

Information for Blood Donors

Additional Information

Before reading this information, please pay attention to the information contained in the *Information for Blood Donors* (coloured folding leaflet).

Significance of voluntary and honorary blood donation

Blood donation is a significant manifestation of human solidarity, and an attempt to help the others. The donors come to the Blood Centre with a noble aim – to donate irreplaceable liquid. This is used to save lives of other people in many cases.

Based upon the recommendation of the European Council and the Ethical Code, we prefer voluntary and honorary blood donation, which means that the donors should not be motivated with the promise of financial gain.

The requirement of the whole society is to have a high-quality and safe blood. This requirement may be fulfilled only through healthy blood donors.

Information about blood and blood donation

Blood is a liquid tissue of the human body, which has many functions.

Red blood cells transfer oxygen from the lungs to tissues, and participate upon the transport of carbon dioxide from tissues to the lungs. They represent approximately 40–44% of the blood volume, and they circulate in the circulation of a healthy individual for 100–120 days.

White blood cells are a part of the immune system of the organism. They participate upon elimination of unwanted substances and bacteria, and formation of antibodies. There are approximately 500 times less of them when compared with the red blood cells. The period of survival of individual types of white blood cells is different, from several hours to tens of years.

Platelets, together with some proteins of blood plasma, they participate upon the clotting of blood. They are smaller than the red and white blood cells, and represent only a small volume of blood. The lifetime of platelets in circulation is 7–10 days.

Plasma is a liquid component of blood. Apart from water, it also contains a number of proteins, saccharides, fats and minerals. It participates upon the transport of nutrients, maintaining of metabolism and transfer of information. Plasma represents approximately 55% of the blood volume. Vast majority of plasma components are renewed within several hours or days.

Plasma proteins represent the most significant part of plasma, from the treatment point of view. About 2/3 of plasma proteins are formed with albumin, which significantly participates upon maintaining water in the vascular system. Another large group of plasma proteins are antibodies (immunoglobulins), important for immunity of the organism. The third large group are proteins responsible for blood clotting, which, together with platelets, participate upon stopping the bleeding.

Furthermore, blood plasma contains transport and regulatory proteins.

From the above-stated, it is clear that:

1. Blood is a precious liquid. In situations when the organism lacks blood, it encounters serious problems and may even die.
2. It is rather easy to obtain blood from a healthy individual (contrary to other organs), and administration of blood to patients may alleviate their problems, and even save their life. That is why transfusion services have been established, together with means of blood processing. In this way, it is possible to administer the patients only the component, which they currently need. This process decreases the risk of adverse reaction of the organism to transfusion, and makes the use of blood obtained from one donor to treat several patients possible.

Please turn over.

Types of blood collection

Collection of full blood – usually 470 ml of blood is collected into a plastic bag. The collection usually lasts less than 10 minutes. The volume of blood collected from the donor is usually replaced within several hours, plasma proteins and platelets are replaced within several days, red blood cells within 2–3 weeks. Donation of full blood is limited to 4 collections a year in men (5 collections in exceptional cases), and 3 collections a year in women (4 collections in exceptional cases).

Collection of plasma, plasmapheresis – only plasma is collected, using special instruments, which separate plasma from blood cells. The collection lasts about 45–90 minutes, and is less demanding for the donor's organism (plasma is replaced within 1–2 days). During the process, blood cells are returned back to the donor's circulation, together with physiological saline and anticlotting agent. In the course of one year, it is not allowed to collect more than 25 litres of plasma.

Collection of platelets – the collection is performed using special instruments (separators), and lasts approximately 90 minutes. The collected blood platelets are replaced within 1–2 days. Platelets are usually prepared for an individual receiver, which means that the donor is specially invited to the collection, a little time ahead (over telephone). For the collection, sufficient number of platelets and good venous access are required.

Examination of the blood donor

The blood donor undergoes a basic examination, which includes:

- analysis of previous examinations (history, questionnaire),
- measurement of blood pressure, pulse, and possibly also body temperature,
- basic laboratory analysis (complete blood count),
- examination by a physician.

Examination of the blood

A sample of blood from every donor is examined for possible presence of infection, i.e. HIV, hepatitis type B and C, and syphilis.

Also the blood type of the donor is examined during every collection, in the AB0 system, the Rh(D) sign, and examination for the presence of antibodies against red blood cells. In some types of collections, a sample of the donor's blood is also examined for the basic liver functions (ALT enzyme). In cases of plasma collections, the total protein and electrophoresis of blood proteins are examined at least once a year.

Important information

1. In cases we observe unsatisfactory test results, we inform the donor in writing. In urgent cases, we inform the donor immediately over telephone, should the donor provide us with his/her telephone number. In cases of any ambiguities, the donor may visit the physician of the Blood Centre and discuss the issues he/she did not understand.
2. The collected blood and its components will be used only if they comply with the safety and quality requirements.
3. Should you have any doubts regarding blood donations, you may ask the physician or other healthcare professionals at the Blood Centre, who will respond to your questions according to their best knowledge, or they will put you into contact with a person, who will answer your question in a qualified way.
4. If you find out that blood donation would be unsuitable for you, either due to a potential risk for your person or a risk for the receiver of your blood, or for any other reason, you may decide to withdraw from the collection process at any time.
5. The data regarding your medial condition will be protected and archived from misuse by unauthorized persons, in accordance with the law concerning personal data protection.
6. Please adhere a diet for the period of approx. 14–16 hour prior to the collection. Do not eat: fat meals – dairy products (butter, milk, cream, cheese, fat curd cheese...), meat products (salami, sausages, fried meals, soups, boiled pork, goulash...), chocolate, nuts, sweet fatty pastry. It is also necessary to refrain from drinking alcoholic beverages. We encourage you to have sufficient intake of fluids – 1.5–2 litres (tea, coffee, fruit juices, mineral water). It is also recommended to eat fruits, vegetables, non-fat pastry, marmalades, pasta without a fat dressing, stewed lean meat, boiled potatoes, all this without grease. It is also not suitable to starve before the collection.