

WHY YOU SHOULD DONATE BLOOD ?

- There is an **ever-present need** for blood transfusions and the **demand usually exceeds the supply**. The shortage of blood is particularly **most acute during summer** (vacation) months.
- Blood donation is a **precious, life-saving gesture** made by socially-conscious, humanitarian individuals

Each unit can be used to save lives of not one but upto six or eight different patients. Blood collected at the Apex Blood Bank is separated into components viz. Red cell concentrate, Platelet concentrate, Plasma and Cryoprecipitate. Each of these has specific uses and is transfused to different patients according to their needs. e.g. Red cell concentrates are used for patients with anemia's, platelet concentrates or cryoprecipitate for patients with bleeding disorders, and plasma for patients with disseminated intravascular coagulation. Plasma is also fractioned further into more products viz Albumin, Gamma globulin and Factor IX complex concentrate, at the NPFC. These are used to treat more patients.

- **Blood is perishable** has a limited shelf-life. Therefore there is a **need for regular blood donation**, to ensure a constant, uniform supply of blood to patients.
- **Blood donated is not "lost"** since the **body quickly replaces the blood** given thus making the donor eligible for repeated donations at approximately three months interval.
- All FDA-licensed blood banks ensure **safe blood donation procedures** whereby there is **no risk of developing diseases like Hepatitis or AIDS by "donating" blood**. All the blood collection sets as well as the lancets used for testing donors are completely sterile, used just once for that donor and are thereafter discarded.
- All voluntary blood donors are given a card which can be utilized for obtaining one unit of blood, for himself / herself or their immediate dependent relatives. This card is valid 6 month.

Conditions which make donors temporarily unfit for donation

- a. Jaundice: Defer for 1 year after full recovery.
- b. Malaria duly treated : Defer for 3 months (endemic), for 3 years (non endemic)
- c. Typhoid : Defer for 1 year after full recovery
- d. Surgical Operations: for 1 year after any major operations, for 3 months after minor operations.
- e. Transfusion of blood or its products: for 6 months after receiving the transfusion.
- f. Immunizations: usually for 4 weeks after vaccinations with anti tetanus, anti venom, anti diphtheria, and anti gas gangrene. For yellow fever defer for 15 days.
- g. Pregnancy: Defer till one year after childbirth.

- h. Drug ingestion: If on any medications, please inform the medical officer. Anti arrhythmic, anti convulsants, cytotoxic drugs Permanently defer. Antibiotics (oral) - defer for 3 days. Injection Corticosteroids- defer for 7 days after last dose.
- i. Cough, cold, fever: Please inform medical officer who will decide the period of deferral.
- j. Tuberculosis: Defer for 5 years after cessation of symptoms and treatment.
- k. Blood Donation: Defer for 3 months after blood donation.
- l. Abortion: Defer for 6 months after abortion.
- m. Tattoo: Defer for 6 months after tattoo.
- n. Rabies vaccination: Defer for 1 year.
- o. Hepatitis in family or close contact: Defer for 1 year
- p. Pyelonephritis and acute cystitis : defer for 6 months after cessation of treatment and symptoms
- q. Dental surgery : defer for 6 months after dental surgery

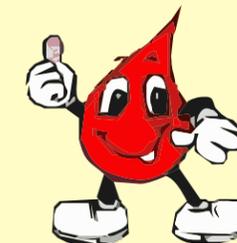
Conditions which make donors permanently unfit for donation

- a. Severe allergic diseases
- b. Diabetic patients
- c. Myocardial infarction
- d. Hypertension
- e. Active Tuberculosis
- f. Renal diseases
- g. Venereal (Sexually Transmitted) Diseases
- h. Malignancy
- i. Epilepsy
- j. Two or more Vasovagal (fainting) attacks after blood donation
- k. High risk individuals for HIV
- l. Known carriers of Hepatitis B virus
- m. Open Heart Surgery, By pass surgery
- a. History of active symptoms of heart disease / Coronary artery disease
- b. History of Cardiac medication
- c. Chronic liver disease with impaired function
- d. Asthmatics on steroids
- e. Schizophrenia
- f. Leprosy
- G. Polycythemia Vera



APEX WELCARE TRUST

APEX COMPONENT BLOOD BANK



“रक्तदान महादान”



आपकी सुविधा के लिए
24 घण्टे सेवा उपलब्ध

Blood bank plays important role in modern health care .

Blood transfusion is a life saving modality in critical situations like accidents, surgeries and intensive care units. Another important aspect of blood transfusion, it extends life span of children with transfusion dependent blood disorders like Thalassemia, Sickle Cell Anemia and marrow failure syndromes. Blood products are also used to stop simple or critical bleeds, in coagulation blood disorders. Major technological advances over the last thirty years in blood bank's systems of blood collection, component separation, storage, virus detection, issuing compatible blood products made the role of blood bank in society today very much essential.

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Objectives of the Blood Bank

The primary aim of the Apex Blood Bank is to provide quality medical care to patients by dispensing safe and good quality blood and its components for transfusions, to promote voluntary blood donation and to discharge its responsibility to donors who provide blood.

