

You can expect to experience some fatigue after donating bone marrow. You'll likely also feel some soreness where the needle was inserted, which donors describe as being like the soreness that comes from hard exercise or a fall on the ice. Some donors also experience discomfort from the breathing tube used during the procedure.

These side-effects usually last for a few days, though some people may experience them for several weeks.

Many bone marrow donors are released from the hospital the same day they undergo the collection procedure. Most need to take several days off work and avoid strenuous activity for at least two to three weeks – which is approximately how long it takes to regenerate the donated bone marrow.

### What if I'm a match?

Being a match is an exciting experience. But it is still only a first step. Your blood needs to undergo additional testing to determine the full extent of your compatibility. And you will also need to be tested for transmissible diseases.

If you are selected to donate, you will be contacted by a registered nurse from OneMatch who will guide you through each step of the process. You will be required to complete a physical examination and routine medical tests. These tests may include a chest X-ray and electrocardiogram, as well as blood and urine analyses. They are intended to ensure that you are healthy and physically able to be a donor.

During this time you should address any concerns you may still have. If you agree to proceed, the patient will be notified and the elimination of his or her diseased bone marrow will begin.

### What if I say no?

You are free to decline to donate at any point in the process and your decision will remain entirely confidential. You should be aware that there is a serious risk of death to the patient if you decide to withdraw after his or her radiation or chemotherapy treatment has begun. You will be told in advance exactly when the patient will start this treatment and given every opportunity to decline before that date.

If you withdraw from OneMatch, all of your personal information collected up to the date of your withdrawal will remain in OneMatch Stem Cell and Marrow Network but no further personal information about you will be collected or added to your record. Once you have withdrawn from OneMatch your personal information will no longer be used to match you with a patient who requires a transplant. If you decide to withdraw from OneMatch, Canadian Blood Services may continue to use or disclose information derived from your personal information as part of a pool of data that does not identify you.

### What will it cost me to be a donor?

OneMatch will reimburse expenses you incur as a result of donating stem cells. For example, if you have to go to another city for the procedure, we cover travel and accommodation costs for you and a companion. While the procedure and recovery will take you away from work for a short time, experience has shown that most employers are willing to give sick time or paid leave to stem cell donors.

### What if I move?

It is very important that you let us know when your contact information changes. This can be done by calling us toll-free or visiting our Web site ([www.onematch.ca](http://www.onematch.ca)). We also appreciate being advised if your health status has changed in a way that may affect your eligibility to donate.

### What are stem cells?

Stem cells are immature cells that can become either:

- red blood cells (which carry oxygen),
- white blood cells (which fight infection) or
- platelets (which help to stop bleeding).

Bone marrow is a rich source of stem cells, but stem cells can also be found in our circulating blood (also known as peripheral blood) and umbilical cord blood. OneMatch donors may be asked to donate either stem cells from bone marrow or blood depending on which product the patient requires.

### What is a stem cell transplant?

In a stem cell transplant, a patient's diseased bone marrow is replaced with healthy stem cells from a donor. To prepare for the transplant, the recipient is usually given high doses of radiation and/or chemotherapy to destroy the diseased marrow. At this point, stripped of the ability to manufacture life-giving blood cells, the recipient is extremely vulnerable. They will not survive unless the donor proceeds with the donation. Once the healthy stem cells are collected from the donor, it is given intravenously to the recipient as soon as possible.

### What diseases are treated with stem cell transplants?

A variety of diseases and disorders are treated with stem cell transplants including blood-related diseases such as leukemia, aplastic anemia and inherited immune system and metabolic disorders.

### What do you mean by a "match"?

Donors and patients are matched according to the compatibility of inherited genetic markers called Human Leukocyte Antigens (HLA). These antigens are inherited from your parents. Up to 12 antigens are considered important in the matching process.

### Is there a matching donor for every patient who needs a stem cell transplant?

Even with millions of donors on registries worldwide, a perfect stem cell match isn't always available. Some patients have uncommon antigens that may be very difficult to match. In these instances, even with everyone's best efforts, it may be impossible to find a donor. It is for this reason that OneMatch is committed to building the diversity of the database by increasing the number of potential donors who possess unusual antigens.

### Do people on OneMatch ever get to know the individuals they are helping?

Exchange of information between donor and recipient is not permitted for at least one year after transplant. After a year, some registries will allow correspondence, while others never permit any exchange of information. We will let you know about the policy in your recipient's country one year following the transplant.

### What is the outlook for patients who receive stem cell transplants?

Transplant outcome depends on many factors including the level of compatibility between the donor and the recipient, the stage of the disease, the type of disease, the age of the recipient and the age of the donor. There are not any guarantees for the patient, but a transplant may be the best hope of returning to good health.



## OneMatch Information for New Registrants



Canadian Blood Services  
*it's in you to give*

## What is OneMatch all about?

OneMatch Stem Cell and Marrow Network is responsible for finding and matching volunteer donors to patients who require stem cell transplants. Fewer than 30 per cent of patients who need stem cell transplants find a compatible donor within their own family. The rest rely on those who have volunteered to donate stem cells to anyone in need.

Because Canadian Blood Services' OneMatch is a member of an international network of registries, we can also search more than 11 million donors on over 50 registries in other countries. By agreeing to make their donor data available worldwide, international registries have significantly increased the odds of being able to find a matching donor for any patient, anywhere in the world.

**IMPORTANT NOTE: If you are registered in the Unrelated Bone Marrow Donor Registry (UBMDR), you are already a part of OneMatch. You do not need to register again.**

To update your contact information, this can be done by calling us toll-free or visiting our Web site ([www.onematch.ca](http://www.onematch.ca))

If you are uncertain about your registration status, please contact us at 1 888 2 DONATE.

