

BLOOD DONATION AND RARE BLOOD GROUPS

DIVERSITY OF BLOOD GROUPS

Blood groups are made up of specific characteristics (antigens) present in red blood cells. These characteristics constitute what is called the **phenotype**. Each person has a phenotype of their own, inherited from their parents and thus influenced by their origins.

Beyond the blood groups A, B, O, AB and RH (Rhesus) + and -, there are approximately 367 antigens divided into 41 different systems.

These differences can be compared with the multiple variations of hair colour, although they are grouped into large categories (brown, blond, red, black).

RARE BLOOD HERE BUT COMMON ELSEWHERE... OR VICE-VERSA!

In some parts of the world, there will then be a large proportion of people sharing the same blood group characteristics, while elsewhere, there may be none or very few.

For example, the phenotype *D cc ee* is present in 2% of the Caucasian population, 20% of the North African population and 70% of the Sub-Saharan African population.

The movement and mixing of populations specific to human history can thus lead to **the risk that a blood group is considered rare in a given area**. This is the case if it is present in less than 4 people out of 1,000 for the geographical area in question.

This phenomenon concerns **everyone** and can cause problems finding blood compatible with a person who needs a transfusion.

TRANSFUSION IS A MATTER OF COMPATIBILITY

A person transfused with blood containing an antigen they do not have may react against this antigen and produce substances (antibodies) that will impair the effectiveness of the transfused red blood cells.

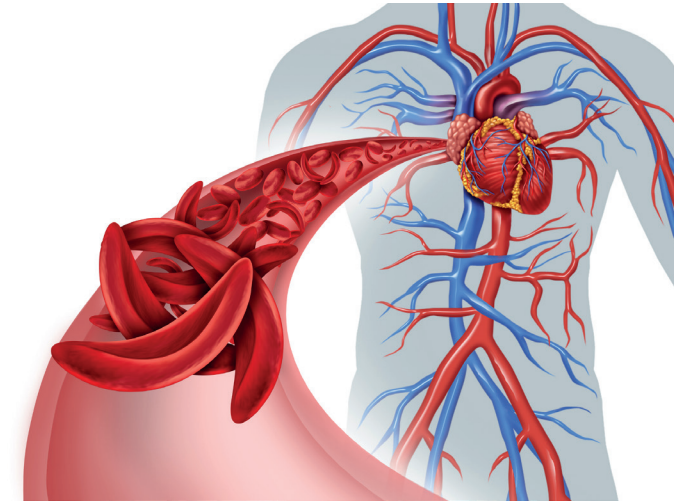
This **transfusion reaction** makes the transfusion ineffective and sometimes causes serious complications.

To avoid the matter, it is therefore essential to **transfuse the patient with so-called "compatible" blood**, meaning its characteristics (antigens) are similar to those of the patient.

- Many situations may require a transfusion: A car accident, a childbirth with complications or a caesarean section, certain surgical operations etc.
- Transfusions are also given to people undergoing chemotherapy or suffering from severe anaemia.
- Repeated transfusions are sometimes necessary for people born with genetic blood diseases, such as sickle cell disease or thalassemia. These patients often receive blood from an early age.



THE CASE OF SICKLE CELL DISEASE



Sickle cell disease is a hereditary illness characterised by **abnormal haemoglobin**, the protein that transports oxygen in the bloodstream.

It is not a rare illness: it is particularly common in populations originating from **sub-Saharan Africa**, the **Caribbean**, **India**, the **Middle East** and the **Mediterranean basin**. In Belgium, it has become the most common genetic illness due to migratory flows, and poses a real public health problem.

People with sickle cell disease can suffer from severe pain during a crisis and succumb to **serious complications, including death**. The number of patients is estimated at 6,400,000 people worldwide.

The **treatment** is based, among other things, on occasional or regular blood transfusions (for example, every 6 weeks) for 70% of patients who, because of their origins, may have a blood type considered as rare in Belgium.

WE NEED DONORS OF ALL ORIGINS TO INCREASE THE AVAILABILITY OF RARE BLOOD GROUPS FOR TRANSFUSION


In Belgium, the major part of blood donors are of Caucasian origin. The most represented blood groups for transfusions are, therefore, not always adapted to the needs of patients with a rare phenotype. That's why we are looking for donors of all origins.

If you have a rare blood type, talk about it with your siblings. Indeed, it is within siblings that the chances of finding a donor with the same characteristics are the greatest.

The mission of the Blood Service: To ensure everyone, regardless of their blood type, receives a transfusion. It depends on the mobilisation of all of us!

DO YOU HAVE RARE BLOOD, OR MAY YOU BE CONCERNED? WOULD YOU LIKE TO KNOW MORE?

We can inform you.

 0800 92 245 (freephone)
info@croix-rouge.be

WHO CAN DONATE BLOOD?

Anyone who feels healthy, is at least 18 years old, and weighs at least 50 kg.

Full information at www.blooddonors.be.

WHERE TO DONATE?

There is always a collection near you.

Please check our website: www.blooddonors.be.

OUR SOCIAL NETWORKS

Facebook : Sang pour Sang Donneur

Instagram : @donneurdesangBE



SERVICE DU SANG

Rue du Fond Du Maréchal 8 - B-5020 Suarlée

WWW.BLOODDONORS.BE

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PATIENTS NEED BLOOD DONORS OF ALL ORIGINS

Because blood groups are numerous and the result of our origins, the diversity of donors must reflect the diversity of the patients.

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