



Give Blood Saves Lives

Blood Donation Info Pack

Blood Donation Information

Content

Basic Requirements	P.3
Blood Donation Preparation.....	P.4
Blood Donation Process	P.5
Applied Muscle Tension Exercise.....	P.6
Post Donation Advice.....	P.7
Blood donation information related to travelling history or residence aboard	
• Zika Virus	P.8
• Variant Creutzfeldt-Jakob Disease.....	P.9
• Malaria.....	P.10
• West Nile Virus.....	P.11
Explanation of Health Enquiry Questions.....	P.12-28
Other Services	
• Iron Supplement Programme.....	P.29
• Hong Kong Bone Marrow Donor Registry.....	P.30-32
• Apheresis Blood Donation.....	P.33
• Negative Blood Donor Programme.....	P.34





Basic Requirements

To protect both blood donors and recipients, the Blood Transfusion Service (BTS) must stringently screen donors (health history questionnaire, haemoglobin test and blood pressure checking etc.) and shall only accept blood donations from those who meet all the set eligibility criteria. The basic requirements are as follows:

- First time blood donor should be aged between 16 and 66 (till the day of his/her 66th birthday). With the annual health assessment and approval granted by the BTS medical officer, donors aged 66 or above and have completed any donation in the past 2 years, can be accepted for whole blood donation till the day of their 76th birthday.
- Donors aged 16 to 17 need to have parental consent at the first donation and can give blood three times in a year, with an interval of no less than 150 days between two consecutive donations.
- Adult (18 or above) males can give five times in a year, with an interval of no less than 75 days between consecutive two donations; whereas adult females can give four times in a year, with an interval of no less than 105 days between consecutive two donations.
- Body weight $\geq 41\text{kg}$ (90lbs or above)
- Have good health





Blood Donation Preparation



Adequate rest



Food consumption within 4 hours



Drink adequate water



Do not wear clothing with tight sleeves



Bring along Hong Kong Identity Card or valid travel document



Donors aged 16 to 17 need to have parental consent at the first donation. Donation interval should be no less than 150 days between consecutive two donations



Adult (18 or above) blood donor

Male : Donation interval should be no less than 75 days between two consecutive donations

Female: Donation interval should be no less than 105 days between two consecutive donations



Blood Donation Process



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

2. Complete the Blood Donation Registration 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 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)



4. Haemoglobin Test

The haemoglobin level is tested to make sure that donors do not have anemia and are not likely to become anemic after donation. The acceptable hemoglobin level for males is 13.0 - 18.0 g/dL and that for female is 11.5 - 16.5 g/dL.



5. Health Screening

Nursing staff performs health screening to review the eligibility of donors.

6. Blood donation

Our target blood collection volume is 350ml or 450ml. And the donation will last around 7 to 12 minutes. Before donation, our staff will perform blood pressure and pulse checking as well as skin disinfection. You should only feel a slight pain when our staff performs venipuncture for you. If the pain is unacceptable or you feel an electric shock sensation/numbness, please tell us immediately.

7. Rest

After blood donation, please stay in your donation chair and press on the venipuncture site for 5 minutes till the bleeding has stopped. You are recommended to stay in our resting area for another 15 minutes and enjoy the drinks and snacks to replenish the fluid loss.





Applied Muscle Tension Exercise

Vasovagal reactions may occasionally happen during blood donation that relate to a sudden drop of blood pressure. Some donors may experience dizziness / sweating while they usually mild and short-lasting.

Do these muscle exercises during blood donation to promote blood circulations so as to prevent vasovagal reactions.

1. Cross your legs.
2. Tense your inner thigh and abdominal muscles for 5 seconds, then relax for 5 seconds.
3. Repeat 5 times then switch legs and do it again.





Post Donation Advice



Please pay attention to the following 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 bruising of venipuncture site
- Avoid strenuous exercise

- **Iron-rich red blood cells are donated in the course of blood donation. Replenishment of iron is essential for human body to produce new red blood cells after each donation. Free oral iron supplements are provided to donors to enhance iron restoration. Donors are also advised to take iron-rich foods in regular diet.**

Handling of Adverse Reaction

Fainting

- Take a seat or lie down immediately and raise your legs to increase blood flow to the brain.
- Loosen tight clothing and belts.
- Keep calm, take slow and long deep breaths.
- Seek assistance from passers-by or call the Emergency Hotline 999 if condition does not improve.

Bruising

- Bruising may occur following blood donation if there is bleeding underneath the skin. It will gradually subside and disappear in 1-3 weeks.
- Apply cold pad to the bruise within 24 hours after blood donation; warm pad could be used for pain relief thereafter.

Skin allergy / Arm pain / Numbness

- If there is severe skin rash or itchiness, redness, swelling, pain or numbness around the venipuncture site, please contact the Blood Transfusion Service or consult your physician immediately.

