are made in **donor centres**, by **appointment**: 1-800-343-7264 (Saguenay, Gatineau, Sherbrooke, Québec City) or 1-888-666-4362, ext. 5408 (Trois-Rivières).



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## DID YOU KNOW?

A<sup>+</sup> B<sup>+</sup> AB<sup>+</sup> O<sup>+</sup>

If your blood type is A+, B+, AB+ or O+ and you would like to donate more often, you are particularly sought after for plasma donation.

Plasma can be donated

EVERY **6** DAYS  
UP TO 50  
TIMES A YEAR

Every donation counts and makes a difference!

## OTHER WAYS TO GIVE

Volunteer with Héma-Québec and you too can save lives by helping to recruit donors and organize blood drives.

To find out more: [www.hema-quebec.qc.ca](http://www.hema-quebec.qc.ca), Volunteering section.

# The plasma route



## The needs for plasma are great

Thousands of Quebecers need plasma to treat various illnesses, including neurological disorders, immune deficiencies and other diseases, such as hemophilia. By giving plasma, you are helping them regain their health and you are saving lives!

### WHAT IS PLASMA?

Plasma is the liquid part of blood. This yellow fluid, made up of 90% water and 10% protein, transports blood cells (red blood cells, white blood cells and platelets) and nutrients throughout the human body.

### WHAT IS PLASMA USED FOR?

Plasma has many uses, which is why it is very sought after. It can be:



