

## Book Review 'Blood Donation Information Book' (Malay Version)

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#### Introduction:

Blood is an important therapeutic product in the health system for patient care. Blood can only be obtained from donations from fellow human beings only and until now there is still no synthetic material which can completely replace blood products. On average, the National Blood Center needs as much as 15,000-17,000 bags of blood within a month for cover the need for blood supply to treat patients in need. Referring to the World Health Organization (WHO), as many as 11.7 donations per 1000 population are required to donate blood for developing countries. The culture of donating blood continuously is necessary to ensure safe, quality blood and enough can be supplied to patients who need it. Blood donation is needed to treat and save the patient's life. Blood donors can donate red blood cells and apheresis donations, which are plasma and platelets.

In general, for heavy blood donors' body over 45 kg, generally has 10 to 12 blood bags in the body. Only one bag of blood from the composition of the blood taken. For blood donors that has a body weight between 45 kg to 55 kg, only 350 ml of blood was donated, while blood donors whose body weight exceeds 55kg as much as 450 ml of blood is donated. The need for adequate, safe, and quality blood is necessary to treat patients who need blood due to serious bleeding that occurs due to accident, major surgery, current childbirth complications or organ transplant, dengue hemorrhagic fever, anemia such as thalassemia, leukemia, or cancer, fire victims, neonatal stage infants who experience jaundice severe and hemophilia patients. Blood components cannot be stored for a period of time which is old and requires its storage temperature which certain to guarantee the quality of the products produced. Red blood cells are stored in a refrigerator at 2° to 6°C and can last for 35 days up to 42 days.

Platelet products are stored at 20°C to 24°C in the special 'agitator' equipment and just survive for 5 days. Plasma products are stored at temperatures below freezing (< -25°C) and lasts for 3 years. When plasma liquid is kept under freezing, the plasma becomes solid and known as fresh frozen plasma. Blood donation culture can preserve health and stimulate the body to produce new blood cells, then maintain body fitness and making blood donors more productive. Blood donation saves at least 3 lives, where donated whole blood can produce red blood cells, platelets and plasma.

Blood donors can know the blood group, blood pressure readings, and hemoglobin levels through health checks done before the donating blood process. Blood donors who donate blood at the static blood donation center, mobile blood donation campaign and blood banks across the country are eligible qualify for blood donor privileges. Blood donation process flow chart starts from fill out the blood donation form, do a simple health screening to find out body weight, blood group, and hemoglobin level, register for blood donation, undergo an interview session with the doctor/health personnel to determine eligibility for donating blood, donate blood and take food and drink. Before the blood donation day, make sure you drink enough water, sleep at least 5 hours and visit the National Blood Center website to know the criteria as a blood donor. Anemia is a condition that lacks red blood cells or reduced hemoglobin levels in the body. When the person is anemic, the red blood cells are not capable of supplying complete oxygen. Signs of anemia are rapid heartbeat, headache/dizziness, shortness of breath when doing physical activity, easily tired, pale, lack of concentration.

## Reference

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Anemia can be detected through a blood test. A simple and quick blood screening can be done by testing capillary blood taken at the tip of your fingers. Each individual has a hemoglobin reading which differ by gender. Among the level criteria hemoglobin that needs to be met to qualify for blood donation is for women >12.5 g/dL and men >13.5 g/dL.

The blood donation process is generally a process which is safe as long as the blood donor meets the criteria as a blood donor and follow the advice given before donation. However, there are a few blood donors experience side effects though the risk is minimal. The reaction includes action of vasovagal response (dizziness, nausea, fainting, or fatigue) followed by hematoma (bruising or swelling) etc. Muscle stretching exercises involve stretching body muscles movements periodically to help blood flow and subsequently reduce side effects, such as symptoms of dizziness and fainting during the blood donation process. The blood donation process is generally a process which is safe as long as the blood donor meets the criteria as a blood donor and follow the advice given before donation. However, there are a few blood donors experience side effects though however the risk is minimal. A possible reaction occurs including a vasovagal response followed by hematoma (bruise) and so on. The blood donation process that carried out at facilities of the Ministry of Health Malaysia have Strict Standard Operating Procedures in ensure the safety of blood donors and blood products produced. This compliance is important in ensuring blood products are safe and quality to be supplied to donors.