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 at

Tel: 27101333 (Office hours) ; 27101210 (Outside office hours)

Blood donation information related to travelling history or residence aboard

Zika Virus

In view of the significant decline on the global Zika virus outbreaks, together with the implementation of the screening test for Zika virus, blood donors are **no longer required to defer** for blood donation but to declare with our medical staff regard condition(s) stated below:



In the past 28 days,

- 1) travelled to or resided in the Zika virus affected area
- 2) had sexual contact with a man who (from the date of last sexual contact)
 - travelled to or resided in the Zika virus affected area in the past 3 months
 - has been diagnosed with Zika virus infection

While donors who had been diagnosed with Zika virus infection will still be required to defer for 180 days from the day of recovery.

For details on updated areas with ongoing Zika virus transmission, please refer to the following information (as at 11 November 2019).

	Location	地區		Location	地區
A	American Samoa	美屬薩摩亞	I	India	印度
	Angola	安哥拉		Indonesia	印尼
	Anguilla	安圭拉		Jamaica	牙買加
	Antigua and Barbuda	安提瓜和巴布達		Laos	老撾(寮國)
	Argentina	阿根廷		Malaysia	馬來西亞
	Aruba	阿魯巴		Maldives	馬爾代夫
B	Bahamas	巴哈馬	M	Marshall Islands	馬紹爾群島
	Bangladesh	孟加拉		Martinique	馬提尼克島
	Barbados	巴巴多斯		Mexico	墨西哥
	Belize	伯利茲		Micronesia, Federated States of	密克羅尼西亞(聯邦)
	Bolivia	玻利維亞		Montserrat	蒙特塞拉特島
	Bonaire	博內爾		New Caledonia	新喀里多尼亞
	Brazil	巴西		Nicaragua	尼加拉瓜
	Burkina Faso	布基納法索		Nigeria	尼日利亞
	Burma (Myanmar)	緬甸		Palau	帕勞
C	Burundi	布隆迪		Panama	巴拿馬
	Cambodia	柬埔寨	P	Papua New Guinea	巴布亞新幾內亞
	Cameroon	喀麥隆		Paraguay	巴拉圭
	Cape Verde	佛得角共和國		Peru	秘魯
	Cayman Islands	開曼群島		Philippines	菲律賓
	Central African Republic	中非共和國		Puerto Rico	波多黎各
	Colombia	哥倫比亞		Saba	薩巴島
	Cook Islands	庫克群島		Saint Barthélemy	聖巴泰勒米島
	Costa Rica	哥斯達黎加		Saint Kitts and Nevis	聖基茨和尼維斯
	Cuba	古巴		Saint Lucia	聖盧西亞
D	Curacao	庫拉索		Saint Martin	聖馬丁島
	Côte d'Ivoire (Ivory Coast)	象牙海岸		Saint Vincent and the Grenadines	聖文森特和格林納丁斯
	Dominica	多米尼克		Samoa	薩摩亞
E	Dominican Republic	多米尼加共和國		Senegal	塞內加爾
	Easter Island - Chile	智利復活節島		Singapore	新加坡
	Ecuador	厄瓜多爾		Sint Eustatius	聖尤斯特歇斯
	El Salvador	薩爾瓦多		Sint Maarten	聖馬丁
F	Ethiopia	埃塞俄比亞		Solomon Islands	所羅門群島
	Fiji	斐濟		Suriname	蘇里南
	France	法國	T	Thailand	泰國
	French Guiana	法屬圭亞那		Tonga	湯加
G	French Polynesia	法屬波利尼西亞		Trinidad and Tobago	特立尼達和多巴哥
	Gabon	加蓬		Turks and Caicos Islands	特克斯和凱科斯群島
	Grenada	格林納達		Uganda	烏干達
	Guadeloupe	瓜德羅普島		United States (Continental US)	美國(美國本土)
H	Guatemala	危地馬拉	V	Vanuatu	瓦努阿圖
	Guinea-Bissau	幾內亞比紹		Venezuela	委內瑞拉
	Guyana	圭亞那		Vietnam	越南
	Haiti	海地		Virgin Islands, British	英屬維爾京群島
	Honduras	洪都拉斯		Virgin Islands, United States	美屬維爾京群島



Variant Creutzfeldt-Jakob Disease

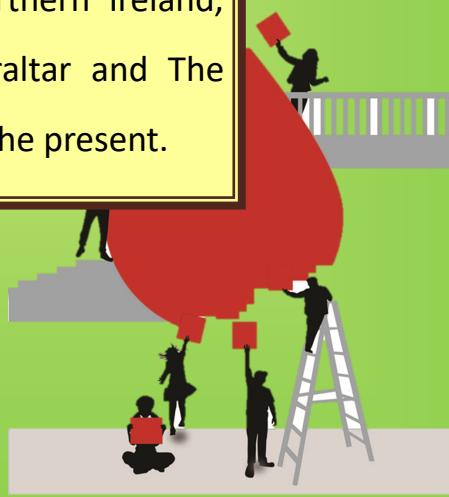
Variant Creutzfeldt-Jakob disease (vCJD) is related to the consumption of bovine products contaminated with Mad Cow Disease. There is no test for vCJD in humans that could be used to screen blood donors and to protect the blood supply. Therefore, the Hong Kong Red Cross Blood Transfusion Service has implemented the precautionary measures since 1999 to eliminate the theoretic risk of vCJD transmission through transfusion. The latest donor eligibility rules related to vCJD are as follow:



