

<b>Team Id</b>	<b>PNT2022TMID26326</b>
<b>Project Name</b>	<b>Plasma Donor Application</b>

## Plasma Donor Application

Plasma Donation is much important than ever as medical conditions are going beyond man control. In the world of medication, natural immune system plays a significant role and we attain that by plasma. Even if our plasma becomes weak due to external organisms, we can improve our health by taking up plasma from donors.

During plasma donation, the liquid component of the donor's blood is separated from the cells. Plasma is collected by passing blood through a sophisticated machine after it is sucked from one arm. The donor is then returned some saline solution along with the donor's red blood cells and platelets. Plasma is the straw-colored, clear liquid component of blood that remains after the removal of white blood cells, red blood cells, platelets, and other biological components.

The most common recipients of plasma donations are patients with liver or clotting factor abnormalities, individuals who have suffered burn. A severe accident or shock and adults or children with cancer. The plasma can be stored up to one year in a frozen state and is used in today's world for saving numerous lives.

### Who can donate plasma?

- A medical examination is required and donors of plasma should at least be 18 years old.
- Following a diet that includes 50 to 80 grams of protein every day is essential and the donors must weigh at least 50kg (110 pounds).
- A thorough and complete medical history screening.
- They must test negative for transmissible viruses such as HIV and hepatitis.
- The donors are only allowed to donate plasma only once in a certain amount of period. Also, after some vaccinations ( Based on the vaccine) the donors are not allowed to donate plasma

## **How often can you donate plasma?**

One can donate plasma every 28 days. i.e., once in 56 days unlike blood donation. Blood donors can donate blood once in preferably 3 months. Our first plasma donation would take about 2 hours. While the subsequent donations might take an hour.

## **Plasma donation vs Blood donation**

Donating plasma is not the same as donating whole blood. When you give blood, it is immediately placed in a collection bag and separated in a lab. When you donate plasma, the blood collected from your arm is sent through a special machine that separates the various components of your blood. Additionally, there is a difference in the time interval within which you can donate blood.

## **Other BENEFITS OF PLASMA DONATION :**

- **Earn money by donation your plasma!**

Many people are drawn to plasma donation because they can earn a considerable sum of money each time they donate.

Unlike traditional platelet, red blood cell or whole blood donations, which do not provide financial incentives, donating plasma can be an incredibly flexible and lucrative side job, unlike to driving for OLA or delivering for Swiggy.

- **Make a difference:**

Plasma is used to make medicines that treat chronic illnesses such as immunological deficiencies, bleeding disorders, and other uncommon diseases. Every day, people all across the world require convalescent plasma, plasma transfusions, and plasma-based therapeutics. Patients who receive plasma protein therapy such as clotting factors and intravenous immunoglobulin (IVIg) rely on the generosity of donors because plasma cannot be generated synthetically.

- **The emotion impact in boosting your mind**

The simple act of giving is a powerful method to increase your own pleasure, reduce stress, release endorphins, and even strengthen social ties.

- **Reduce blood cholesterol levels and blood pressure**
- **Supply critical proteins for blood clotting and immunity.**
- **Carries electrolytes such as sodium and potassium to our muscles.**

- **Helps to maintain a proper pH balance in the body, which supports cell function.**

### **Existing System:**

- There are many applications for the Android and ios systems. For example, Ublood, friends2support, Milaap, Blood Donation, Blood Donor
- Also, some websites are available to find plasma donors or plasma donations related queries and etc. For example, [www.e-Raktdose.com](http://www.e-Raktdose.com) , [www.blooddonors.in](http://www.blooddonors.in) , [www.redcrossblood.org](http://www.redcrossblood.org) and etc.

### **Problems existing Systems:**

- In case of emergency periods finding the plasma donor is very difficult.
- In a website or application contains combined data of eligible donors and ineligible donors. So, finding the eligible donors is hard.
- Verification of the plasma donations requests
- Accurate data and location of Donor

### **Reference:**

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