

Rotary Club of Belvedere Gardens Calcutta

CLUB NO. 31255

R.I. DIST 3291



Fragrance

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VOL. XVI NO.:30

MEETS EVERY SUNDAY : THE ASTOR HOTEL AT 11.00 AM

DATED 9TH MAY, 2010

Blood Donation

Why do we need to donate blood?

There is tremendous demand for blood in hospitals. Many patients suffer because they are not able to cope with the loss of blood.

Blood that is donated is basically used to:

- Replace blood lost during injury as in accidents.
- Replace blood loss during major surgeries.
- Help patients with blood disorders like haemophilia, Von Willebrand's disease survive.
- Help burns patients receive plasma, that may be critical for their survival.
- Raise haemoglobin levels (through transfusions) in patients with chronic ailments like kidney diseases, cancer and anaemia.

Thus, blood donation is of prime importance, as it can help save the life of a patient.

To donate blood, some basic health conditions have to be met by donors. They are:

- The donor should be above 18 years and below 60 years of age.
- The donor should have a haemoglobin count that is not less than 12.5 g/dl.
- The donor should weigh not less than 45 kgs.
- The donor should have normal body temperature at the time of donation.
- The donor should have normal BP at the time of donation.
- The donor should be free from any disease at the time of donation.

The following categories of people should avoid giving blood:

- 1) Pregnant or lactating women, or those who have recently had an abortion.
- 2) Persons who are on steroids, hormonal supplements or certain specified medication
- 3) Persons with multiple sexual partners or those who are addicted to drugs
- 4) Persons who have had an attack of infection like jaundice, rubella, typhoid or malaria.
- 5) Persons who have undergone surgery in the previous six months.
Persons who have consumed alcohol in the 24 hours prior to donation.
- 6) Women should avoid donation during their menstruating period.
- 7) Those who have undergone various vaccinations should avoid donation for the corresponding period specified below :

Type of Vaccine The period in which donation should be avoided.

Hepatitis B	6 months
Live vaccines	2 weeks
Killed vaccines	48 Hours
Rabies	1 year

8) Persons with any systemic disease like heart disease, kidney disease, liver problems, blood disorders or asthma should NOT donate blood.

9) Persons suffering from infections transmitted through transfusions like HIV, Hepatitis, Syphilis etc should Not donate blood.

At the time of donation, only 350 ml of blood is taken. An average person has 5-6 litres of blood in the body. In terms of volume the loss is corrected in 24-48 hours by the body. The red cell count is corrected in about 56 days.

The actual bleeding time is about 5-6 minutes. There will be a medical check up before this and the donor is advised some

rest (for 5-10 minutes) and given some refreshment after donation. The whole process takes about 30 minutes. The minimum time advised between two donations is 3 months. This gap helps blood regain the normal haemoglobin count.

The health of the donor will not suffer because of the blood donated. In fact, the bone marrow is stimulated to produce new cells. However if conditions are not hygienic, the donor may be exposed to infection.

Precautions :

It is important to be sure that disposable needles are used for bleeding. An important precaution is from Human Immunodeficiency Virus (HIV), the virus that causes AIDS. The virus can be transmitted through blood transfusion, so all donor programs are required to question donors about possible HIV exposure, and to test donated blood for this virus. There is a rare form of HIV called Type O that is found in western Africa. The available tests for HIV do not always detect the Type O strain. This means that blood programs must take special precautions to keep this virus out of the blood supply by not taking blood donations from those who have been where the virus is found.

It is possible that the tests used to screen donated blood may someday be improved so that they detect Type O HIV. When that happens, restriction on donations may be removed.

The blood that is donated is screened for the following diseases/infections:

- HIV, Hepatitis B & C . Syphilis .
- Malaria

The blood is grouped and stored either as whole blood or as components like Packed red blood cells, plasma or platelets. This is then sent on demand to hospitals.

Grouping of blood :

Blood is composed of cells suspended in a liquid. The liquid portion is the plasma, from which therapeutic fractions and derivatives are made.

Suspended in the plasma are three types of cells:

Red cells: These carry Oxygen

White cells: These fight infection

Platelets: These stop wounds bleeding

The most common type of grouping is the ABO grouping. Red Blood Cells have a protein coat on their surface which distinguishes them. According to this blood is divided into four groups:

A (A protein is present), B (B protein is present), AB (AB protein is present) and O (No protein is present).

There are subtypes under this grouping (listed as A1, A2, A1B or A2B...), some of which are quite rare.

Apart from this there is another protein which plays an important part in the grouping of blood. This is called the Rh factor. If this is present, the particular blood type is called positive. If it is absent, it is called negative. Thus we have the following broad categories:

- | | | |
|---------------------|---------------------|---------------------|
| A1 Negative | A1 Positive | A1B Negative |
| A1B Positive | A2 Negative | A2 Positive |
| A2B Negative | A2B Positive | B Negative |
| B Positive | O Negative | O Positive |



Amazing Theorem

Equation 1

Human = eat + sleep + work + enjoy

Donkey = eat + sleep

Therefore,

Human = Donkey + work + enjoy

Therefore,

Human - enjoy = Donkey + work

In other words,

Human those who don't enjoy = Donkey that work

===== ===

Equation 2

Men = eat + sleep + earn money

Donkeys = eat + sleep

Therefore,

Men = Donkeys + earn money

Therefore,

Men - earn money = Donkeys

In other words,

Men that don't earn money = Donkeys

=====

Equation 3

Women = eat + sleep + spend

Donkeys = eat + sleep

Therefore,

Women = Donkeys + spend

Therefore,

Women - spend = Donkeys

In other words,

Women that don't spend = Donkeys

=====

To Conclude :

From Equation 2 and Equation 3

Men that don't earn money = Women that don't spend.

So, Men earn money not to let women become Donkeys! (Postulate 1)

And, Women spend not to let men become Donkeys! (Postulate 2)

So, we have?

Men + Women = Donkeys + earn money + Donkeys + spend money

Therefore from Postulates 1 and 2, we can conclude,

Man + Woman = 2 Donkeys that live happily together!