Those who have resided in Europe for five or more years are now eligible to donate blood,

EXCLUDING those who:

- had spent a total of three or more months cumulatively in the United Kingdom (UK) (i.e.: England, Northern Ireland, Scotland, Wales, The Isle of Man, The Channel Islands, Gibraltar and The Falkland Islands) between 1 January 1980 to 31 December 1996;
- had spent a total of five or more years cumulatively in France or Ireland between 1 January 1980 to 31 December 2001; or
- have received blood transfusion in the UK (i.e.: England, Northern Ireland, Scotland, Wales, The Isle of Man, The Channel Islands, Gibraltar and The Falkland Islands), France or Ireland between 1 January 1980 and the present.



Malaria

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

Malaria is commonly found in many parts of tropical and sub-tropical areas where the climate is warm. Malaria is a vector-borne communicable disease transmitted by an infected female Anopheline mosquito. Malaria is not transmitted from person to person. However, malaria can be transmitted through contaminated blood or blood product transfusion, organ transplant, or shared needles or syringes.

As transfusion transmitted malaria still occasionally happens and there is no proven way to clearly distinguish infected and non-infected blood, the Blood Transfusion Service in general has to rely on the travel history and residence records of donors to decide whether they are suitable 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

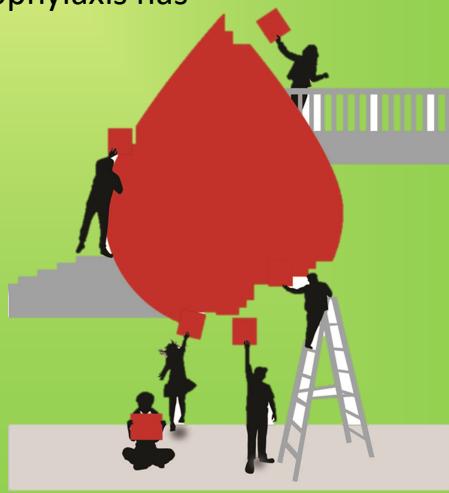
* After living more than 5 years in a country or countries where malaria is found, you need to fulfil this requirement before you can donate blood in Hong Kong. If you have travelled to a malaria-endemic area in between these 3 years, the accumulated period will be reset, the counting of the 3 years will be started again upon your return.

Note:

1. The above deferral periods apply whether or not anti-malarial prophylaxis has been taken.
2. For malaria-endemic area, please visit the following website:

www.cdc.gov/malaria/travelers/country_table/a.html

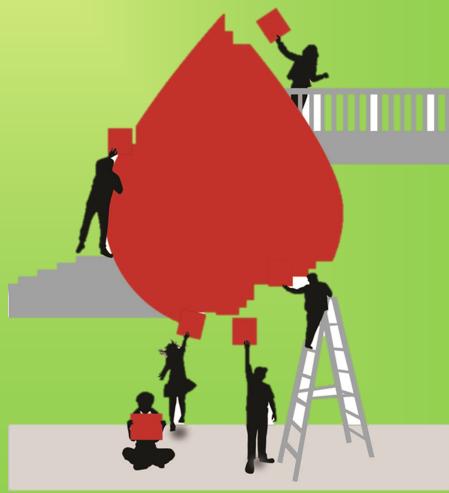
www.who.int/malaria/publications/country-profiles/en/



West Nile Virus

West Nile Virus (WNV) is an infection transmitted through mosquito bite. It has been reported in the US since 1999. Blood transfusion is one of the transmission mode of WNV. To ensure blood safety, the Hospital Authority (BTS) Expert Panel on Blood and Blood Products Safety has made reference to the FDA's latest guidelines and recommended BTS to implement the following precautionary measures:

- Prospective donors who have been to North America 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 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 nursing staff.
- Blood donors should telephone us (Tel: 2710 1201) as soon as possible 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 need of transfusion therapy. To achieve this, BTS, like most other countries, has been collecting blood only from voluntary non-remunerated blood donors. All blood collected will be tested for

- ◊ Hepatitis B Antigen and Antibody
- ◊ Hepatitis C Antigen and Antibody
- ◊ HIV Antigen, Antibody and Virus
- ◊ Human T-lymphotropic Virus
- ◊ Syphilis Antibody etc.

