



Lions Club of Pune Chattushrungi



*Blood Donor  
is a  
Silent Hero*

***Lion Dr. Nandkishore Jaju***

***District chairperson***

*Blood Donation Awareness*

*LCI District 3234 D2*



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- Blood is the most precious and essential element of the body.
- Adult human body contains approx. 5 litres of blood which is constantly circulating and performing its functions “par excellence”.



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## रक्त कुठे काय करते ?

- Blood Carries oxygen, glucose, proteins , fats, vitamins, minerals, hormones, enzymes and electrolytes.
- Blood removes toxic products like carbon dioxide, urea, creatinine etc.
- Defences against bacterial and viral infection.
- Maintains electrolyte balance and body Temperature.



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## Facts

- Any acute loss of blood means danger to the life.
- **Human being is the only source of blood.**
- Blood cannot be obtained from:

Animals or Birds

Air or Ocean

Mines or Mountain

Plants or Factories





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Blood is required during

Heart surgery, Kidney transplant, Pregnancy, Abortion, Thalassemia, Exchange transfusion in new-born , Burns , Cancer therapy etc.







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Blood is required during

Natural calamity, Accidents, Terrorist Attack ,etc.





## WHO Policy

- Voluntary
- Non Remuneration (free)
- Safe
- Adequate
- Available in vicinity and in all the seasons
- Optimum use of Blood. (Blood Components)
- Appropriate use of Blood.
- Fortunately it is followed all over the world despite any religion, politics , prosperity or literacy.



## Blood Donor Criteria

- **Age: 18-65 years ,      Weight: > 45 Kg.,      Hb: >12.5 gm.**
- **Temperature, Pulse, Respiration & Blood pressure should be normal**
- **Do inform Doctor, if you had —**
  - Jaundice, Malaria, AIDS, Typhoid, Asthma, Epilepsy,
  - Haemophilia, Cancer, Heart disease, Diabetes.
  - Tattoo, Acupuncture or Ear piercing recently.
  - Major operation or blood transfusion in last 1 year.
  - Recent Vaccination for Rabies, Covid-19 etc.
  - Person with Diabetes controlled with oral medicines can donate





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## Your Fitness and Consent

Doctor Checks you for

- Weight, Haemoglobin & Blood Group
- Temp, Pulse, Respiration & Blood pressure
- Short medical examination

***Your consent for blood donation is mandatory***



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## Facts about Blood Donation

You can donate blood every 3 months.

In a span of 18-65 years you can donate blood 188 times.

**That's the strength of your body.**

You donate 350 / 450 cc Blood at a time.

It takes about 5-8 minutes to donate blood.

You do not feel weak, ask any blood donor.

Majority of the blood is recovered within 48 hours.



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## After Blood Donation

- Take rest for 5 minutes on the same coach.
- Do have a cup of tea and biscuits after blood donation.
- Your stay for 15 minutes with blood bank team is a matter of your care.
- You can return to your work within an hour.



## Safety of Patient is Top Priority

Each blood bag is tested for –

- ❖ Hepatitis B and Hepatitis C
- ❖ AIDS (HIV 1 and 2)
- ❖ Venereal Disease (Syphilis)
- ❖ Malaria.

In case of positive result, the blood donors are informed and counseled.

Any Blood bag positive for these diseases is rejected and destroyed as per protocol.

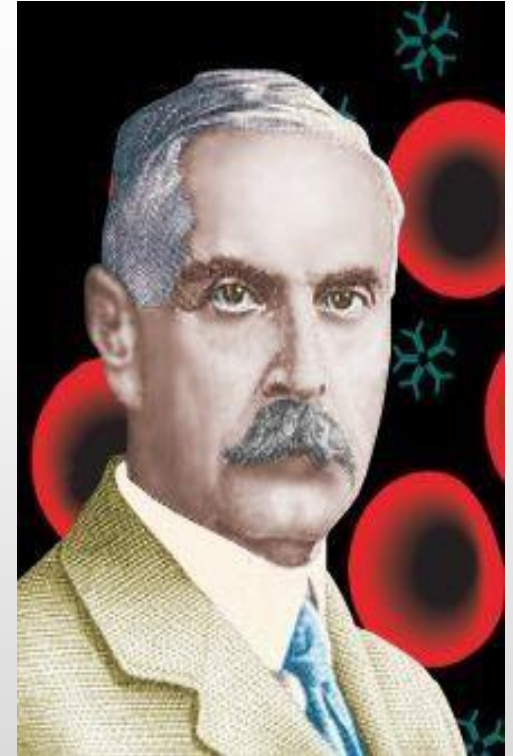


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## Dr Karl Landsteiner

- Although our ancestors knew the immense value of blood, blood transfusion was not successful before the year 1900.
- **Dr Karl Landsteiner** discovered the “ABO” blood group system in 1901 and blood transfusion became the great success, He was rightly awarded “Nobel prize “ in 1930.
- So far more than 300 Crore blood bags are transfused in the world







