



血液安全 生命有救

Safe Blood Save Lives

捐血資訊

Blood Donation Info Pack



香港紅十字會輸血服務中心
Hong Kong Red Cross Blood Transfusion Service



Blood Donation Information

Content

Basic Requirements	P.2
Blood Donation Preparation	P.3
Blood Donation Process	P.4
Understanding the Risk of Donating Blood	P.5
Applied Muscle Tension Exercise	P.6
Post Donation Advice	P.7
Iron Supplement Program	P.8
Blood donation information related to travelling history or residence aboard	
• Malaria	P.9
• West Nile Virus Infection	P.10
Explanation of Health Enquiry Questions	P.11-25

Other Services

- Hong Kong Bone Marrow Donor Registry P.26-28
- Apheresis Blood Donation P.29-30
- Negative Blood Donation P.31
- Rare Blood Donation P.32





Basic Requirements

To ensure the safety of both blood donors and recipients, the Hong Kong Red Cross Blood Transfusion Service (BTS) have established guidelines to screen all prospective donors and test all collected blood products in accordance with international standards.

Regarding donor selection, the key elements of screening include answering the questionnaire, checking the haemoglobin level and measuring the blood pressure, etc. It is noted that BTS shall only accept blood donations from those who meet all the eligibility criteria.

The basic requirements are as follows:

1. Aged between 16 and 65 (First time blood donor) #
2. Body weight: 41kg or above
3. Healthy & feel well
4. Meet all donor eligibility criteria



- **Male donors (aged 18 or above)** can give whole blood every 75 days with maximum 5 donations in a calendar year.
- **Female donors (aged 18 or above)** can give whole blood every 105 days with maximum 4 donations in a calendar year.
- **Adolescent donors (aged between 16 and 17)** can give whole blood every 150 days with maximum 3 donations in a calendar year. In addition, they have to present a parental consent at their first blood donation.

After 65, donors can continue to give whole blood as long as they remain in good health, pass the screening procedures, and have made at least one blood donation in the last 2 years. For donors aged 70-75, the same principle applies, with an additional requirement of annual health assessment conducted by BTS physician.



Blood Donation Preparation

The night before your blood donation



Adequate sleep



Avoid taking food with high fat content

On the day of your blood donation



Food consumption within 4 hours



Drink sufficient water



Do not wear clothing with tight sleeves



Bring along Hong Kong Identity Card or valid travel document



Adolescent donors need a parental consent at their first blood donation.



Blood Donation Process



1. Get a queue ticket (For Donor Centres Only)

2. Complete the Blood Donation Registration Form (BDR Form)

To protect the health of both blood donors and recipients, it is vital to review the eligibility of every donor on each occasion. Each donor must fill in the [Blood Donation Registration \(BDR\) Form](#) and read pre-donation information carefully. If you have any enquiry, please contact our staff for details.

3. Scan QR code on the queue ticket (For Donor Centres Only)

Upon completed the BDR form, please scan QR code on the queue ticket. This will notify the queue management system to arrange next step for you - **Haemoglobin (Hb) test**.



4. Haemoglobin (Hb) Test

The Hb test helps to make sure donors do not have anaemia and are not likely to become anaemic after donation. The acceptable Hb range for males is 13.0 - 18.0 g/dL and for female is 12.0 - 16.5 g/dL.

5. Health Screening

Our nurses perform health screening to review the donor eligibility.



6. Blood donation

Our target blood collection volume is either 350ml or 450ml. Before venepuncture, our staff will perform blood pressure and pulse checking as well as skin disinfection. The donation process in general takes around 7 to 12 minutes.

7. Rest

After blood donation, please stay in the donation chair and apply pressure on the needle site for 5 minutes until bleeding stops. Please feel free to enjoy the drinks and snacks in our resting area. Remember to get plenty fluid to replenish volume loss. You are recommended to stay for another 15 minutes before you leave.





Understanding the Risk of Donating Blood

In general, blood donation is safe. Occasionally adverse reactions may happen. The risks are listed below.

Feeling dizzy or faint

Donors may feel dizzy or faint. This reaction can be caused by physiological, psychological factors or both. It is usually mild and resolved uneventfully. Some contributory factors are:

- 
- Feeling anxious about needles, the procedure, pain or the sight of blood
 - Dehydrated before donation
 - Fatigue or exhausted before donation
 - Standing for prolonged periods
 - Standing too quickly from the donation chair after donation

Skin allergy or infection

Occasionally, donors may experience an allergy reaction to the skin disinfectant or the wound dressing material. Rarely, infection may occur causing redness, swelling, pain and warmth in the affected area.



Arm pain or bruising

Transient arm pain may happen. Minor bruising at the puncture site is not uncommon and will fade within 1 week.



Complications relating to needle insertion

In rare occasion, the needle puncture may cause damage to an artery, nerve or tendon at the needle site.



Iron deficiency

In each whole blood donation, donors will lose about 200-250mg of iron. Donors are encouraged to take iron rich diet and iron supplement after blood donation. Please refer to our 'Iron Supplement Program' for detail.





Applied Muscle Tension (AMT) Exercise

A small proportion of donors may occasionally experience faint or dizzy due to vasovagal reaction (VVR). This reaction is a reflex mechanism of the body elicited in response to unpleasant stimuli, resulting in a sudden drop in blood pressure. When this reaction happens, donors may also feel nausea, sweating, hot or cold, vision change, etc. In blood donation setting, VVR is usually related to emotional stress and reduced blood volume. It is more common in young, female, thin and first-time donors.