To ensure both donor and recipient safety, all donors (including new or repeat) are required to undergo a health screening, which consists of completion of questionnaire, followed by a private interview by our nurses. The questions in the Blood Donation Registration Form will enable BTS to comprehensively appraise the current and past health conditions of blood donors for determining their eligibility to give blood.

Throughout the blood donation process, donor can withdrawal from the blood donation process if they believe that their blood is not suitable for transfusion.

In order to give you a better understanding, 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 :

A1) Are you feeling well enough to give blood today?

This question intends to ensure the safety of a person in making a blood donation. If you are not feeling well enough, giving blood may increase the chance of adverse reactions during or after donation. You are welcome to donate on another day when feel fit.

A2) Are you currently under a doctor's treatment, taking any medication (including herbal medicine) or awaiting test result?

This question is again for the donor's well being. If you are currently under medical treatment or medical follow up, and/or awaiting test results, there is a possibility that your current health status may not be suitable for blood donation.

For recipient safety, even a small amount of medication may affect the quality of the component(s) in the blood and/or have harmful effects on the recipients. Always clarify your medication with our nurse.





Rationale for Questions on the Blood Donation Registration Form

General Health Screening :

A3) 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)
- ※ cancers
- ※ endocrine or metabolic diseases (e.g. diabetes, thyroid problems)
- ※ 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)

This is another question to assess the fitness of donors to give blood. In fact, donating blood could complicate some of the conditions listed above. Convulsion and epilepsy are good examples. However, by responding “yes” to any of the above questions does not always result in ineligibility. With reference to the set guidelines, the decision will be made depending on the nature, severity of symptoms or symptom-free interval. It is important to discuss in detail with our nurses.



Rationale for Questions on the Blood Donation Registration Form

General Health Screening :

A4) Have you ever been diagnosed of G6PD deficiency?

Persons of this condition should notify our nurse because the blood collected cannot be used as fresh whole blood for neonatal exchange transfusion.

A5) Have you ever taken the following drugs?

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



Aspirin and aspirin containing medications affect the function of platelets in the blood. For those who are taking prophylaxis dosage as primary prevention within the past 3 days, the platelet portion will be discarded from the donated blood. People who take aspirin on regular basis for treatment purpose should not give blood. Our nursing staff will provide individual assessment.

For recipient safety, even a small amount of medication may affect the quality of the component(s) in the blood and/or have harmful effects on the recipients. Always clarify your medication with our nurse.

A6) Have you ever had drug allergy?

This question is to assess the fitness of donors to give blood. With reference to the set guidelines, the decision will be made depending on the nature of allergy, severity of symptoms or symptom-free interval. It is important to discuss in detail with our nurses.



Rationale for Questions on the Blood Donation Registration Form

General Health Screening :

A7) If you are female,

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

Pregnant women are required to absorb more iron for healthy foetus. It is relatively common for women to develop iron deficiency during pregnancy and the situation may be exacerbated by giving blood. The same applies to female who had given birth or had an abortion recently. We advise female with such history to wait for 6 months before they make a blood donation again.

To ensure adequate maternal iron level, blood donation should be deferred during lactation period.

Hormones for treating infertility prepared prior to 1980s were probably of human origin and have a potential risk of transmitting CJD. Our nursing staff will provide individual assessment to donors who have received treatment for infertility.





Rationale for Questions on the Blood Donation Registration Form

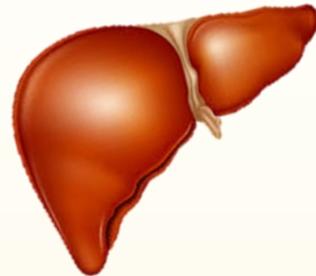
HIV/ AIDS, Hepatitis B and Hepatitis C Infection Risk Assessment:

(Some of the questions below are related to donor's sexual life. Sexual contact in the Registration Form refers to oral, vaginal or anal sex, with or without the use of condom.)

B1) Have you been diagnosed of or suspected to have the followings?

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

Hepatitis B and C can be transmitted through blood transfusion and may result in chronic hepatitis and other complications. These 2 conditions require permanent deferral. People who have been tested positive for HIV or suspect oneself being HIV carriers will also be permanently deferred.



B2) Have you ever had sex for money?

The question "sex for money" aims at excluding those people whose job or lifestyle may put them at a higher risk of contracting HIV-AIDS or venereal disease.

B3) Have you ever used or injected yourself with narcotics or non-prescribed medication?

A history of injection drug use warrants permanent deferral because the practice will lead to a higher risk of HIV-AIDS and hepatitis C infection. Persons with a history of non injection drug use are advised not to give blood for 12 months.

B4) Have you ever received clotting factor concentrates?

Regarding clotting factor concentrates, two issues are of concern here. In the early 1980s, clotting factors for hemophiliacs were not heat-treated and there was a potential risk of HIV and hepatitis C infection. Secondly, people who required clotting factor concentrates are usually because of coagulation factor deficient, which makes them less ideal to be blood donors.



