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# Bone Marrow Donation

## Donating bone marrow

Your body needs healthy bone marrow to work properly. Bone marrow is the spongy tissue inside the bones. It contains stem cells which make red and white blood cells, and platelets. These carry oxygen throughout the body, help fight infection and help blood clot. Your donated bone marrow can help people with lymphomas, leukemia, anemias, sickle cell disease, and many other disorders.

Donating bone marrow can be a life-saving and worthwhile experience. For a bone marrow transplant, the doctor takes healthy bone marrow from a donor and gives it to a recipient where it can begin to grow and make healthy blood cells.

Before a donation, you will have a physical exam and tests to find your tissue type to see if your tissue matches the recipient's and if there are any other possible problems. You may also take medicines to help boost stem cell production.

Generally, the cost to donate bone marrow is covered by the recipient's insurance. However, there may be other costs related before you are chosen as a donor.

## Why the procedure is done

You may donate bone marrow to help an ill relative or someone you know. Or, you may join a donor registry to donate to anyone who needs bone marrow and with whom you match. In this case, you will be told if you are the chosen donor for a patient based on your tissue type, age, gender, blood type, and BMI. After that, more testing may be done before you may donate.

## How the procedure is done

There are 2 ways to gather stem cells from bone marrow:

- **Apheresis.** For several days before the donation, you will be given a medicine that helps your body make more blood stem cells. During the donation, a needle is used to draw blood. The blood is then put through a machine to extract the stem cells. The remaining blood is returned to your body. You may need to have this repeated for a few days to collect enough stem cells.
- **Bone marrow aspiration.** This is a surgical procedure. Needles are used to directly withdraw bone marrow from a bone, usually your hipbone. You will receive anesthesia so you don't feel pain during the procedure.

You may donate stem cells to a family member or join [bethematch.org](https://bethematch.org) or [giftoflife.org](https://giftoflife.org), or another donor registry, to donate to a person in need with whom you match. Parents may choose to have blood collected from the umbilical cord after a baby is born for use if needed later in life. In some cases, a person can be their own donor. That means their own bone marrow is removed and given back to them later, such as after high dose chemotherapy or radiation. The process is similar to donating bone marrow to another person.

## Risks of donating bone marrow

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While no medical procedure is totally risk free, most people do well and recover fully in a few weeks. A few people may have complications from anesthesia or damage to the area where the marrow was removed. The most common side effects of bone marrow donation include:

- Bone and muscle pain
- Fatigue
- Headache
- Bruising

Full recovery can take 1 to 3 weeks. Ask your healthcare provider what risks and side effects you may experience.

## **To learn more**

- [National Marrow Donor Program at bethematch.org/](https://bethematch.org/)