It is found that Applied Muscle Tension (AMT) Exercise can alleviate VVR. It is because AMT helps blood pressure stay up and improves blood flow. Moreover, engaged in AMT would act as a distraction to reduce stress and anxiety. It is advised to perform AMT exercise during blood donation or whenever faint occurs.



1. Cross your legs.
2. Squeeze your inner thigh and abdominal muscles.
3. Stretch your ankles.
4. Hold for 5 seconds, then relax for 5 seconds.
5. Repeat 5 times then switch legs.





Post Donation Advice



Please pay attention to the following post donation advice to protect your health and blood safety:

Over the next 12 hours

- Drink plenty of fluid to replenish volume loss.
- The plaster can be removed after a few hours.
- Avoid heavy lifting to prevent arm bruising.
- Avoid strenuous exercise.

Iron replenishment

- Iron that stored in red blood cells would be lost during the course of blood donation. Iron replenishment is essential for human body to produce new red blood cells after each donation. Therefore, donors are advised to take iron-rich diet and take iron supplement provided by donor centres.

Handling of Adverse Reaction

Fainting or dizziness after leaving the donor centre

- Keep calm, beware of fall and injury.
- Take a seat or lie down immediately and raise your legs to increase blood flow to the brain.
- Loosen tight clothing and belts.
- If the circumstance allows, do AMT exercise.
- Seek assistance from passers-by or call the Emergency Hotline 999 if condition does not improve.

Bruising

- Bruising may occur following blood donation. It will gradually subside and disappear in about a week's time.
- Apply cold pad to the bruise within 24 hours after blood donation.
- Bruise relief cream can be applied to the affected area to speed up recovery.

Skin allergy / Arm pain / Numbness

- If there is severe skin rash, itchiness, redness, swelling, pain or numbness around the venepuncture site, please contact us or consult your physician immediately.
- If a mild skin rash occurs over the venepuncture area, it may be an allergic reaction to the skin disinfectant. Please use warm water to thoroughly clean the skin in order to remove residual irritants and contact us for advice.

Attention: After blood donation,.....

- If you develop signs or symptoms of an infection within 4 weeks (e.g. fever, common cold, etc.) or develop hepatitis, tuberculosis or malaria within 6 months.
- Decide your blood should not be used.

Please call us ASAP at Tel: 27101333 (Office hours); 27101210 (Outside office hours)

Iron Supplement Program

Function of Iron

Iron is an essential component for haemoglobin (Hb) synthesis. Iron deficiency could lead to decrease in Hb production and finally result in anaemia. Inside the body, Hb carries oxygen from the lungs to body cells. If Hb level decreases, the body does not get enough oxygen- rich blood. As a result, the person may look pale and develop anaemic symptoms, e.g., fatigue, weakness, dizziness, shortness of breath, palpation etc.

Iron and Blood Donation

In each whole blood donation, donors will lose about 200-250mg of iron. Donors are encouraged to take iron-rich diet. In addition, oral iron supplement is distributed to individual donors for iron replenishment.



Oral Iron Supplement

The iron supplement will turn your stool to a darker colour. Stomach upset and constipation are possible side effects.

To enhance the absorption of oral iron supplement, please follow the advice below:

- Take one tablet every other day.
- Empty stomach is better for iron absorption.
- Vitamin C rich food can increase iron absorption.
- Avoid tea, milk, coffee, antacids and calcium supplements two hours before and after taking iron supplement. They would impair iron absorption.

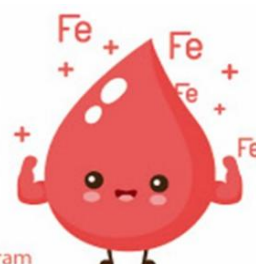


To minimize the side effects, please follow the advice below:

- Taken iron supplement with food or after meal to reduce the side effect of stomach upset.
- Increasing fiber and fluid intake can relieve constipation.
- Extend the dosing interval could also reduce the side effects, hopefully enabling you to complete the entire course of iron supplementation.
- If any intolerable side effect is encountered, you could choose to stop the iron supplement.



鐵質補充計劃
Iron supplement program



Malaria

(Related information: <https://www.chp.gov.hk/en/healthtopics/content/24/30.html>)

Malaria is a serious infection that is caused by a parasite called Plasmodium. It is found commonly in some parts of tropical or sub-tropical areas (i.e., malaria endemic areas). Malaria is a vector borne disease and transmitted by an infected female *Anopheline* mosquito. Hong Kong is not an endemic area. Local cases usually result from people with travel or residence history in endemic areas elsewhere.

It is known that people may get malaria from infected person through contaminated blood contact, e.g., in blood transfusion. Although rare, it can be fatal. To mitigate this risk, the Blood Transfusion Service in general has to rely on the travel history and residence records of donors to decide whether they are at risk of malaria and therefore, unsuitable for blood donation.