Rationale for Questions on the Blood Donation Registration Form

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

(Some of the questions below are related to donor's sexual life. Sexual contact in the Registration Form refers to oral, vaginal or anal sex, with or without the use of condom.)

B5) Are you aware of your sexual partner(s)

- ※ has been diagnosed of HIV infection/ AIDS?
- ※ has ever been a sex worker?
- ※ has ever used or injected narcotics or non-prescribed medication?
- ※ has ever received clotting factor concentrates?

People who have been tested positive for HIV or suspect oneself being HIV carriers will be permanently deferred. The same applies to those who have partner(s) whom may have been infected with HIV. Male or female sex worker, persons who abuse drug/ self inject drug, persons who have received clotting concentrates are all at a higher risk of HIV-AIDS and/or hepatitis C infection. Donors who have a history of having sex with them must observe a 12-month deferral period before donating blood.

B6) If you are male, have you ever had oral or anal sex with a man?

If you are female, have you ever had sexual contact with a bisexual man (one who has had oral or anal sex with another man)?

According to the statistics, donors with the above sexual experience may be at higher risk of having an undiagnosed infection which could be passed to anyone receiving their blood. Nurses will offer recommendations individually for the concerned donors.



Rationale for Questions on the Blood Donation Registration Form

CJD and vCJD (Mad-cow Disease) Infection Risk Assessment

- C1) Between 1 January 1980 and 31 December 1996,**
- **have you spent a total of three or more months in the UK?**
- C2) Between 1 January 1980 and 31 December 2001,**
- **have you spent a total of five or more years in France or Ireland?**
- C3) Between 1 January 1980 and the present,**
- **have you received blood transfusion in the UK, France or Ireland?**



The above questions focused on investigating the risk of being exposed to vCJD or human equivalent of Mad Cow Disease due to the donors' residence or the transfusion treatment they received in those places during the said period. There is now evidence from a small number of case reports involving patients and laboratory animal studies that vCJD can be transmitted through transfusion. There is no test for vCJD in humans that could be used to screen blood donors and to protect the blood supply. This means that blood programmes must take special precautions to keep vCJD out of the blood supply by avoiding collections from those who have been where this disease is found. Details can refer to the information material of Variant Credutzfeldt-Jakob Disease.

- C4) Have you ever received**
- **pituitary derived human growth hormone or human gonadotrophin?**
 - **organ or tissue transplant?**

Relating to concerns about CJD, individuals who received pituitary derived human growth hormone or 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.



Rationale for Questions on the Blood Donation Registration Form

Other Recent Infection or Vaccination Risk Assessment:

D1) In the past 1 week, have you had any dental procedure (including scaling, dental extraction, etc.), open wounds or skin lesions?

Even healthy people have colonization of bacteria in the mouth and on the skin. However, dental procedure, open wounds or skin lesions may cause bacteria breaching the mucous membrane or skin barrier and entering the blood. Individuals having such conditions will be asked to come back later if they are still interested in giving blood.



D2) In the past 2 weeks, have you had symptoms of flu, fever, headache, eye pain, muscle or joint pain, vomiting, enlarged lymph nodes or skin rash?

This is a general question to screen for any signs of infection. Besides, nurses will base on donor's symptoms and related information to assess for any risk of contracting Dengue fever, SARS or West Nile Virus infection and offer recommendations.



Rationale for Questions on the Blood Donation Registration Form

Other Recent Infection or Vaccination Risk Assessment:

D3) In the past 4 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. History of contact with an index case warrants a deferral of 3 to 4 weeks to ensure the safety of blood recipients. If you are not sure of the possible exposure, please discuss it with our nurse.

- have you had any vaccinations e.g. Hepatitis A, Hepatitis B or tetanus?

Different vaccines affect blood donation differently, depending on whether it is prepared from killed or live attenuated virus or bacteria or by recombinant technologies.

If you had received	Temporarily deferred for
inactivated vaccines: Include: Influenza, Human Papillomavirus (HPV), Pneumococcal, Tetanus, Hepatitis A, Cholera, Typhoid (injection), Diphtheria, Poliomyelitis (injection), Pertussis vaccines etc.	1 day
recombinant vaccine: Include: Hepatitis B vaccine etc.	1 week
live attenuated vaccine: Include: BCG, Measles, Mumps, Rubella, Yellow fever, Poliomyelitis (oral), live attenuated typhoid fever (oral), Herpes zoster (Shingles), Varicella zoster (Chicken pox) vaccines etc.	4 weeks
one of the following COVID-19 vaccines: <ul style="list-style-type: none"> • Inactivated virus technology platform, e.g. CoronaVac by Sinovac Biotech (Hong Kong) Limited • mRNA technology platform, e.g. Comirnaty by Fosun Pharma in collaboration with the German drug manufacturer BioNTech (BNT162b2 mRNA vaccine) • Non-replicating viral vector technology platform, e.g. COVID-19 vaccine by AstraZeneca, in collaboration with the University of Oxford 	1 week

Meanwhile,

- prospective donor who experienced localized side effects (i.e. pain or redness at the injection site) after vaccination should be deferred until side effects have completely resolved;
- prospective donor who experienced other post vaccination side effects such as fever, muscle ache, joint pain and rash, etc should be deferred for 14 days after side effects have resolved.



