

# THE BASICS OF BLOOD OR MARROW TRANSPLANT

If you or a loved one has a blood cancer such as leukemia or lymphoma, or an immune system or genetic disease, a blood or marrow transplant may be a treatment option for you.

## WHAT IS BONE MARROW?

Bone marrow is the soft tissue inside your bones that makes blood-forming cells. Blood-forming cells are immature cells (also called blood stem cells) that grow into red blood cells, white blood cells or platelets. When they are mature, the cells and platelets leave the marrow and enter the bloodstream.

- **White blood cells** help fight infections.
- **Red blood cells** carry oxygen throughout the body.
- **Platelets** help control bleeding.

## WHAT IS A BLOOD OR MARROW TRANSPLANT?

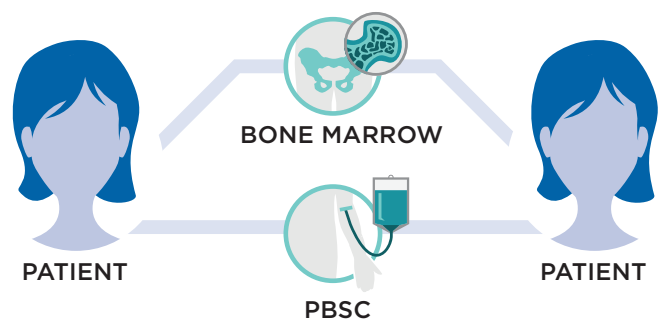
A blood or marrow transplant replaces unhealthy blood-forming cells with healthy ones. Before your transplant, you get chemotherapy with or without radiation to destroy the diseased cells and marrow.

Then, the healthy cells are given to you. A blood or marrow transplant is not surgery. The new cells go into your bloodstream through an intravenous (IV) catheter, or tube. It's just like getting blood or medicine through an IV. From there, the cells find their way into your marrow. There, they grow and start to make healthy red blood cells, white blood cells and platelets.

There are 2 main types of transplant:

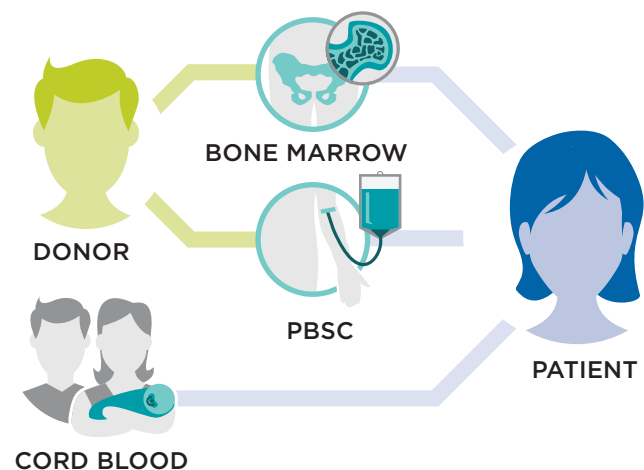
### 1. Autologous Transplant

An autologous transplant uses your own blood-forming cells. The cells are collected from your bloodstream (peripheral blood stem cells or PBSC) or bone marrow and safely stored until they're used.



### 2. Allogeneic Transplant

An allogeneic transplant uses blood-forming cells donated by someone else. This can be a family member or a person unrelated to you. If cord blood is used, this is most often from an unrelated donor, but these cells can sometimes come from a related donor.



Many different words are used to describe transplant. You might hear:

- Marrow or cord blood transplant
- Stem cell transplant
- BMT (blood and marrow transplant, or bone marrow transplant)
- HCT (hematopoietic cell transplant)

## WHERE DO THE CELLS COME FROM?

There are 3 sources of blood-forming cells used in transplants. They are:

- Bone marrow: Spongy tissue inside of bones
- Peripheral blood stem cells (PBSC): Blood-forming cells from the circulating blood
- Cord blood: The blood collected from the umbilical cord and placenta after a baby is born

## WHICH TYPE OF TRANSPLANT IS BEST FOR ME?

Your transplant doctor will recommend which type of transplant—autologous or allogeneic—and which source of cells is best for you. This decision is based on many factors including:

- What disease you have and its stage
- Your overall health

## Questions to ask your doctor:

- What type of transplant and what source of cells do you recommend?
- What are the risks and benefits of transplant for me?

If you have an allogeneic transplant, you will not have to find your own donor. Your doctor will test family members to try to find a matching donor first. If a matched donor is not found in your family, your doctor can search the Be The Match Registry®.

## WHEN IS THE BEST TIME TO HAVE A TRANSPLANT?

It takes time to plan for a transplant, so your doctor may start the process early—even if you are still considering other treatments.

Doctors follow guidelines to recommend the best time for transplant. In general, transplants are most successful if:

- You are in the early stages of disease
- You are in remission (no signs of disease), or there is very little disease in your body
- Your disease has gotten better after treatment
- You are in good overall health

Every patient's situation is unique, so it's important to talk about all your options with your doctor. Ask questions to learn what to expect from your treatment. Make sure you're comfortable with your treatment plan.

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Every individual's medical situation, transplant experience and recovery is unique. You should always consult with your own transplant team or family doctor regarding your situation. This information is not intended to replace, and should not replace, a doctor's medical judgment or advice.