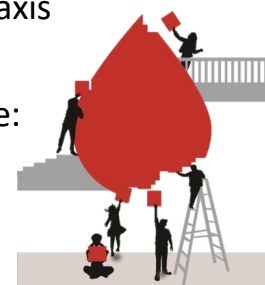
The latest donor eligibility rules related to Malaria are as follow:

If you have	Deferral till
travelled to a malaria-endemic area	3 months after return
resided in a malaria-endemic country*	after 3 years of continued residence in Hong Kong or other non-endemic countries**
history of malaria	3 years after recovery, while residing in a non-endemic country (except relapsed cases)

- * Those living in a country for more than 5 years would be considered as a resident (rather than a traveller).
- ** If you travelled to a **malaria-endemic area** in between these 3 years, the timer will be reset. The counting (of the 3 years) will be started again upon your return.

Note:

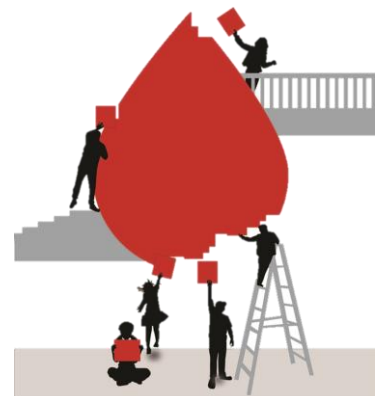
- The above deferral periods apply whether or not anti-malarial prophylaxis has been taken.
- For enquiry of malaria-endemic area, please visit the following website: <https://www.cdc.gov/yellow-book/hcp/preparing-international-travelers/yellow-fever-vaccine-and-malaria-prevention-information-by-country.html>



West Nile Virus Infection

West Nile Virus (WNV) is an infection transmitted through mosquito bite. Blood transfusion is one of the transmission modes of WNV. To ensure blood safety, the BTS has implemented the following precautionary measures:

- Prospective donors who have been to North America or WNV endemic areas within four weeks before the date of blood donation, irrespective of any clinical symptoms, will be temporarily deferred for 28 days.
- Prospective donors who have been to North America or WNV endemic areas 4 weeks before the date of blood donation and have flu-like symptoms such as fever, headache, eye pain, muscle/joint pain, vomiting, enlarged lymph nodes or skin rash, should inform our nurses. Donors having these symptoms may need a longer deferral period.
- Blood donors should call us as soon as possible at 2710 1333 (office hours) or 2710 1210 (outside office hours) if the above symptoms are noticed following blood donation.





Blood Donation Registration Form

The Hong Kong Red Cross Blood Transfusion Service (BTS) is committed to provide adequate and safe blood to patients in our community. To achieve this aim, BTS have the following measures.

Collecting blood only from voluntary non-remunerated blood donors

Voluntary donors are motivated by altruism, and they give blood out of generosity and kindness. They are likely answering the questions honestly. They have no apparent reason to hide any important information that actually requires deferral.

Conducting a health screening, which consists of self-administered questionnaire, followed by a private interview with our nurses

The questionnaire, also known as the questions in the Blood Donation Registration Form, will enable BTS to comprehensively appraise the current and past health conditions, lifestyles and travel history of donors. The private interview provides the opportunity to explore and clarify donors' answers in a confidential manner. This helps assessing both donor eligibility and donor safety for blood donation.

Testing of collected blood for the following infectious markers to prevent transfusion transmission of blood borne infection

- ◇ HIV Antigen, Antibodies and RNA
- ◇ Hepatitis B Virus Surface Antigen and DNA
- ◇ Hepatitis C Virus Antibodies and RNA
- ◇ Hepatitis E Virus RNA
- ◇ Human T cell lymphotropic Virus Antibodies
- ◇ Syphilis Antibodies

Nevertheless, not all blood borne infections can be detected by our screening tests. Please help us to ensure blood safety and do not proceed to donate if you suspect that your blood may carry a potential risk of infection or if you want to have your blood tested.

In order to give you a better understanding of the questionnaire, listed on subsequent pages are the explanations of the rationale for each question on Blood Donation Registration Form.



Rationale for Questions on the Blood Donation Registration Form

General Health Screening:

1) Are you feeling well enough to give blood today?

If you are not feeling well, it may be an early sign of an illness or indication that your body is not ready for blood donation at this moment. You are welcome to donate on another day.

2) Are you currently under a doctor's treatment, taking any medication (including herbal medicine) or awaiting test result?

For donors who are currently under **medical treatment or medical follow up**, their underlying health condition or disease may render them unsuitable for blood donation. Our nurses would make individual assessment accordingly.

Some **medications** may affect the quality of the blood components and could have harmful effects on the recipients. Always clarify your medication with our nurses.

In Hong Kong, it is common to add **Chinese herb** in cooking (soup and dishes), or take Chinese herb as health supplement or remedies for promoting health. These practices do not affect donor eligibility. On the other hand, taking Traditional Chinese Medicine as a treatment for medical problem is different that you will be temporarily deferred for 3 days after recovery and off the medication. Regarding herb/Traditional Chinese Medicine and donor eligibility, our nurses would offer individual recommendation accordingly.

Please let us know if you are **waiting for test result**. Our nurses would assess donor eligibility depending on the nature of the procedure and the reason for the investigation.





Rationale for Questions on the Blood Donation Registration Form

General Health Screening:

3) Have you ever been diagnosed of the following illnesses?