Rationale for Questions on the Blood Donation Registration Form

Other Recent Infection or Vaccination Risk Assessment:

D3) In the past 4 weeks,

- have you had diarrhea?

People who have history of diarrhea may have the causative pathogen in their circulation. Sometimes even all the symptoms have subsided, the responsible pathogen may take a longer time to be cleared from the body. Therefore, our nurse will base on history and symptoms of diarrhea to decide on the deferral period.



D4) In the past 3 months,

- have you travelled outside Hong Kong?

Some areas outside Hong Kong are endemic for malaria. Since malaria can be transmitted through blood transfusion, donors who have travelled to a malaria endemic are advised to defer blood donation for 3 months from the date returning to Hong Kong.

Please also refer to the section of “Information on Travel outside Hong Kong / Previous residents of other countries (Variant Creutzfeldt-Jakob Disease (vCJD), Malaria and West Nile Virus)” for details.





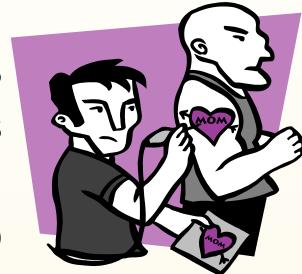
Rationale for Questions on the Blood Donation Registration Form

Other Recent Infection or Vaccination Risk Assessment:

D5) In the past 12 months,

- have you had tattoo*, acupuncture, ear or body piercing, or accidental needle stick injury?

These activities/accidents carry a risk of hepatitis (Hepatitis B or C) and HIV– AIDS infections. A deferral of 12 months is recommended to ensure that a person who has been exposed to these infections would have time to develop antibodies that can be detected by blood test.



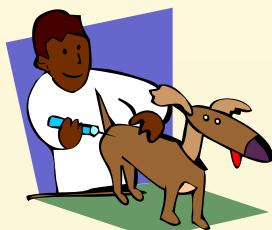
* Tattoo includes permanent and semi-permanent cosmetic tattoos, such as microblading of eyebrows, eyelines and lips etc.

- have you been given Hepatitis B Immune Globulin?

Hepatitis B immune globulin is intended for passive immunization after exposure of hepatitis B. Its use implies a previous exposure and therefore a deferral of 12 months is needed if an individual has received it.

- have you been bitten by any animal?

The above questions focused on investigating the risk of exposure to rabies infection. When humans are bitten or scratched, or when their broken skin is licked by an infected animal, the virus in the saliva of the infected animal enters the human body through the wound and travels through nerves to the brain, leading to encephalitis. Nurses will offer recommendations individually for the concerned donors.





Rationale for Questions on the Blood Donation Registration Form

Other Recent Infection or Vaccination Risk Assessment:

D5) In the past 12 months,

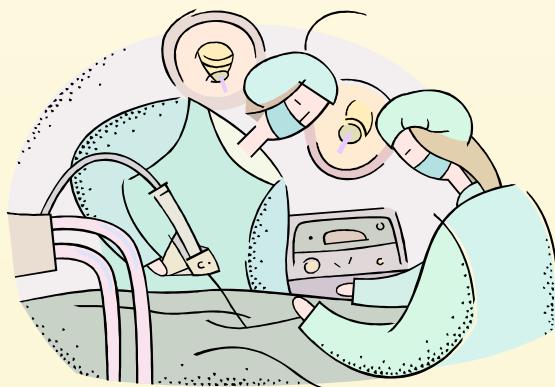
- have you undergone surgical operation (including endoscopic examination, treatment involving the use of catheters)?
- have you received blood transfusion?

Question on recent surgery is meant for ensuring the well-being of blood donors. In fact, individuals who have fully recovered from operations can be accepted.

As a general rule:

- ※ Elective minor operations, donation accepted after full recovery for 3-month deferral period.
- ※ Elective major operations, donation accepted after 6-month deferral period.
- ※ Major emergency operations, donation accepted after 12-month deferral period.

Concerning the question on blood transfusion, although the risk of infection from blood transfusion is extremely low, for extra safety precaution for blood recipients, a 12-month deferral is required if there is such history.





Rationale for Questions on the Blood Donation Registration Form

Other Recent Infection or Vaccination Risk Assessment:

D6) Have you been diagnosed of the following infectious diseases?

- malaria
- venereal disease
- tuberculosis (TB)
- glandular fever



This question intends to solicit information on the donor's history of infectious disease with reference to some specific ones.

