



E-Bulletin

Special Issue



Issue 45

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The E - Bulletin is a service provided from the in-house team of physicians (Specialists, GP's & the CEDARS Training Center) at the **CEDARS – Jebel Ali International Hospital** in order to raise awareness about health issues.

Give blood. Save lives.

Saving another person's life is a noble act. Each one of us has the capability to do that by sharing our blood to those who need it. Voluntary blood donation is safe and also beneficial for the donors themselves.

It is known that someone needs blood every three seconds. It maybe a child with Thalassaemia or a person involved in a car accident. Keeping adequate blood supply is a challenge since it only has a shelf life of 42 days. In Dubai, Thalassaemia patients consume 47% (13,976 units in 2009) collected through Dubai Blood Donation Center.

Blood carries vital nourishment to all the tissues and organs of the body. Without blood the tissues die of starvation. In the womb, for example, the mother's blood ensures that the foetus is supplied with oxygen and nutrients and benefits from the mother's inbuilt defenses against diseases. The average person has 25 billion red blood cells, and in a normal healthy person cells are constantly regenerated in the body.

NORMAL RED BLOOD CELL COUNT

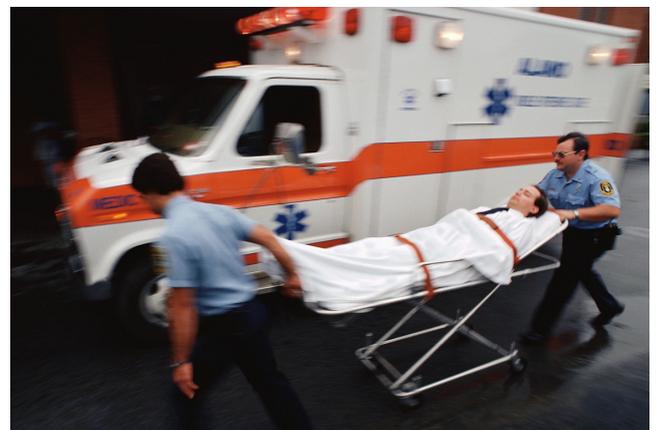
Male: 4.32-5.72 trillion cells/L*
(4.32-5.72 million cells/mcL**)

Female 3.90-5.03 trillion cells/L
(3.90-5.03 million cells/mcL)

Who can donate blood

There are several guidelines that are followed to know if a person is eligible for donate blood. The donor is examined and asked specific questions about their medical history to make sure that donating blood is not hazardous to their health. The donor's hematocrit or hemoglobin level is tested to make sure that the loss of blood will not make them anemic. This check is the most common reason that a donor is ineligible. Pulse, blood pressure, and body temperature are also evaluated. Elderly donors are sometimes also deferred on age alone because of health concerns. The safety of donating blood during pregnancy has not been studied thoroughly, and pregnant women are usually deferred.

Before donation a questionnaire is given to the donor to ask some health related questions and history.



Who can donate blood?

- Individuals in good health
- At least 17 years of age. Provided you are in good health the upper age limit is 65
- Weigh at least 50kg (110 pounds).
- Have not donated blood in the last 90 days

You are not eligible to donate blood frequently if you:

- Have ever used self-injected drugs (non-prescription).
- Have ever had hepatitis B or hepatitis C.
- Are in a high-risk group for AIDS.
- Are a diabetic on medication.

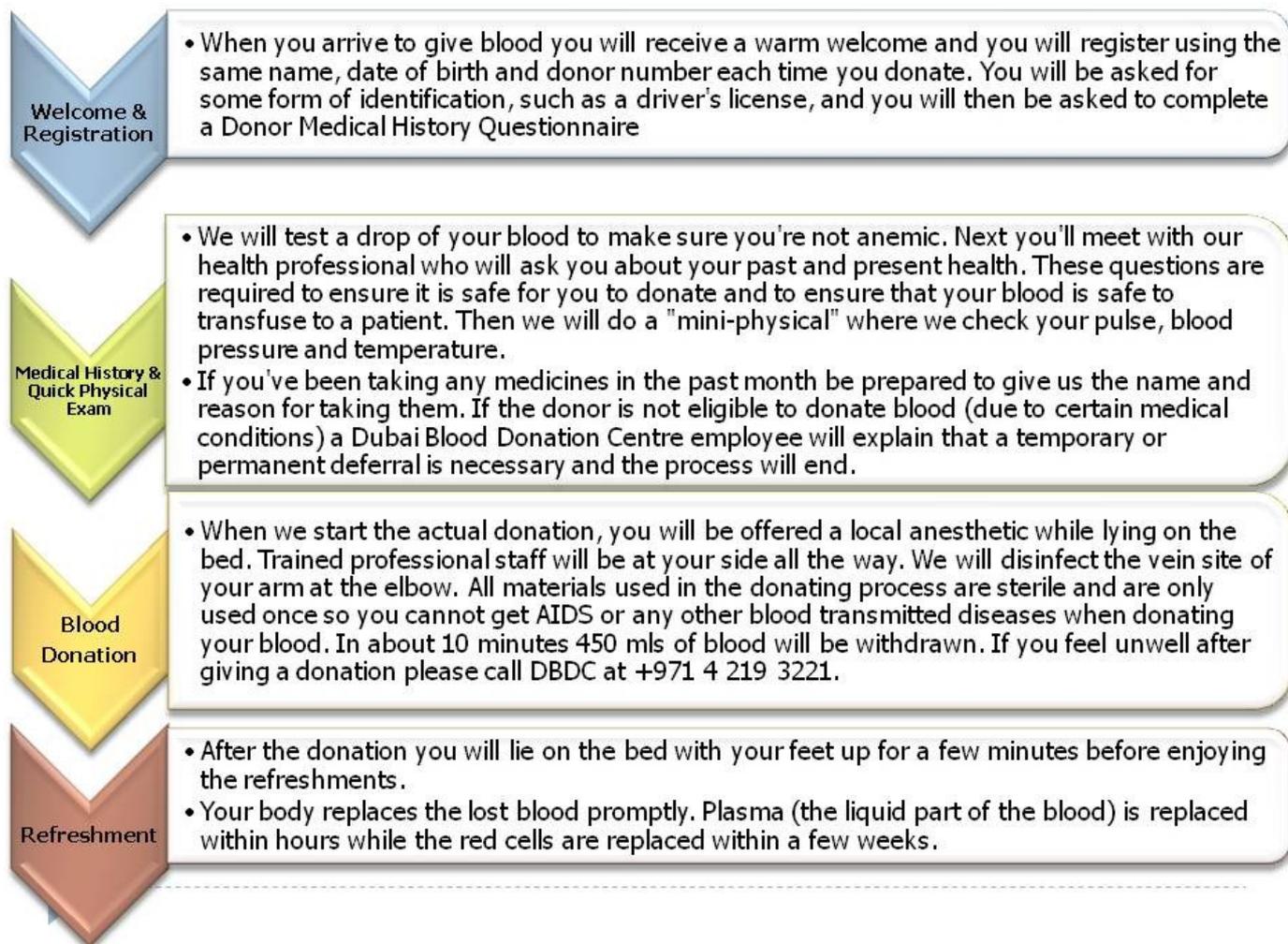
You are not eligible to donate blood if you:

- Are sick (cold, flu, sore throat or diarrhoea).
- Have taken antibiotics within the last five days.
- Have had dental work within the last three days.
- Are anemic (Iron Def. Anaemia).
- Are pregnant.
- Have had any ear/body piercings, or have had a tattoo, within the last year.
- Have chronic health conditions such as asthma, high blood pressure or diabetes

CEDARS - Jebel Ali International Hospital, Dubai, UAE. Tel: 04-881-4000 Fax: 04-881-4001

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Donation Process



*Never give blood just to take a test. If you do, you risk infecting other people.
The donation process for whole blood takes about one hour.*

What happens to the blood

This blood bag will then be taken to be separated to blood components where each component has its use & need.

Components	Uses
Packed Red Blood Cells	which is used as the treatment of choice in most transfusions & occasionally for the treatment of acute Blood Loss or Exchange transfusion.
Platelet concentrate	For those patients having low platelet count or defect in platelet function
Plasma	Used for the replacement of the coagulation factors in cases of Hemophilia or liver disease & DIC.

The other method to give blood is to draw blood from the donor, separate it using a centrifuge or a filter, store the desired part, and return the rest to the donor. This process is called APHERISIS, and it is often done with a machine specifically designed for this purpose. This process is especially common for plasma and platelets

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Transfusion transmitted infections

After donation, the blood undergoes a strict sourcing to detect any units that can transmit infection as HIV, Hepatitis & Syphilis. Recently some other screening tests are done to widen the range of safety for the blood bag. A variety of other tests for transfusion transmitted infections are often used based on local requirements.

As in UAE, Blood banks are there only in the governmental places where other hospitals can only take from then we can ensure the maximum level of quality during processing, separating & screening the blood bags.



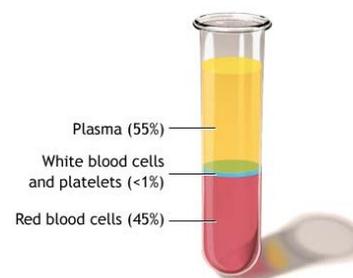
Recovery and time between donations

Donors are usually kept at the donation site for 10–15 minutes after donating since most adverse reactions take place during or immediately after the donation. Blood centers typically provide light refreshments or a lunch allowance to help the donor recover.

The needle site is covered with a bandage and the donor is directed to keep the bandage on for several hours. In hot climates, donors are advised to avoid dehydration (strenuous games, alcohol) till few hours after donation.

Donated plasma is replaced after 2–3 days. Red blood cells are replaced by bone marrow into the circulatory system at a slower rate, on average 36 days in healthy adult males. In one study, the range was 20 to 59 days for recovery.

These replacement rates are the basis of how frequently a donor can donate blood.



Donor health benefits

In patients prone to iron overload, blood donation prevents the accumulation of toxic quantities.

Donating blood may reduce the risk of heart disease for men, but the link has not been firmly established and may be from selection bias because donors are screened for health problems.

Repeated blood donation is effective in reducing blood pressure, blood glucose, HbA1c, low-density lipoprotein/high-density lipoprotein ratio, and heart rate. ❖



Medical Consultant for this special issue



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Dr. Amal Mohamed Ameen Amer has previously worked in different hospitals and laboratories in Egypt as clinical pathologist. She also worked as a blood banking doctor in National Blood Transfusion Center, Egypt

She received her Bachelor Degree in Medicine and Master Degree in Clinical Pathology in Ain Shams University, Egypt.

Dr. Amal speaks fluent English and Arabic.

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