- ✘ cardiovascular diseases (e.g. chest pain, hypertension)
- ✘ respiratory diseases (e.g. asthma)
- ✘ gastrointestinal or liver diseases (e.g. inflammatory bowel disease, hepatitis)
- ✘ blood diseases (e.g. bleeding problem, previously received clotting factor concentrates)
- ✘ cancers
- ✘ endocrine or metabolic diseases (e.g. diabetes, thyroid diseases)
- ✘ neurological diseases (e.g. loss of consciousness, epilepsy)
- ✘ mental disorders
- ✘ kidney or urogenital diseases (e.g. nephritis, kidney or bladder stones)
- ✘ autoimmune or rheumatological diseases (e.g. SLE, rheumatoid arthritis)

While you have to be in good health to give blood, it does not mean you must have been free of any disease. In fact, most chronic diseases under good control and past illness without serious consequence would not be a reason for deferral. Therefore, responding “yes” to any of the above questions does not always result in ineligibility. Our nurses would assess your eligibility based on the nature and severity of the disease, treatment received, and timing of recovery, etc. On the other hand, some medical conditions could render blood donation not suitable.



Rationale for Questions on the Blood Donation Registration Form

General Health Screening:

4) Have you ever been diagnosed of G6PD deficiency?

Blood donation can be accepted from individuals with G6PD deficiency. However, their blood collected cannot be used for neonatal exchange transfusion. Please let us know so precaution could be made accordingly.

5) Have you ever taken the following drugs?

- ✧ aspirin or any drugs containing aspirin or antiplatelet agents
- ✧ non-steroidal anti-inflammatory drugs
- ✧ drugs for hair loss
- ✧ drugs for benign prostatic hypertrophy
- ✧ drugs for acne



It is known that some medications would affect the quality of the blood components and have teratogenic effects. In order to avoid any harmful effects on the recipients, you must report if you have used or are using any of the above-mentioned medications. Always clarify your medication with our nurses.

6) Have you ever had drug allergy?

Drug allergy may affect your eligibility depending on the nature of allergy, severity of symptoms and the timing of the episodes. It is important to discuss in detail with our nurses.



Rationale for Questions on the Blood Donation Registration Form

General Health Screening:

7) For female only:

- ※ Are you pregnant?
- ※ Have you given birth/ had an abortion in the last 12 months?
- ※ Have you ever received treatment for infertility?

Pregnant women may develop iron deficiency and anaemia because (1) during pregnancy, fetus would use mother's iron for growth and development, and (2) her blood volume increases during pregnancy, and it needs more iron to make red blood cells. Therefore, donating blood during pregnancy is not accepted for the sake of mother and fetus.

Similarly, females who have given birth or had an abortion recently are also prone to iron deficiency and anaemia. We advise to wait for 6 months before they make a blood donation again.

Regarding those who have received treatment for infertility, our nurses would provide individual assessment for their donor eligibility.





Rationale for Questions on the Blood Donation Registration Form

HIV/ AIDS, Hepatitis B and Hepatitis C Infection Risk Assessment:

8) Have you been diagnosed of or suspected to have the following infection?

- HIV infection/ AIDS
- Hepatitis B infection
- Hepatitis C infection



Blood borne infections (BBI) refers to the infections caused by micro-organisms (e.g., viruses) that are carried in the blood, specifically Hepatitis B virus (HBV), Hepatitis C virus (HCV) and HIV virus. They can be transmitted through contact with infected blood and body fluid. Common routes of transmission include: blood contact, sexual contact, sharing of needle, and percutaneous inoculation, etc.

It has been a long history of concern about the risk of transmission of HBV, HCV and HIV through blood transfusion (i.e., Transfusion transmitted infection TTI). Surveillance on TTI risk is of paramount importance to blood safety. To begin with, it is essential to defer donors with a known history of HBV, HCV or HIV in the first place. Moreover, it is necessary to defer donors engaged in activities which could increase the risk of BBI.

Attention:

Please do not give blood just to find out your Hepatitis B, C and HIV status. You had better consult family doctor for advice if suspected of having these infections.

FOR FREE HIV TESTING, PLEASE CONSULT YOUR DOCTOR OR CALL 2780 2211.

You may refer to Department of Health, HIV Testing Service for details.

<https://www.hivtest.gov.hk/en/index.html>

9) Have you ever taken any medication to treat HIV infection?

People must not donate blood if they are taking or have ever taken medication to treat HIV infection e.g., antiretroviral therapy (ART).



Rationale for Questions on the Blood Donation Registration Form

HIV/ AIDS, Hepatitis B and Hepatitis C Infection Risk Assessment:

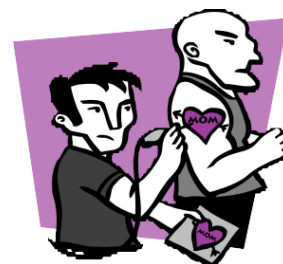
10) Have you ever taken / injected any medication¹ to prevent HIV infection?

Medication for HIV prevention e.g., pre-exposure prophylaxis (PrEP) or post-exposure prophylaxis (PEP), may interfere with HIV test giving unclear results in a person who is infected with HIV. Please inform our nurses if you have ever taken/ injected PrEP or PEP.

11) In the past 3 months, have you

- had tattoo², acupuncture, ear or body piercing, or contact with blood of another individual through percutaneous inoculation (e.g. needle stick injury) / open wound / mucous membranes?

Prospective donors must wait for 3 months after having the above activities/ accidents which carry a potential risk of hepatitis B, Hepatitis C and HIV infections. As mentioned above, it is important to defer donors with activities with a higher risk of BBI. On the other hand, if disposable sterile needles are used for acupuncture or ear piercing, there is no need for deferral.