## Blood group

|        |        |     |
|--------|--------|-----|
| A +ve, | A -ve  | 23% |
| B +ve  | B -ve  | 32% |
| AB +ve | AB -ve | 7%  |
| O +ve  | O -ve  | 38% |

- Bombay group. .... Rare
- Blood group “O -ve” is the **UNIVERSAL DONOR.**



# Compatibility of Blood Groups

Cross matching is mandatory before blood transfusion.

|       |    | PATIENT |   |    |   |
|-------|----|---------|---|----|---|
|       |    | A       | B | AB | O |
| DONOR | O  |         |   |    |   |
|       | AB |         |   |    |   |
|       | B  |         |   |    |   |
|       | A  |         |   |    |   |





## Blood Storage

Blood is stored at 4°C (2-6 °C) under precise monitoring in specially designed Refrigerator.

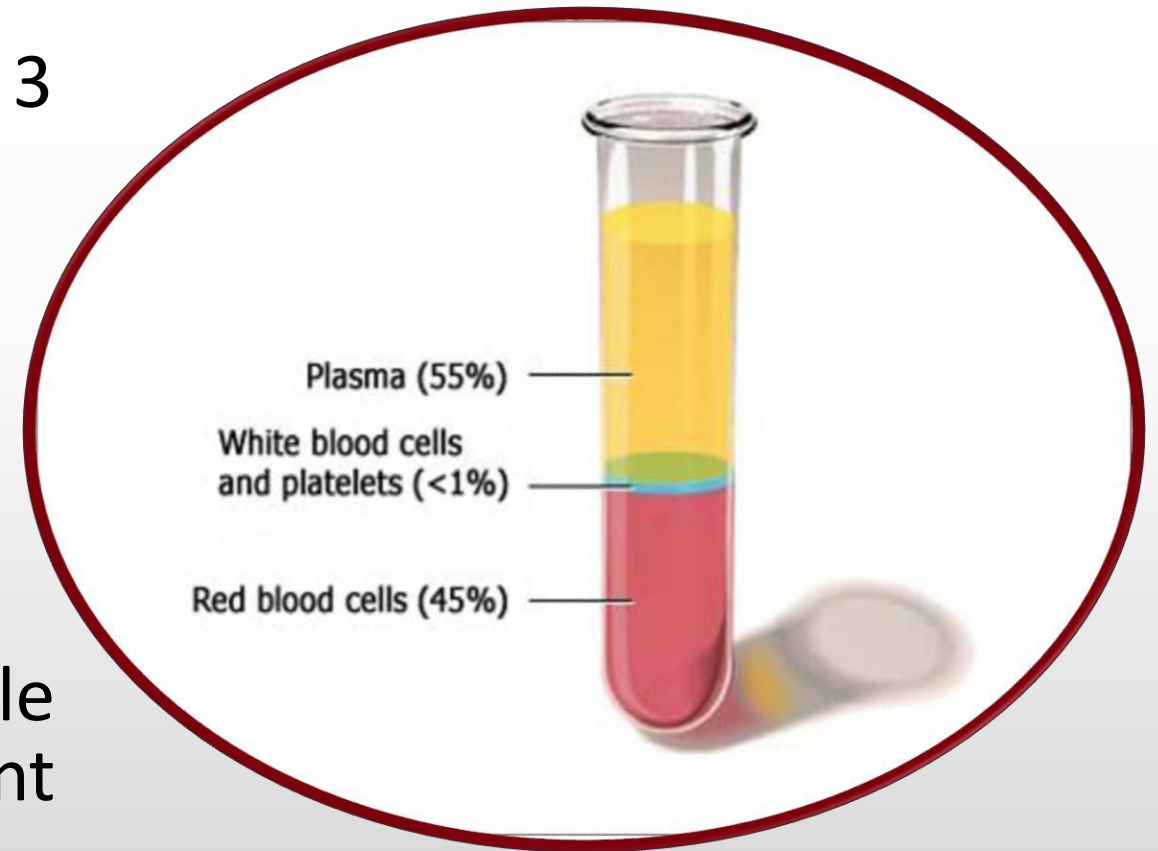
Blood can be stored for 35 days in CPD-A solution

Blood can be stored for 42 days in SAGM solution.