The main functions of the department is :

1. Proper blood collection facilities

- By proper donor selection
- Safe procedures for bleeding donors
- Promotion of voluntary blood donations and motivation of donors to return for donation
- Ensuring confidentiality of donor record
- Providing information to donors
- Optimal testing, preservation and utilisation of blood
- Providing properly grouped and cross matched blood

2. Detection of transfusion transmitted infections

- Providing specially processed blood for patients requiring repeated transfusions
- Ensuring optimal utilisation of blood by preparing blood components
- Proper preservation of blood
- Prompt and appropriate disposal of unsafe blood
- Promptly provide blood, round the clock

Optimal Blood Testing, Preservation and Utilisation of Blood

These are the other major functions of the Blood Bank and include the following :

Providing properly grouped and crossmatched blood.

All blood units are processed for cell and serum grouping by an automated computerised microwell blood grouping system. Serum grouping confirms findings of cell grouping and also detects rare atypical antibodies. Confirmatory testing (Du test) is done on all units which test as Rh negative to rule out weak or partial Rh groups.

Detection of transfusion transmitted infections - HIV, Hepatitis B, Syphilis and Malaria



Each and every blood unit collected is tested. Detection of anti-HIV-1 & -2 and Hepatitis is done by sensitive ELISA kits using automated washers and computerised ELISA readers.

Providing specially processed blood for patients requiring repeated transfusions

Saline washed packed red cells are prepared after special extensive crossmatching tests to detect atypical red cell antibodies which can occur in these patients. These units have a shelf-life of only 24 hours.

Ensuring optimal utilisation of blood by preparing blood components

Almost all the blood collected is separated into the various blood components as depicted in the process flow chart below. The Blood Bank has sophisticated equipments viz. Special large refrigerators programmable centrifuges and plasma expressors as well as experienced staff for the separation of these components in the closed-system sterile PVC blood bags.

Proper preservation of blood

All blood units are preserved at 2-6 degrees centigrade, in a well-designed walk-in cooler (Cold Room) equipped with a continuous temperature monitor and alarm facility. Plasma and Cryo-precipitate are preserved in large freezers maintaining temperature below -30° C, while platelet concentrates are kept on a special rotator for continuous slow agitation which is essential for their proper functioning.

Prompt and appropriate disposal of unsafe blood

All units of blood suspected to harbour infectious agents or be sub-optimal for any reason are carefully autoclaved at the Blood Bank and destroyed by incineration at the Municipal incinerator.

Promptly provide blood, round the clock

The Blood Bank crossmatches and issues blood continuously, all the twenty-four hours, thus making it available during all the emergency hours.

Storing Blood Safely

Proper storage of whole blood and **blood components** is essential

Red blood cells must be stored under refrigeration and can be kept for a maximum of 42 days or frozen for up to 10 years.

Platelets can be stored at room temperature for a maximum of 5 days.

Fresh frozen plasma can be kept frozen for up to 1 year.

Cryoprecipitate AHF made from fresh frozen plasma can

be stored frozen for up to 1 year.

Granulocytes (white blood cells) must be transfused within 24 hours of donation.

Facts About Blood Donation

Voluntary blood donation motivated solely by humanitarian considerations is undoubtedly the safest and most effective way of providing blood of assured quality.

Blood can be donated by socially-conscious individuals for its use by unknown patients (Voluntary Blood Donors) or by relatives of patients who require blood (Replacement donors)

The Propagandas Officer, Medical Social Workers and doctors at the Blood Bank perpetually strive to encourage voluntary blood donation.

WHO CAN DONATE BLOOD

General conditions of the donor

- a. Age : 18 to 60 years
- b. Weight : Not less than 45 kgs
- c. Hemoglobin percentage : Not less than 12.5 gm %

AREA WISE DISTRIBUTION OF

APEX COMPONENT BLOOD BANK

1. Reception & donor registration
2. Medical examination & doctor room
3. Blood collection area
4. Donor refreshment area
5. Laboratory 1
6. Laboratory 2
7. Store cum records room
8. Sterilization cum washing area



The department of Transfusion medicine provides blood support to the patients. It collects blood from voluntary and replacement donors only. Strict donor selection criteria is followed by the hospital to ensure good health to the donor and good quality blood.

The Blood collection area is well equipped with all facilities required

Blood collection monitor D601 prevents the occurrence of clotting in the transfusion apparatus, anticoagulant solution is mixed with whole blood when it's taken from donor.

Blood donor couches, trend mill beds easy to minimize vasovagal attack associated with blood donation. Ensure safety, comfort and convenience to the donor as well as the phlebotomist.

Hgb estimation is done by different techniques - cus04 & cyanmethemoglobin methods.

Grouping is done by different techniques and by tube techniques.

Highly sophisticated screening tests of the blood are done for HIV Ag/Ab Combo, HBSAG (V2) and HCV Version 3.0

All necessary precautions are taken to ensure the safest possible blood for the patients. We offer zero risk blood. Blood storage facility is 150 bags capacity with 3 blood storage cabinets.

To maintain optimum temperature in all shelves, good manufacturing practices and drug laws are strictly adhered, and high quality is ensured in all facets of transfusion services.