Malaria

- As an extended question of travel history, people who have malaria would be deferred for 3 years from the date of cure and reinstated for blood donation if they remain asymptomatic during the period.

Venereal disease

- Rationale for asking about venereal disease is two folds. Venereal disease may be transmissible through blood transfusion. People who had such history are in general at a higher risk of HIV-AIDS. Positive history of venereal disease would incur permanent deferral.

Tuberculosis (TB)

Tuberculosis (TB) is prevalent in our locality. Our current policies are:

- Persons with 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 family contacts of active TB are deferred until the attending physician or Department of Health has given clearance.

Glandular fever

- Persons with glandular fever are also advised not to give blood until 6 months after full recovery.



Rationale for Questions on the Blood Donation Registration Form

Other Recent Infection or Vaccination Risk Assessment:

D6) Have you been diagnosed of the following infectious diseases?

- SARS
- Dengue Fever
- West Nile Virus infection
- Chikungunya

In view of the previous outbreak of SARS infection in Hong Kong, persons who have contacted SARS may remain asymptomatic in the early phase of infection after exposure while their blood may harbor the virus. Therefore, those who have a close contact with patients of confirmed or suspected SARS will need to be deferred for 3 weeks from the last date of contact.

In accordance with WHO's recommendations, people who have a history of confirmed or suspected SARS will be deferred until 3 months after a complete recovery from SARS.

Dengue fever, West Nile Virus infection and Chikungunya are transmitted by mosquito bite and transmission via blood transfusion have been documented in these infections. People who have been suffered from these infections should deferred from blood donation temporarily.





Rationale for Questions on the Blood Donation Registration Form

Other Risk Factors Assessment:

E1) Have you ever donated blood under another name?

This question is intended to help BTS to retrieve/ integrate the related important information/ records, including the blood group and past infectious markers screening results from one person.



E2) 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.

E3) 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 would be deferred till 3 years of continued residence in Hong Kong or other non-endemic countries.





Rationale for Questions on the Blood Donation Registration Form

Other Risk Factors Assessment:

E4) Will you be undertaking any hazardous sport today?



e.g. rock climbing, diving or flying

This also intends to protect donors. You are advised not to take vigorous sports on the same day after donation. Undertaking hazardous sports immediately after donation could compound the potential risks of post donation adverse reactions.

E5) 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

This is of similar rationale as in E4. Whenever possible, it is preferable for people of such occupation(s) to donate blood at the end of his/her working day or shift.

Supplementary Question:

F1) Are you aware of your sexual partner(s)

- Has been diagnosed of Zika infection ?
- Has been resided or returned from the Zika virus affected areas in the past 3 months ?

Zika virus has been found in blood and body fluid after infection; whereas it can stay in semen up to 3 months. Therefore, the Zika virus could be transmitted through blood transfusion, sexual contact or perinatal transmission. Please refer to the section of “Zika Virus” for details.

Iron Supplement Program

Function of Iron

Iron is an essential component of haemoglobin. Iron deficiency could lead to a gradual drop of haemoglobin level and finally result in anaemia. Haemoglobin carries oxygen from the lungs to body cells. If anaemia occurs, the body does not get enough oxygen-rich blood. As a result, the anaemic patient may look pale and develop fatigue, weakness, dizziness, shortness of breath, palpation etc.

Iron and Blood Donation

Iron-rich red blood cells are donated in the course of blood donation. Replenishment of iron is essential for human body to produce new red blood cells after each donation. Free oral iron supplements are provided to donors to enhance iron restoration. Donors are also advised to take iron-rich foods in regular diet.



Oral Iron Supplement

The iron supplement will turn your stool to a darker colour. Stomach upset and constipation are possible side effects. To enhance oral iron supplement efficacy, please follow the advice:

- Take Vitamin C rich food together with iron supplement.
- Avoid tea, milk, coffee, antacids and calcium supplements two hours before and after taking iron supplement, those foods would impair iron absorption.
- Empty stomach is better for iron absorption, while iron supplement may also be taken with food or after meal to reduce side effect like stomach upset.
- Increase fiber and fluid intake to relieve constipation. Extend the dosing interval may also work.
- If any intolerable side effect is encountered, you could choose to stop the iron supplement.



Hong Kong Bone Marrow Donor Registry

Introduction

Every year, more than a thousand adults and children in Hong Kong are diagnosed with leukaemia and other serious blood diseases. Some of these diseases can be life-threatening, but are not always incurable. For many patients, 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 is a matched donor?

The most important factor is to match both donor's and recipient's tissue types (also known as "HLA antigens"). Red blood cells are grouped into types A, B, AB and O, etc. As for white blood cells, they also have tissue types mainly classified into 4 groups, namely A, B, C and DR groups. Each group has a large number of antigens and hence there are thousands of different tissue types for white blood cells. Prospective donors will need to have tested to determine his/her tissue types. If the tissue types of a donor completely match with the patient, he/she will be a matched donor.