## Who is eligible to join OneMatch?

You may be eligible to join if you are between 17 and 35 years old and meet certain health criteria.

Health problems that could make you ineligible include some heart conditions, cancer, blood diseases, insulin-dependent diabetes and infectious diseases such as HIV/AIDS, hepatitis B and C.

There are also height and weight restrictions in place to protect both donors and recipients. People who do not meet the program's height/weight criteria may be at a higher risk when undergoing surgery.

A person's best chance of finding a matching donor is within his or her own ethnic group. As such, it is important that the donors on OneMatch reflect Canada's rich ethnic diversity. It is also important for the future of OneMatch to attract young donors.

## Can I be tested specifically for my relative?

Your relative's transplant physician is responsible for finding potential matches within your family and arranging for this testing.

Height/Weight Chart			
This chart displays the maximum weight for a person to join OneMatch.			
Height		Maximum Weight at Enrolment	
ft/in	cm	lbs	kgs
4'10"	148	191	87
4'11"	150	198	90
5'	153	204	93
5'1"	155	211	96
5'2"	158	218	99
5'3"	161	225	103
5'4"	163	233	106
5'5"	166	240	109
5'6"	168	247	113
5'7"	171	255	116
5'8"	173	263	120
5'9"	176	270	123
5'10"	178	278	127
5'11"	181	286	130
6'	183	295	134
6'1"	186	301	137
6'2"	188	310	141
6'3"	191	321	146
6'4"	194	328	149
6'5"	196	339	154
6'6"	199	345	157
6'7"	201	355	162
6'8"	204	363	165
6'9"	206	374	170
6'10"	209	381	173
6'11"	211	392	178

UBMDC0501 Appendix 1: Height / Weight Chart

## Can I be tested specifically for my friend?

It is highly unlikely that two friends will share the same genetic profile. The best hope for any patient lies with the potential donors who are already listed worldwide. However, as long as you are willing to donate to any patient, and you meet the program's eligibility requirements - you can join OneMatch.

## How do I join OneMatch?

### Step 1: Read this pamphlet

Being an informed donor is a vital part of the donation process. It is important that you have read this pamphlet.

### Step 2: Complete Health Screening and Consent to Participate form

Once you have submitted your Health Assessment and consent form to OneMatch, you will receive either a telephone call from a OneMatch representative to discuss your eligibility or receive a mailed buccal swab kit to help you proceed with your enrolment.

### Step 3: Swab your cheek and mail back the kit. You are then fully registered!

Visit our "How To" swab your cheeks video at [www.onematch.ca](http://www.onematch.ca)

## Does joining OneMatch cost me anything?

No. Joining OneMatch is free and you won't be charged for any part of the testing or donation process.

## How do I donate stem cells?

### Method One: Stimulated peripheral blood stem cell donation

One way to donate stem cells is through your circulating blood (also called peripheral blood). To increase the number of stem cells in your blood, you will receive injections of a drug called granulocyte colony stimulating factor (G-CSF) every day for four to five days. The stem cells are then collected using a procedure called apheresis where your blood is drawn through a needle. The stem cells are then separated from the rest of your blood, and the remaining blood is returned back into your body through another needle. This is a non-surgical procedure.

The apheresis procedure described above is commonly used in a variety of situations - for example, plasma donors may undergo apheresis up to 52 times a year. The long-term side effects (more than ten years) of the drug used to stimulate the production of stem cells are unknown at this time. Possible short-term side effects include mild to moderate bone pain, muscle pain, headaches, flu-like symptoms, nausea and vomiting, and redness or pain at the injection site.

### Method Two: Bone Marrow stem cell donation

Bone marrow stem cell donation is a surgical procedure performed under anesthesia. The collection physician will use special, hollow needles to withdraw liquid marrow from the back of your pelvic bones. Normally about a litre of fluid is taken. The procedure usually lasts from 45-90 minutes. The collection includes blood along with the stem cells from your bone marrow. Total volume ranges from under 0.5 litres to as much as 1.5 litres, depending on your size and the size of the recipient. Both blood and stem cells from your bone marrow are replenished within six weeks.

## What are the risks involved in donating stem cells?

### Method One: Stimulated peripheral blood stem cell donation

The apheresis procedure is commonly used in a variety of situations, including with regular plasma and platelet donors. The risks of this procedure are extremely minimal. During the procedure you may feel cold, and blankets are provided to ensure your comfort.

Since the collection of stem cells using this method is relatively new, it is unknown what the long-term side effects (more than ten years) of the drug used to stimulate the production of stem cells are. That said, all of the known risks will be explained to you by one of our nurses, as well as the physician overseeing the collection of your stem cells. It's important to keep a list of any questions you may have, and ensure you're comfortable with the answers as you meet with the various health care professionals.

### Method Two: Bone Marrow stem cell donation

Experience has shown that bone marrow donation is a safe procedure. There are some risks associated with anesthesia, and these vary with the type of anesthesia. Infection at the site of the bone marrow collection is very rare and can be treated with antibiotics. Nerve, bone or other tissue damage is also very rare and may require additional medical treatment. All of these risks will be explained during your meeting with the physician collecting the bone marrow. We encourage you to make a list of questions before your meeting, and to get all the answers you need to feel completely comfortable in proceeding.

## What are the short-term side effects?

If you're donating peripheral blood stem cells, the possible short-term side effects from the drug used to stimulate the production of stem cells include mild to moderate bone pain, muscle pain, headaches, flu-like symptoms, nausea and vomiting, and redness or pain at the injection site. These symptoms will normally subside 24 to 48 hours after making your donation.