- used or injected yourself with narcotics or non-prescribed medication?

Persons with history of drug abuse/ self-injection of narcotics/ non-prescribed medication are at a higher risk of HIV and HCV infection. Please wait for 3 months before donating blood.

Remarks:

Medication¹ includes pre-exposure prophylaxis (PrEP) and/ or post-exposure prophylaxis (PEP).

Tattoo² includes permanent and semi-permanent cosmetic tattoos, such as microblading of eyebrows, eyelines and lips etc.



Rationale for Questions on the Blood Donation Registration Form

HIV/ AIDS, Hepatitis B and Hepatitis C Infection Risk Assessment:

The questions below are related to your sexual contact³.

11) In the past 3 months, have you

- had sex with someone who had been diagnosed of HIV infection?
- taken money, drug or other payment for sex?
- had sex with someone who had taken money, drug or other payment for sex?
- had sex with someone who had used or injected narcotics or non-prescribed medication?
- had sex with a new partner⁴ or more than one partner, AND had engaged in anal sex?

For male only:

- had sexual contact with another man?

For female only:

- had sexual contact with a bisexual man (one who has sexual contact with another man)?

Prospective donors must wait for 3 months after having the above activities which carry a potential risk of Hepatitis B, Hepatitis C and HIV infections. As mentioned above, it is important to defer donors with activities with a higher risk of BBI.

Remarks:

Sexual contact³ refers to oral, vaginal or anal sex, with or without the use of condom.

New partner⁴ refers to having sex with someone for the first time, or having had sex with someone in a relationship that ended in the past and having sex again with that person in the last 3 months.

12) In the past 12 months, have you been detained in a correctional institution or prison for 72 hours or more consecutively?

Prospective donors who are in the above situations may expose to a higher risk of high-risk behaviour which increases the chance of Hepatitis B, Hepatitis C and HIV infections. Donors must wait for 12 months from the date of release from incarceration before donating blood.

Attention:

Regarding the HIV/ AIDS, Hepatitis B and Hepatitis C Infection Risk Assessment, it is an important part of the TTI risk surveillance. If you do not understand the question or not sure your answer, you are welcome to discuss with our nurses during the private interview session. Our nurses would provide individual assessment.



Rationale for Questions on the Blood Donation Registration Form

Infection, Vaccination and Other Risk Assessment:

13) In the past 1 week, have you had any dental procedure (including scaling, dental extraction, etc.), open wounds or skin lesions?

In fact, human body have colonization of bacteria inside the mouth and on the skin. Under normal circumstances, the bacteria are present but do not cause harm nor make you sick. However, in the event of dental procedure, open wounds or skin lesions, there would be breaching of the mucous membrane or skin barrier. Then the bacteria have the opportunity to enter the blood stream. Therefore, donors with the above situations need deferral for blood donation.

14) In the past 2 weeks, have you had diarrhea or symptoms of flu, fever, headache, eye pain, muscle or joint pain, vomiting, enlarged lymph nodes or skin rash?

For most acute **diarrhea**, donors would be deferred for 2 weeks. For some types of diarrhea, it takes a longer time to clear the pathogen from the body, and a longer deferral period is needed to apply.



For those with **flu-like illness**, our nurses would also assess other associated symptoms to check any risk of contracting other infection e.g. Dengue fever or West Nile Virus infection.





Rationale for Questions on the Blood Donation Registration Form

Infection, Vaccination and Other Risk Assessment:

15) In the past 8 weeks, have you

- had contact with someone with an infectious disease e.g. chickenpox, rubella, tuberculosis (TB)?
 - Infectious diseases have incubation period of variable length. In general, a history of contact with an index case warrants a deferral of 1 to 8 weeks. If you are not sure of the possible exposure, please discuss with our nurses.
 - A history of close contact with a person confirmed to have Ebola disease or person under investigation for Ebola disease, requires deferral of blood donation for 8 weeks after the last contact. Close contact also includes sexual contact with a person known to have recovered from Ebola disease.
- had any vaccinations e.g. vaccination against Hepatitis A, Hepatitis B or tetanus?

Different vaccines affect blood donation differently. Our nurses will assess your eligibility individually.

For details, please visit: https://www5.ha.org.hk/rcbts/faq_vac

16) In the past 6 months, have you received blood transfusion?

Although the risk of infection from blood transfusion is extremely low, for extra safety precaution for blood recipients, a 6-month deferral is required if prospective donor has such history.



Rationale for Questions on the Blood Donation Registration Form

Infection, Vaccination and Other Risk Assessment:

17) In the past 12 months, have you

- been bitten by any animal?

This question focuses on evaluating the risk of exposure to rabies infection. When bitten (also if scratched or broken skin licked by animal), the rabies virus in the saliva of the infected animal could enter the human body through the wound and travel through nerves to the brain, leading to encephalitis. The rabies risk also depends on the animal status (whether a pet, with rabies vaccine, abnormal behaviour, etc.). Our nurses will assess each scenario individually.



- undergone surgical operation (including endoscopic examination, treatment involving the use of catheters)?

Regarding the deferral period for surgical operations, it would depend on the nature of the operation and the underlying disease in need of the operation.

