**Did you know?**

- Different transfused products are used depending on the patient’s condition.
- Collection techniques differ based on the type of donation.

---

**Whole blood**

The blood is collected as-is and separated into its various components in a laboratory. This type of donation is made at a blood drive, in a mobile unit or in one of our GLOBULE Blood Donor Centres.

**Apheresis**

The blood is separated during collection by a machine that collects only the required blood components (plasma, platelets, white blood cells or red blood cells) and returns the others to the donor. These types of donations are made in a GLOBULE Blood Donor Centre or a PLASMAVIE Plasma Donor Lounge.

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**Blood donation**

**What you need to know...**

**According to the product collected**

<table>
<thead>
<tr>
<th>Product</th>
<th>Approximate collection duration</th>
<th>Interval between donations</th>
<th>Weight and height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Blood</td>
<td>10 to 15 min</td>
<td>56 days</td>
<td>More than 54 kg/118 lb</td>
</tr>
<tr>
<td>Plasma</td>
<td>45 min</td>
<td>6 days</td>
<td></td>
</tr>
<tr>
<td>Red Blood Cells</td>
<td>25 min</td>
<td>Double donation: 112 days</td>
<td></td>
</tr>
<tr>
<td>Platelets</td>
<td>75 min</td>
<td>14 days</td>
<td></td>
</tr>
<tr>
<td>White Blood Cells (granulocytes)</td>
<td>90 min</td>
<td>10 days</td>
<td></td>
</tr>
<tr>
<td>Platelets</td>
<td>90 min</td>
<td>Various according to the products collected</td>
<td></td>
</tr>
</tbody>
</table>

**Before donating**

- Drink at least 500 ml of water or juice and make sure to eat well while avoiding fatty foods (e.g., bacon, fried foods, etc.).
- Answer questions about health status; risk behaviors related to communicable diseases.
- Agree to have Héma-Québec check: blood pressure and temperature; hemoglobin levels; platelet levels; protein levels; white blood cell levels.
- Sign a consent to donation.

**During donation**

- Fluids are administered to the donor.
- An anticoagulant is added to the blood.

**Contraindications**

- Anemia
- Surgery
- Accident
- Immuno-deficiency
- Severe hemoglobin deficiency
- Major burns
- Acute trauma
- Infection
- Blood disease
- Chemotherapy
- Cancer
- Anaphylactic shock
- Heart condition
- Diabetes
- Severe hemorrhage
- Immunodeficiency
- Major burn victims
- Acute trauma
- Infection
- Blood disease
- Chemotherapy
- Cancer
- Anaphylactic shock
- Heart condition
- Diabetes

---

**At any time, the donor may change his or her mind and decide not to donate.**
### Use of donations and personal information

Collected products are used for transfusion or to make medications. On rare occasions, they may be used for teaching, product quality control (in transfusion medicine) or international aid purposes.

The information collected on donors, which includes test results, is kept confidential, but is shared with Canadian Blood Services to support their work. Donors may consult their file and, if necessary, have it rectified.

### Risks and screening tests

Sexual relations or the sharing of needles or syringes can contribute to the spread of blood-borne viruses. Despite the effectiveness of screening tests, there is a period during which, even if the donor tests well and tests negative for HIV and hepatitis B and C, he or she may have recently been infected and may therefore transmit these viruses to a person receiving a product made from his or her donation.

The donor must notify Héma-Québec immediately if he/she believes, for any reason whatsoever, that his/her blood should not be transfused to a patient.

### After the donation

- Rest and drink 500 mL of water or juice.
- Keep the bandage on the puncture site for six hours.
- Avoid any intense physical activity for six to eight hours. Blood donation can affect the performance of intense physical activity for a few days, particularly in the case of a red blood cell donation.
- In case of weakness: sit down with head between the knees or lay down for a few minutes. Depending on the donor's occupation or exercise practices, one or two may be needed before regular activities can be resumed (e.g., bus driver, heavy machinery operator, etc.).

### Adverse reactions

**Tests conducted**

Héma-Québec analyzes all the blood donations it collects to detect blood-borne diseases:

- Hepatitis B and C;
- Human T-cell lymphotropic virus (HTLV I/II);
- syphilis;
- human immunodeficiency virus (HIV);
- West Nile virus (WNV)\(^1\);
- This test is conducted systematically during the epidemiologic season; outside of this period, it is only performed if the donor has travelled outside of Canada in the past 56 days;
- Chagas disease;
- This test will be conducted for donors if they, their mother and/or their maternal grandmother were born in a Latin-American country (including Mexico) or if they have spent 30 consecutive days or more in one.

There may be situations in which these tests are not conducted (e.g., damaged sample). In this case, the blood donation is destroyed without further analysis.

**In the event of an abnormal result:**

- the donation is destroyed;
- the donor is notified and his or her results are kept confidential, but are shared with Canadian Blood Services to determine the length of time during which he or she cannot donate;
- the Local Director of Public Health will be notified of a positive result in cases where the law requires it.