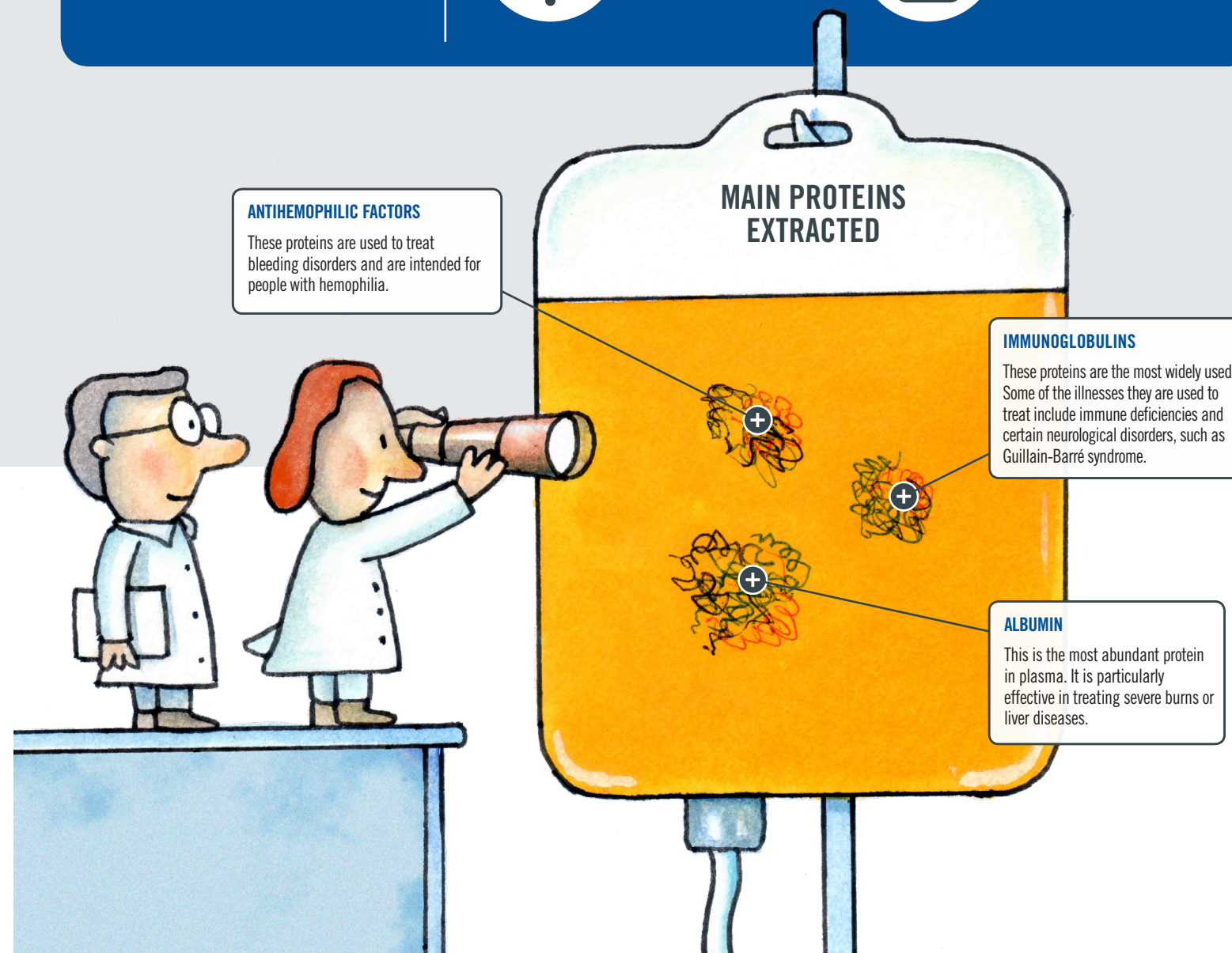
#### TRANSFUSED

To treat severe burns or stop hemorrhages



#### PROCESSED

To extract various proteins and make medications



#### ANTIHEMOPHILIC FACTORS

These proteins are used to treat bleeding disorders and are intended for people with hemophilia.

#### MAIN PROTEINS EXTRACTED

#### IMMUNOGLOBULINS

These proteins are the most widely used. Some of the illnesses they are used to treat include immune deficiencies and certain neurological disorders, such as Guillain-Barré syndrome.

#### ALBUMIN

This is the most abundant protein in plasma. It is particularly effective in treating severe burns or liver diseases.

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GIVE PLASMA. GIVE LIFE.



# The steps between donation and delivery of plasma products

## DONATION

Plasma donations are made in **donor centres**, by **appointment**. The collection process lasts approximately 45 minutes.

The volume of plasma collected depends on the donor's weight and height. This quantity must correspond to less than 18% of the donor's estimated blood volume.

Collections are performed using an apparatus equipped with a sterile and single-use collection device, which:

1. collects the blood;
2. separates it into its various components;
3. stores the plasma in a collection bag; and
4. returns the unselected components to the donor.

The procedure is safe. The device calculates everything and immediately signals any issues.

## FREEZING

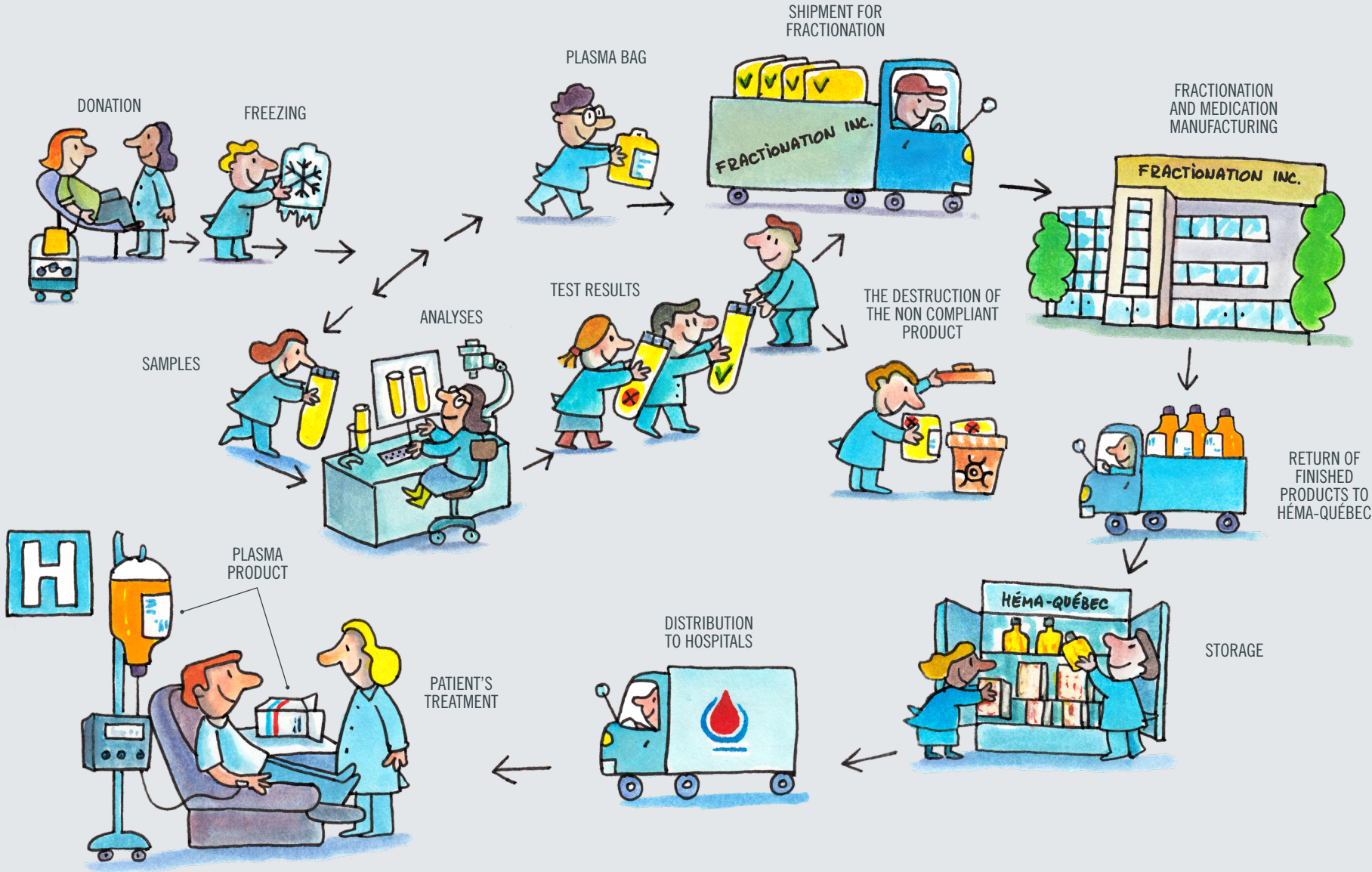
Plasma must be quickly frozen following collection. The faster you freeze it, the more protein you can extract.

