



## What happens to your body when you give blood?

Donating blood saves lives. But the act of donating blood can be daunting. Will it hurt? Can they take too much? How does the blood come back? We break down the process — and highlight the importance of becoming a donor.

### *Measurements matter*

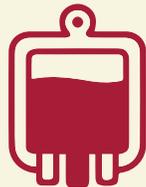
When you donate blood, the tech will take 1 pint — and your body will begin making new blood immediately.



**12** Pints of blood in the male body



**10** Pints of blood in the female body



**1** Pint of blood taken at donation

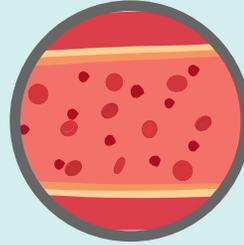
# Blood's magical makeup

Blood is made up of 4 components, each having a specific job in your body. All 4 can be extracted, but only 3 can be donated.

## Plasma

**Function:** Plasma is the "liquid" component of the blood. It transports blood cells where they need to go, and has clotting factors to help stop bleeding.

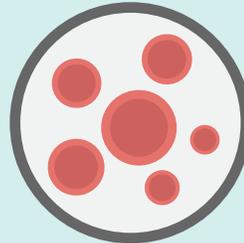
**How it helps others:** Plasma is given to very sick or seriously injured patients — who have lost a lot of blood — to help stop bleeding.



## Red blood cells

**Function:** To help carry oxygen from the lungs to the rest of the body, and return carbon dioxide from the body to the lungs.

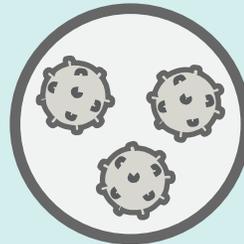
**How it helps others:** Red blood cells are given to replace blood lost due to trauma, or to help a patient who doesn't produce enough of their own blood due to bone marrow disorders, cancer or chemotherapy.



## White blood cells

**Function:** To protect the body from infection by viruses and bacteria.

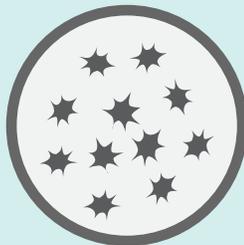
**How it helps others:** White blood cells are removed from donated blood and not used. If transfused, they can attack the recipient's tissue.



## Platelets

**Function:** To help the blood clotting process by gathering at the site of an injury and forming a platform for new tissue.

**How it helps others:** Combined with plasma, platelets help stop bleeding.



# Process makes perfect

Blood production after donation is an intricate, yet extraordinary thing. Here's how it works:

- **Blood is drawn for donation**
- **Your body senses the loss**
- **Your bone marrow produces blood cells and platelets**
- **These elements combine with plasma to form blood**

## *The gift of blood*

Every 2 seconds, someone in the U.S. needs a blood donation. Visit [sandiegobloodbank.org](http://sandiegobloodbank.org) to learn more about giving the gift of life.



### From the expert

"A blood transfusion can make a sick patient feel better, or it can literally save a person's life. Donating is perhaps the easiest thing you can do to help a patient in need. All you have to do is hold out your arm, and you can be a hero."



— Dr. Kristen Rice, a hematology/oncology doctor affiliated with Sharp Community Medical Group

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