**Other tests conducted:**

- blood group (ABO, Rh and, if necessary, other blood groups);
- coagulation tests (APTs, APTT, if necessary);
- bacterial cultures of plasmapheresis
- a hemoglobin type, if applicable.

**Risky activities and screening tests**

Sexual relations or the sharing of needles or syringes can contribute to the spread of blood-borne viruses.

### Adverse reactions

<table>
<thead>
<tr>
<th>ADVERSE REACTIONS</th>
<th>SIGNS AND SYMPTOMS</th>
<th>FREQUENCY</th>
<th>WHOLE BLOOD DONATION</th>
<th>Apheresis DONATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecchymosis (bruises)</td>
<td>at the puncture site</td>
<td>Occasional</td>
<td>Occasional</td>
<td></td>
</tr>
<tr>
<td>Pain or numbness in arm</td>
<td>Usually short term</td>
<td>Occasional</td>
<td>Occasional</td>
<td></td>
</tr>
<tr>
<td>Nausea, vomiting, feeling faint</td>
<td>Occasional</td>
<td>Occasional</td>
<td>Occasional</td>
<td></td>
</tr>
<tr>
<td>Fatigue the day after donation</td>
<td>Occasional</td>
<td>Occasional</td>
<td>Occasional</td>
<td></td>
</tr>
<tr>
<td>Inflammation of a vein in the arm (superficial phlebitis)</td>
<td>Pain, warmth, redness</td>
<td>Very rare</td>
<td>Very rare</td>
<td></td>
</tr>
<tr>
<td>Reduced iron reserves (ferritin)(^1)</td>
<td>Abnormal tests of certain substances such as ion, fatigue, reduced stamina, memory and mood problems</td>
<td>More likely to occur in frequent donors</td>
<td>More likely to occur in frequent donors</td>
<td></td>
</tr>
<tr>
<td>Destruction of red blood cells (haemolysis)(^2)</td>
<td>Pink- or red-tinted area after the procedure</td>
<td>Very rare</td>
<td>Very rare</td>
<td></td>
</tr>
<tr>
<td>Reaction to sodium citrate (anticoagulant)</td>
<td>Numbness or tingling of the lips, face or fingertips</td>
<td>Frequent (5% of donors)</td>
<td>Frequent (5% of donors)</td>
<td></td>
</tr>
<tr>
<td>Chills</td>
<td>Presence of a metallic taste</td>
<td>Frequent (5% of donors)</td>
<td>Frequent (5% of donors)</td>
<td></td>
</tr>
<tr>
<td>Other(^3)</td>
<td>Occasional</td>
<td>Occasional</td>
<td>Occasional</td>
<td></td>
</tr>
</tbody>
</table>

**ADVERSE REACTIONS**

- Occasional:
- Usually:
- Very rare

**FREQUENCY**

- Non-exhaustive

**SIGNS AND SYMPTOMS**

- Occasional

**WHOLE BLOOD DONATION**

- Apheresis DONATION

- For each donation, Héma-Québec verifies hemoglobin or hematocrit levels, but not the iron levels. Donors may therefore use iron supplements, with advice from their doctor or pharmacist. A dosage of elemental iron ranging from 19 to 45 mg per day for 12 weeks following a donation may be sufficient.

- For frequent donors, Héma-Québec's mobile units use sophisticated collection equipment. The modern collection equipment used by Héma-Québec prevents the risk of embolism.

- In case of weakness: sit down with head between the knees or lay down for a few minutes. Depending on the donor’s occupation or exercise practices, one or two may be needed before regular activities can be resumed (e.g., bus driver, heavy machinery operator, etc.).

- Inflammation of a vein in the arm (superficial phlebitis) Pain, warmth, redness Very rare

- Reduced iron reserves (ferritin)\(^1\) Abnormal tests of certain substances such as ion, fatigue, reduced stamina, memory and mood problems More likely to occur in frequent donors

- Destruction of red blood cells (haemolysis)\(^2\) Pink- or red-tinted area after the procedure Very rare

- Reaction to sodium citrate (anticoagulant) Numbness or tingling of the lips, face or fingertips Frequent (5% of donors)

- Chills Presence of a metallic taste Frequent (5% of donors)

- Other\(^3\) Occasional

1 For each donation, Héma-Québec conducts global hematocrit levels, but not the iron reserves. Depending on the components collected, screening blood donors for the collection of blood samples may result in a loss of iron, and it can take several months for the body to replace this loss. The donor should ask a doctor to take or to make this test. For more information, please read the “About iron” booklet or visit Héma-Québec’s Web site (blood donation’s facts sheet) to learn more about iron reserves.

2 There is a risk of haemolysis during the procedure, although this is rare. If not treated, haemolysis can cause serious, even fatal, complications. For the donor’s protection, Héma-Québec’s staff measures close monitoring to detect haemolysis. If needed, the procedure is stopped immediately.

3 Cases of pulmonary or gas embolism have been observed in the past with less sophisticated collection equipment. The modern collection equipment used by Héma-Québec prevents the risk of embolism.