

THE AUTOLOGOUS TRANSPLANT PROCESS

As you learn about the autologous transplant process, remember no two patients will follow the exact same path. Your path will depend on many factors including your overall health, and your disease status. Your transplant team will be there the whole time to guide and support you.

AUTOLOGOUS TRANSPLANT

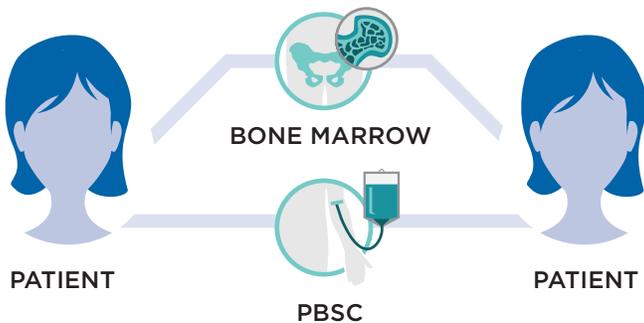
An autologous transplant is a type of transplant in which your own blood-forming cells are collected, frozen and stored. Then they're given back to you after intensive chemotherapy or radiation. Your doctor decides the best time to collect these cells from you. After they are collected, the cells can be frozen, for months or years, until you need them for your transplant.

HOW ARE MY CELLS COLLECTED?

Your doctor may collect blood-forming cells from the circulating blood (peripheral blood stem cells) or marrow. Most patients use PBSC for an autologous transplant. But your doctor will decide which is best for you.

- **PBSC collection:** Blood-forming cells are collected from the bloodstream. This process is called apheresis. Before apheresis you receive shots to increase the number of blood-forming cells in your bloodstream. During apheresis, a needle is put in each of your arms. Blood is removed from a vein in one arm, passed through a machine, and put back into your vein in the other arm. The machine takes out the blood-forming cells that will be used for your transplant.

- **Marrow collection:** Blood-forming cells are collected from the pelvic, or hip, bone through surgery. You receive anesthesia so you are comfortable during the process. A doctor uses a special needle to remove the blood-forming cells from your bone marrow.



WHAT IS THE TREATMENT BEFORE TRANSPLANT?

In the weeks before your transplant, your doctor will check your overall health and disease status to make sure it's the best time for you to receive a transplant.

Tests before transplant

You'll have a physical checkup before you start the transplant process. This is to make sure your body is healthy enough to have a transplant. Physical checkups and tests may vary from hospital to hospital. Typically, the tests include:

- Heart tests
- Blood tests
- Pulmonary (lung) function tests
- Bone marrow biopsy — This is where a needle is put into your hip bone to take out a small sample of bone marrow. A doctor studies the marrow under a microscope.

Ask your doctor about any tests you don't understand and make sure you are comfortable with your treatment plan.

Getting a central line

During the transplant process you'll often give blood samples, get IV medicines and get blood transfusions. You will have a central venous catheter, or central line, put in before your transplant to ease this process. The central line will lower the number of needle sticks you need and allow you to get some medicines through your central line into your vein.

Preparative or conditioning regimen

Before you get your cells, your doctors need to prepare your body to receive them. This process is called the preparative regimen, or conditioning regimen. Your preparative regimen will use chemotherapy. You may also receive radiation therapy. The number of days the preparative regimen lasts varies based on the regimen you receive.

Doses of chemotherapy and radiation therapy in the preparative regimen can be higher than the amount used to treat the same disease if you were not getting a transplant. Although these higher doses may cause more severe side effects, they also destroy more diseased cells.

TRANSPLANT DAY: "DAY ZERO"

The day you receive your cells is often called "Day Zero." It usually comes 1 or 2 days after you finish your preparative regimen. The transplant isn't surgery. Instead, your cells are given to you through your central line. The cells arrive in blood bags, similar to the ones used for blood transfusions. You will be in your hospital or clinic room and awake during the transplant process. The cells are infused (put) into your body, most often through your central line.

You may have mixed feelings about transplant day. You may feel nervous. It may be a time of celebration. These feelings are normal. Some patients and family members like to do something special on transplant day to honor the milestone, like have a small gathering, play music, or say a prayer.



**Every patient's experience is unique. Your path may be different.*

Some hospitals have programs for “outpatient” transplant. As long as the patient is well enough (for example, there are no signs of infection, like a fever) the patient will not have to stay overnight in the hospital. Patients having an outpatient transplant will still need to make frequent, often daily, visits to the outpatient clinic.

AFTER YOUR TRANSPLANT

Recovering from a transplant takes time. After your transplant, you will be at a very high risk of infection. You will stay in or near the hospital during early recovery. During this time, your doctor will watch for signs of engraftment.

Engraftment

The cells “know” where they belong in the body. They move through your bloodstream to settle into your bone marrow. There, the cells will begin to grow and make new red blood cells, white blood cells and platelets. When this happens, it’s called engraftment.

Engraftment is an important medical milestone after your transplant. It tells your doctors that the cells are working properly.

In the first months after transplant, focus on recovery by:

- Eating healthy foods
- Washing your hands often
- Taking your medicines
- Getting regular care from your doctor
- Doing everything your doctor tells you

Even after engraftment, you will still be weaker than normal for some time. Your transplant team will watch you closely for infections and other problems.

You will probably be able to leave the hospital when:

- Your cells have engrafted, and
- You have no sign of infection, and
- You’re able to take all your medicines by mouth

This usually happens some time during the first 100 days, but may take longer. However, you will likely still need to visit the hospital or clinic regularly.

Long-term recovery

When you leave the hospital, you will need to:

- Follow guidelines to reduce the risk of serious infections and other complications.
- Take all of your medicines exactly as your doctors tell you.
- Follow your transplant team’s advice for foods to eat and safe food handling. This will help you get your strength back and reduce your infection risk.
- Call your doctor right away if you have any symptoms or signs of infection, like a fever.

Everyone will have a different experience after transplant. It's common for patients to re-enter the hospital to be treated for complications after transplant. In your first weeks or months after you leave the hospital, you will see your transplant team often, even daily. If you travel to a transplant center far from home, expect to stay near your transplant center for treatment for several months.

Each patient's recovery is different. It is possible to have a short recovery, but for some patients, recovery can last for years.

Most recent medical review completed March 2015



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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.