

## Blood donation – facts and tips

### Blood donation:

A voluntary medical procedure through which blood, or one of its components, is transfused from a healthy person to an ill person who needs blood. This is needed for millions of people every year, and the process is used in surgeries or accidents or for some diseases that required blood transfusion.

### Types of blood donation:

- Full blood: this is the most common type in blood donation, which includes all components of the blood (red blood cells, plasma and platelets)
- Platelets
- Plasma
- Red blood cells

### Importance of blood donation:

Blood transfusion is a life saving procedure, and is used in cases such as:

- Complications in pregnant women, such as bleeding before, during or after giving birth.
- For patients under surgeries such as cardiovascular surgeries and organ transplants, etc.
- People with blood diseases
- Injured people in accidents
- Cancer patients

### Conditions for blood donation:

- The donor must be healthy and does not have any communicable diseases.
- The donor must be 18 – 65 years of age
- The donor's weight may not be less than 50 kg.
- Hemoglobin rate must be 14 – 17 g. in men and 12 – 14 g. in women
- Pulse rate must be 50 – 100 per minute
- Temperature may not exceed 37C
- Blood pressure rate must be less than 120/80 mmhg

#### **Amount of donated blood:**

A healthy adult may donate 450 – 500 ml. of blood without any concerns or health risks, and may donate every two months, without exceeding five times per year.

#### **Benefits of blood donation:**

- Increases the stem cell activity to produce new cells (red and white blood cells and platelets)
- Increased blood circulation
- Blood donation reduces iron in the blood – which is considered one of the main causes of cardiac diseases and arteries' blockage.
- Studies have proven that those who donate blood at least once a year are less prone to circulatory diseases and blood cancers.

#### **Cases where blood donation is prohibited:**

- People less than 18 years
- People with communicable diseases such as AIDS, Hepatitis B and C, Syphilis, malaria
- People with genetic blood diseases
- People who suffer acute anemia
- People suffering from chronic diseases such as diabetes, hypertension and cancers.

#### **Tips after donating blood:**

- After donating blood, take some rest and have a light snack, and you can leave the donation center after 10 – 15 minutes.
- Avoid excessive physical efforts or lifting heavy objects for 5 hours after donation
- If you feel dizzy, it is advisable to lie down on the back and lift the legs.
- Drink plenty of fluids.

#### **Steps taken to ensure the safety of transfused blood:**

- Passing the medical test after answering questions related to the medical history, while meeting the general blood donation conditions
- Conducting accurate tests and analyses of each blood unit to identify the group and ensure that it's free of communicable diseases such as AIDS, Hepatitis B and C, Syphilis, malaria

- Conducting compatibility tests between the transfused blood units and the patient's blood, to ensure the safety and effectiveness of the blood.
- Using filters for white blood cells.

### Why donate blood?

Donating blood is a noble humanitarian act as it can save the lives of thousands of patients in dire need of blood. In fact, one of every ten patients admitted to hospitals need blood transfusion, especially those suffering from malignant or acute diseases, as well as those involved in major accidents that caused the loss of large amounts of blood. This also includes many patients undergoing major surgeries. Moreover, blood components are used in the treatment of several serious diseases.

### What are the conditions for blood donors?

Any healthy person whose age is not less than 17 years or more than 65 years, with hemoglobin rates exceeding 12.5 grams and weight no less than 50 kilograms. Blood pressure must be between 110/60 and 140/90 with regular heartbeat rate of 50 – 100 beats per minute. Body temperature may not exceed 37.5 degrees.

### What's the minimum period between two donations?

The shortest allowed period is eight weeks, and donation frequency may not exceed five times per year.

### Does blood donation cause any dangers?

The whole donation process is conducted by well trained staff and supervised by a specialized doctor. Blood bags and syringes are used for one donor only, which means a donor is never exposed to infections.

### How much blood is donated?

The human body contains an average of five liters of blood, while the donated amount is estimated at 4550 ml, which is only 8% of the average blood volume in an adult. This does not affect the normal activity of the donor at all.

### What are the WHO standards for blood donation?

Specific process to select donors, including pre-donation consultations and medical screening each time.

Testing all blood units to ensure they are free of blood borne viruses.

Optimal use of blood.

### How does the body replenish the donated blood?

The blood replenishes the donated blood within a few hours, while blood cells are replenished in a few days without the need of a specific diet.

### What is the benefit of blood donation for the donor?

- Assurance of health, as each blood donor is subject to a medical check and accurate lab tests.
- It is proven that blood donation reduces the risk of heart diseases.
- Blood donation alerts the stem cells (blood formation center) to replenish blood cells with new ones with better functionalities.
- Helping others, as blood donation is a form of social solidarity that spreads love among people.
- Reward, as Allah SWT says “And whoever saves one – it is as if he had saved mankind entirely”

### Clinical Health Education Department

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