BONE MARROW DONATION REGISTRATION

Registration Criteria:

- Good health
- Aged between 18 and 50

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
- Receive a Marrow Donor Card with a donor number
- 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



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.



Matching &
Donation Logistics

Bone Marrow Donation



2 – 3 weeks prior to donation: Donor will be invited for Physical examination such as chest X-ray, ECG.....etc. Then we will review the workup reports and confirm details of donation.

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



Donation day: Donor will be put under general anesthesia. Two needles will be inserted into donor's pelvis (not spinal cord) to extract bone marrow.

The donor may experience some pain at the puncture site, fatigue or stiffness, usually without complication. In general, the pain will gradually subside and many donors do not require any pain killers. Since HSC have the regeneration potential, the donated cell will be replenished by the body within a short period of time.

Post operation: Donor will be under observation in the recovery room until stable. A visitation will be arranged by HKBMDR staff. Donor will be discharged after staying one night for observation.



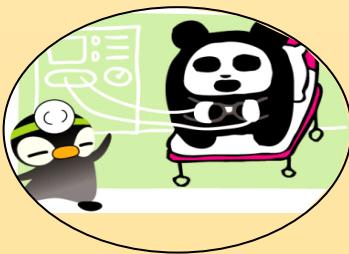
Generally, donor will recover and return to normal in two weeks. Intense exercise or physical activities are not encouraged during this period.

Peripheral Blood Stem Cell Donation



2 – 3 weeks prior to donation: Donor will be invited for Physical examination such as chest X-ray, ECG.....etc. Then we will review the workup report and confirm details of donation.

In order to be able to donate enough Peripheral Blood Stem Cell Donation (PBSC) for a transplant, more of the stem cells need to be mobilized from the marrow into the blood stream. Donor is requested to receive Granulocyte Colony Stimulating Factor (G-CSF) subcutaneous injection every day for three days before the donation.



Donating PBSC is through a standard process called apheresis. During donation, a needle will be placed into each of your arms. Blood will be taken from vein in one arm and directed into a blood cell separator machine. The blood is spun at high speed and the blood cells will separate into layers. PBSC will be collected, while the plasma, red blood cells and other blood cells are returned to you through the other arm. Generally, most of the PBSC donations are completed in one apheresis session which may take up to four hours and the volume is less than 300-350 ml. Hospitalization and General Anesthesia are not required. Donor can be discharged on the same day.

Generally, donor will recover and return to normal in one to two days.



Apheresis Donation

Blood is a mixture of Red Blood Cells, White Blood Cells, Platelets and Plasma. The blood you donate contains all the blood components and it is called "whole blood". Most of the whole blood collected will be separated into different blood components so as to benefit more patients.

Generally speaking, only one unit of platelets is obtained from the centrifugation of a single unit of whole blood donation whereas one Apheresis donation itself can give 4 to 6 units of platelets. The latter can significantly reduce the donor exposure for the patients who need a large dosage of platelets for treatment.

Apheresis is a kind of blood donation in which the blood of a donor is passed through an advanced machine that separates out plasma and platelets through centrifugation and returns the remainder such as red blood cells to the circulation. A platelet donation takes around 60-90 minutes while a plasma donation takes about 30-45 minutes.



To be an apheresis donor, you have to fulfill the following basic criteria:

- Aged 18-60
- Weight \geq 55Kg
- Good veins preferably on both arms
- Regular blood donors without adverse post-donation reactions



How do I join?

Apheresis donation is only available at West Kowloon Donor Centre. If you want to be an apheresis donor, please approach our nursing staff. We will take blood samples for you after assessment. Once the blood results are reviewed by our doctor, we will contact you for follow up.



Apheresis Donation

Negative Blood Donor Programme

The Rhesus (Rh) blood group system is another important blood group system after ABO. The Rhesus factor is a protein that is present (or absent) on the surface of red blood cells. People who have the Rhesus factor are considered to have a “positive” blood type and those don’t are considered to have a “negative” blood type, while negative blood causes no harm to your health. Rhesus factor (Rh) is present on red blood cell in most Chinese. Only 1 in 370 Chinese typed are Rh negative. Caucasian are having a much higher incidence of Rh negative blood, up to about 1 in 7.



Why does the Blood Transfusion Service need negative blood?

A person with Rhesus negative blood cannot receive positive blood. Since it is relatively rare, it is vital the Blood Transfusion Service maintains sufficient stocks of negative blood to ensure supply. Furthermore, Rhesus positive patients can receive negative blood: O negative is known as the Universal Donor as it is compatible with all blood groups. This makes O Negative very special and widely used, especially in an emergency when minutes count.

Your family members may also have this 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 and bring along the invitation card enclosed to our blood donor centres or call us at 27101201 / 27101243 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.

