

Science Read

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Blood Donation

What is donated blood used for?

Blood contains many life-saving components that can help to treat different illnesses and injuries. For many patients, blood donors are their lifeline. Blood goes to those having medical emergencies such as accident survivors; individuals undergoing major surgeries such as organ transplants; patients with cancers and blood disorders like leukaemia and lymphomas or severe anaemia; and even new-borns with medical conditions.



The platelets found in blood are used to treat leukaemia patients. A single patient often needs platelets from 10 or more donors, all within a short period of time. Add to that the short 5-day lifespan of donated platelets, and you can understand why there is a constant need for platelet donors.

Every hour of the day, 15 units of blood are used in Singapore. More than 100,000 units of blood are needed to meet the transfusion needs of patients every year, equivalent to more than 350 units of blood a day.

With an ageing population, more advanced life-saving medical procedures, and new hospitals being established, more blood will be needed every year.

Therefore, to ensure a steady supply of blood for public use in peacetime and during emergencies, it is vital that a 6-day supply of blood is maintained in our national inventory.

Benefits of blood donation

We all know giving blood provides an essential lifeline to those in need, but a growing body of research demonstrates that it could have health benefits for the donor too. Findings have shown that donating blood reduces the risk of heart attacks and even cancer. It even burns 650 calories for every pint given.

It is thought that the benefits arise from lowering high iron levels. Iron affects how thick and sticky the texture of the blood is. High iron levels cause the blood to be thicker. Raised iron levels also accelerate the oxidation process of cholesterol. This can affect blood consistency and create increased friction as it travels through blood vessels. As this increases wear and tear to the lining of arteries it could then contribute to cardiovascular disease. Because donating blood removes some of its iron content, it may therefore have a protective benefit if done on a consistent basis by helping thin the blood.

Article adapted from

http://www.hsa.gov.sg/content/hsa/en/Blood_Services/Blood_Donation/Why_Should_I_Donate/Blood_Usage_in_Singapore.html and <http://www.dailymail.co.uk/health/article-2333882/Donating-blood-good-YOUR-health-receiver.html>

Trivia about blood

- Cats, like humans, have 4 blood groups. Cows have more than 800 blood groups.
- An individual blood cell takes about 60 seconds to make a complete circuit around the body.