As a general rule

- ✕ For elective minor operations, donation is accepted after a 3-month deferral period.
- ✕ For elective major operations, donation is accepted after a 6-month deferral period.
- ✕ For major emergency operations, donation is accepted after a 12-month deferral period.





Rationale for Questions on the Blood Donation Registration Form

Infection, Vaccination and Other Risk Assessment:

18) Have you ever received organ or tissue transplant?

Considering the risk of CJD, individuals who received dura mater transplants are not eligible to donate. In addition, individuals who have undergone organ transplant need to take long term medication to prevent graft rejection which render them being prone to infection. Therefore, individuals with previous transplant are not eligible to donate blood.



19) Have you been diagnosed of the following infectious diseases?

- **Bacterial infection** e.g. Brucella infection, Tuberculosis (TB) etc.
- **Viral infection** e.g. Chikungunya, Dengue Fever, Glandular Fever, Japanese Encephalitis, Mpox, West Nile Virus infection, etc.
- **Protozoal infection** e.g. Babesiosis, Malaria, Toxoplasmosis, Trypanosomiasis etc.
- Venereal disease
- Others, please specify:



As mentioned above, TTI risk surveillance is of paramount importance to blood safety. All blood donations are subject to mandatory screening tests to minimize the risk of TTI. However, there are some infectious agents for which laboratory tests are not routinely available in blood donation screening. In this case, it depends on the questionnaire and deferral to safeguard the risk. In addition, some infections need specific deferral in view of donor safety. Please state clearly your history of infections.

- People with history of **venereal disease** must wait for 3 months from the date of cure and recovery. However, people with history of **syphilis infection** will be permanently deferred.
- **Tuberculosis (TB)** is prevalent in our locality. Persons with a history of TB can be accepted for blood donation after clear of disease and off medication for 2 years.
 - ✕ Persons under investigations for suspected or relapsed TB are deferred.
 - ✕ Close household contacts of active TB are deferred until the attending physician or Department of Health has given clearance.
- Persons with **glandular fever, Hepatitis A or Hepatitis E** are also advised not to give blood until 6 months after full recovery.
- **Malaria, Dengue fever, West Nile Virus infection, Japanese Encephalitis, Chikungunya, Yellow fever or Zika virus infection** etc. are transmitted by mosquito bite and transmission via blood transfusion have been documented. People who have been suffered from these infections should withhold blood donation temporarily. Those with a history of malaria will be deferred for 3 years from the date of recovery, while residing in a non-endemic country. Relapsed cases will be permanently deferred.
- For other rare infections such as **Toxoplasmosis or Mpox** etc., people who have been suffered from these infections would need deferral accordingly. However, those with a history of **Brucella infection, Babesiosis, Trypanosomiasis or Ebola disease** will be permanently deferred.



Rationale for Questions on the Blood Donation Registration Form

Other Risk Factors Assessment:

20) Have you ever donated blood under another name?

This question helps us to identify donors with past donor record stored under another name so that we can combine the old and new record. This can ensure not to miss any important information e.g., past blood donation test results.



21) Have you ever been informed not to donate blood permanently by us or other blood service?

It is very important for you to disclose such information. There must be a clear reason for a person to be permanently deferred or advised not to donate blood. This is to ensure that one's health condition is really suitable for giving blood.

22) In the past 3 months, have you travelled outside Hong Kong?

Travel history is important. If you have travelled outside Hong Kong in the past 3 months, you may need withhold donation. We would check whether your destination is an endemic area for certain infections that may affect blood safety.

Please may also refer to the section of "Blood donation information related to travelling history or residence abroad" for details on Malaria and West Nile Virus Infection.

An individual who has lived in, or traveled to, a country with Ebola disease outbreak must defer blood donation for 8 weeks from the date of departure.





Rationale for Questions on the Blood Donation Registration Form

Other Risk Factors Assessment:

23) Have you ever spent for 4 weeks or longer continuously in Mexico, Central or South America?

Travel history is important. It is noted that Trypanosomiasis (Chagas disease) is endemic throughout Mexico, Central or South America.

24) Have you ever been resided outside Hong Kong consecutively for 5 years or longer?

This question is intended to identify donors who have resided in malarial risk country that requires specific deferral policy.

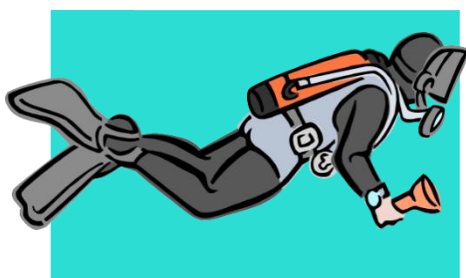




Rationale for Questions on the Blood Donation Registration Form

Other Risk Factors Assessment:

**25) Will you be undertaking any hazardous sport today?
e.g. rock climbing, diving or flying**



You are advised not to take vigorous sports on the same day after donation as it could increase the risk of post donation adverse reactions.

26) Will you be driving a heavy vehicle or working at hazardous depths or heights today? e.g. fireman, train or lorry driver, or scaffolding worker

It is preferable for people in such occupation(s) to donate blood at the end of his/her working day or shift.

Question for **female** apheresis donor only:

27) Have you ever given birth / had an abortion?

The above question can help BTS to decide the donor eligibility which can minimize the potential risk of a rare but serious complication of blood transfusion.