## TESTING

Collections are sent to the qualification laboratory. They are screened for blood-borne infections and diseases. All donations are tested. Compliant products are then shipped to fractionation plants.

## SHIPMENT FOR FRACTIONATION

The plasma is sent to fractionation plants. These high-tech plants extract proteins from plasma (immunoglobulins, albumin and antihemophilic factors) and use them to make medications.



## RETURN OF PRODUCTS TO HÉMA-QUÉBEC

The finished products are then returned to Héma-Québec. All plasma donations made in Québec are used to make products for local patients.

## DISTRIBUTION TO HOSPITALS

Héma-Québec delivers thousands of plasma products to hospitals every month.

### PLASMA PRODUCTS: A MAJOR PART OF HÉMA-QUÉBEC'S ACTIVITIES

Héma-Québec is the exclusive distributor of plasma-based medications for Québec. To meet the needs of Québec patients, it distributes some fifty different products, four of which are made from the plasma it collects.

Each year, it delivers more than 400,000 plasma products to hospitals, but local donations are not sufficient, and the rest of the plasma required to make these medications must be purchased abroad.

Héma-Québec has set up a large network of centres dedicated to plasma donation to facilitate access to this type of donation and gradually increase the amount of Québec plasma available for the production of these medications. Other centres will be added, but it is only with the generous contributions of people willing to share their health that we can make a difference.

## How is plasma separated from blood?

An apparatus is used to separate plasma from blood as it is collected. In a sterile, single-use device located within the apparatus, the blood is rotated at high speeds. It then separates into two parts: plasma and red blood cells. The plasma is extracted into a collection bag, while the apparatus

returns the red blood cells to the donor. Everything is performed in a closed circuit. The blood products never come in contact with the air or the apparatus.

## How are proteins extracted from plasma?

To extract proteins from plasma, donations from several thousands of donors are mixed together. This mixture is then subjected to various temperatures, following which the pH and alcohol and water concentrations are adjusted. Each formula isolates a particular type of protein. These proteins are then

purified: they are treated with chemicals and heat to eliminate viruses and potential pathogens. Finished products are then tested to ensure they meet the highest quality standards. This manufacturing process can take up to 12 months.

BLOOD COLLECTION



BLOOD SEPARATION



PLASMA EXTRACTION



RETURN OF OTHER COMPONENTS TO THE DONOR



DONATIONS FROM THOUSANDS OF DONORS ARE MIXED



pH AND ALCOHOL AND WATER CONCENTRATION ADJUSTMENT



SEPARATION OF PROTEINS



PURIFICATION