## Blood Components

- Whole blood can be separated in 3 components
  1. Packed Red Cells
  2. Platelets (& W B Cs )
  3. Plasma (& Cryoprecipitate)
- In advanced countries 99% of whole blood undergoes blood component separation, saving many more lives.





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## Use of Blood Components

### Packed Red Cells

- Used for Major Operations, Abortion, Delivery, Thalassaemia, Severe Anaemia,
- Kidney Dialysis, Cancer etc.







## Use of Blood Components

### Plasma

- Approx. 150- 200 cc plasma is obtained from each bag.
- Plasma is widely used for -
  - Treatment of Burns,
  - Manufacture of Albumin,
  - Preparation of Antibodies for Rabies, Tetanus, Snakebite, Rh incompatibility and Covid19.
- Plasma can be stored for 1 year in frozen state.

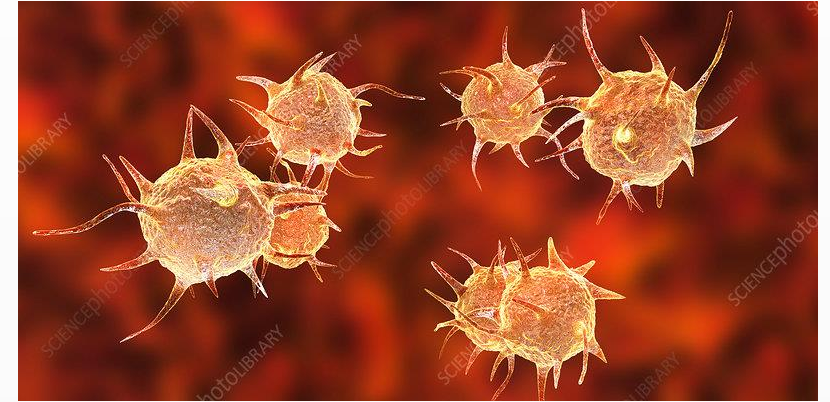




## Use of Blood Components

### Platelets

- Platelets play great role in sealing the ruptured blood vessels and thereby stops the bleeding.
- From each blood bag 30 - 50cc of platelets are separated.
- Platelets are used in – Cancer Therapy, Dengue, Liver transplant etc.





## Latest Technology of Harvesting

### Plasmapheresis

- Plasmapheresis is harvesting plasma from the whole blood and returning rest of the blood, by special machine called cell separator.
- One can donate 500 cc of plasma at a time safely and the procedure takes about 90 minutes.
- One can donate Plasma at the interval of 15 days.



## Use of Blood Components

### Plateletpheresis

- It is harvesting of platelets from the whole blood and returning rest of the blood to the donor by cell separator.
- In a single procedure, platelets equivalent to 6 bags of whole blood can be harvested.
- One can donate platelets (SDP) every 15 days,
- But limited to 24 times per year.



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Can you Use your own Blood For your operation?

Yes !!!

- It's called "Autologous transfusion"
- You can donate blood for yourself prior to operation with some protocol.
- The safest remedy.





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## Blood Requirement

Regular Blood donation by 1% of population fulfils the annual requirement of our country.

The clinical demand for India is estimated at 14.6 million whole blood units.\*

**There is a shortage of 1 million whole blood units in India**

*\* Figures are per National level estimation 2022 Study*



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## Why should I donate blood?

Because ...

Some serious patient needs Blood.

You won't lose anything.

You are the only source of Blood.

You are young and healthy.

You care for others.

**Blood Donation is a Noble deed**



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Blood does not differentiate between  
Ram

Rahim

Ranjit

Rodrigues

Rupchand

Rahul

Ratan

Hindu – Muslim – Sikh – Isai – Jain – Buddha – Parasi .....



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वसुधैव कुटुम्बकम्  
The World is a Family

*-Maha-upanishadh Adhyay, 6 , Mantra 71*



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**Somebody's Blood Saved My Life**

**Was it yours ?**

A photograph of a sunset over the ocean. The sun is a bright white circle in the upper right, casting a long, soft glow across the sky. The sky transitions from a pale yellow near the sun to a deep orange and then a dark blue at the horizon. The ocean in the foreground is dark blue with gentle, rippling waves that catch the light from the setting sun, creating a shimmering effect. The overall mood is peaceful and inspiring.

Donate blood today.

*Today is the day!*





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# Thank You

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