Hong Kong Bone Marrow Donor Registry

Introduction

It is estimated that more than 1000 new cases of blood cancers and other serious blood diseases are diagnosed in Hong Kong each year, affecting both children and adults. Some of these diseases can be life-threatening and do not respond well with standard treatment. For them, bone marrow transplantation may be the only hope for a cure. However, a matched donor has to be identified before transplantation can be performed. Some patients are fortunate enough to have a suitable donor within their families, yet others will need to find unrelated persons to help.

Who can be a matched donor?

A matched donor relates to the compatibility of the tissue types (also known as "HLA type") between donors and recipients. The chance of two unrelated persons having matched tissue types is very low. For common HLA type, the chances are ranging from 1 in 5000 to 1 in 100,000. Obviously, the more donors recruited, the greater the chance of finding a matched donor and the shorter the waiting time. Therefore, it is important to have you registered in our database.



N.B. HLA (Human Leucocyte Antigen) are collections of proteins found on the surface of cells. They are initially discovered on white blood cells (also known as Leucocyte). Now we know they are found on most cells of tissues in our body. Our HLA type is inherited from both parents.

How to donate bone marrow?

If you are confirmed to be matched with a specific patient, you can donate bone marrow through either bone marrow harvest or peripheral blood stem cell donation.

BONE MARROW DONATION REGISTRATION

Registration Criteria:

- Good health
- Aged 18 – 45
- Weight ≥ 45kg



Registration Procedure:

- Register at a blood donor centre
- Sign a consent form and fill in bone marrow donor registration form
- Undergo a health screening
- Give a sample for HLA test if eligible
- Once registered, your information will be stored in the Hong Kong Bone Marrow Donor Registry database.



Chance of matched HLA typing

Same parents :	1 in 4 for each sibling
Common type :	1 in 5,000 – 10,000
Rare type :	less than 1 in 100,000



<https://www5.ha.org.hk/rcbts/bmedu2?lang=en>

Give patient a chance of finding a donor match, please register as a bone marrow donor.
Please note that you only need to register once.

Educational Pack for Bone
Marrow Donor Registration

Bone Marrow Donation (Bone Marrow Harvest)



Prior to donation:

Doctor consultation and work up.

Admit to collection centre one day prior to donation for pre-operative preparation.



Donation day:



- Bone marrow harvest is a surgical procedure performed under general anesthesia.
- The doctors will insert special needles into the iliac crest cavity of both sides of your pelvic bone to collect marrow blood.
- Since the wounds are small, no stitching is required.
- The donation process usually takes around one hour.

Post donation:

- Required to bed rest and kept under observation until stable.
- You may feel dizzy after donation and the puncture sites may be sore and tender.
- Pain medication is usually effective in relieving the discomfort.
- Later in the day, you can walk, eat and drink again.
- You will be discharged after staying one night for observation.



Generally, you will recover and return to your usual state in two weeks. Avoiding intense physical activities during this period.

Peripheral Blood Stem Cell (PBSC) Donation



Prior to donation:

Doctor consultation and work up.

Subcutaneous injection of Granulocyte Colony Stimulating Factor (G-CSF) for 4 days prior to donation (given at donor centre). This help to mobilize more haematopoietic stem cell (HSC) from the bone marrow into the blood stream, and therefore we are able to collect enough HSC for a transplant



Donation Day:



- PBSC Collection is a non-surgical procedure done in outpatient setting.
- It proceeds as an apheresis donation in the collection centre.
- During donation, a phlebotomy needle will be placed into the vein of each arm.
- Blood is drawn from one arm and directed into a blood cell separator machine.
- After separating the blood, the machine collects your HSC and returns the remaining blood back to you through the needle on the other arm.

Generally, most of the PBSC donations are completed in one apheresis session which may take up to four hours. Hospitalization and General Anesthesia are not required.

Post donation:

- Monitor in the collection centre for at least 30 minutes after donation.
- You will be discharged on the same day.

Generally, you will recover and return to your usual state in one to two days.



Apheresis Donation

Blood is composed of different components, namely red blood cells, white blood cells, platelets and plasma. Whole blood donation is the most common type of blood donation. It involves collecting one unit that contains all blood components. In our laboratory, the collected whole blood is separated into its components and issued to patients who need them.

What is Apheresis donation?

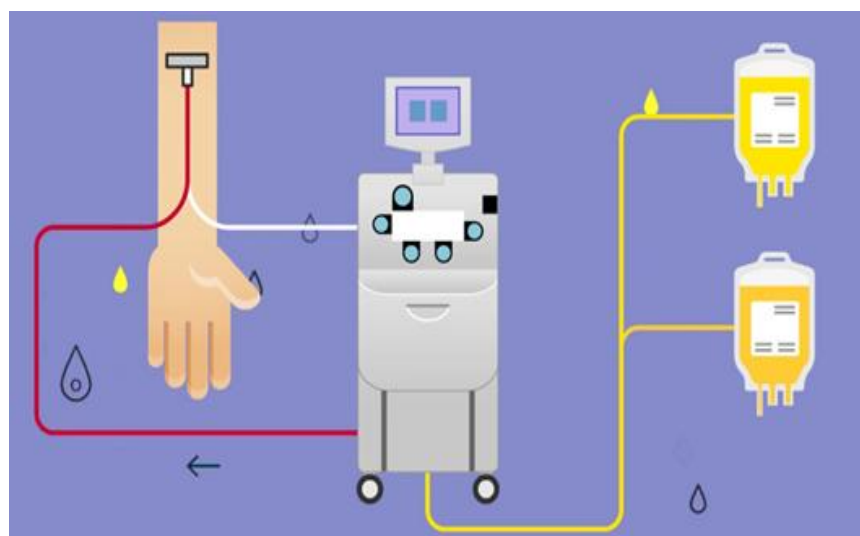
Apheresis donation is a special form of blood donation that collects specific blood components, such as platelets, plasma or both. During the donation, an apheresis machine separates the desired components through centrifugation, while the remaining blood components (such as red blood cells) are returned to the donor. A platelet donation takes around 60-90 minutes, while a plasma donation takes about 30-45 minutes.

What are the advantages of apheresis donation?

Apheresis donation allows a larger amount of platelet or plasma to be collected from a single donor compared to whole blood donation. For instance, only one unit of platelets can be obtained from whole blood donation, whereas one apheresis donation can provide 4 to 6 units of platelets. This helps reduce a patient's exposure to blood from multiple donors, which is especially beneficial for patients who require frequent transfusions.

How often can you donate?

Your body can replenish plasma within 24 hours and platelets within 3 - 7 days. Therefore, you may donate plasma or platelets every 2 weeks, up to 24 times a year.



Apheresis Donation

Potential adverse reactions of apheresis donation

Apheresis donation is generally safe. However, adverse reactions may occasionally occur. Possible adverse reactions include:

- **Citrate Reactions (Low calcium level):** The anticoagulant (Citrate) used during the procedure may cause temporary low calcium level in some donors, leading to symptoms such as light tingling sensation or numbness in fingers and around the mouth, muscle cramping, etc. These symptoms usually subside after receiving an oral calcium tablet.
- **Red blood cells not returned:** In rare cases, red blood cells may not be returned to the donor, often due to bruising at the puncture site. If this happens, the donation will be stopped, and you will be deferred from donation for 8 weeks.
- **Allergic reactions:** Very rarely, donors may experience an allergic reaction to the materials used in the apheresis kit.
- **Air embolism:** This is extremely rare and may cause chest pain and/or difficulty breathing if air enters your blood vessels during the procedure.

Basic requirements for apheresis donation

- Aged 18-60
- Body weight: 55kg or above
- Good veins (preferably on both arms)
- Regular blood donors without adverse post-donation reactions



How do I join?

Apheresis donation is currently only available at the West Kowloon Donor Centre. If you want to be an apheresis donor, please approach our nurses. Our nurses will assess your vein conditions and collect additional blood samples for testing. Once the results have been reviewed and approved by our doctors, we will contact you for further assessment and donation.



Apheresis Donation
Information

Negative Blood Donation



What are the chances of my blood being Rh(D) negative?

There is a significant difference in the frequency of Rh(D) negative blood between Chinese and Caucasian population. About 1 in 370 of local Chinese have negative blood type while the figures for Caucasian people are ranging between 1 in 14 and 1 in 7. Therefore, Rhesus Rh(D) negative blood is rare in Chinese. Interestingly, Rh(D) negative blood is also called by the Chinese as “Panda Blood”, like pandas which are rare.

Why does the Blood Transfusion Service need Rh(D) negative blood?

A person with Rh(D) negative blood cannot receive positive blood. Since Rh(D) negative blood is rare, it is vital the Blood Transfusion Service should maintain sufficient stocks to ensure they are not in short supply. On the contrary, Rh(D) positive patients can receive negative blood: In fact, persons having blood type O Rh(D) negative is therefore known as the Universal Donor as it is compatible with all blood groups. This makes O Rh(D) Negative very special and being widely used in an emergency.

Your family members may also have this Rh(D) negative blood type.

Blood groups are inherited, so it is possible that other members of your family, especially siblings, may have the same blood type. We strongly encourage you to invite your family members to donate blood or call us at 27101202 to make an appointment.

Call us NOW to update your contact.

Occasionally, patient(s) of negative blood type may need your blood urgently and we will contact you for making a donation at a short notice. Please call us at 27101305 to leave your updated contact with us.



Rare Blood Donation

What is Rare Blood type?

Apart from the well-known ABO and Rh blood groups, many other blood groups exist, each characterized by a unique combination of sugars and proteins, known as antigens, found on the surface of red blood cells. As of end of 2024, the International Society of Blood Transfusion (ISBT) Working Party for Red Cell Immunogenetics and Blood Group Terminology announced that the 47 recognized blood group systems - including ABO and Rh, comprise 366 red cell antigens, emphasizing the remarkable diversity among individuals.

Your donations are extremely valuable, please keep donating regularly.

When only 1 in 1,000 people or fewer has the same combination of antigens as you, your blood type is considered **RARE**. The Blood Transfusion Service will process rare blood in a special way and frozen it for long-term storage, so that it is available when someone with the same rare blood type needs a transfusion. Your donations are extremely valuable, please keep donating regularly.

Your family members may also have this rare blood type.

As blood groups are inherited, it is possible that other members of your family, especially siblings, may have the same blood type. We sincerely encourage you to invite your family members to donate blood or call us at 27101202 to make an appointment.

Call us NOW to update your contact.

Occasionally, patient(s) of rare blood type may need your blood urgently and we will contact you for making a donation at a very short notice. Please call us at 27101305 to keep your contact information updated with us.

