

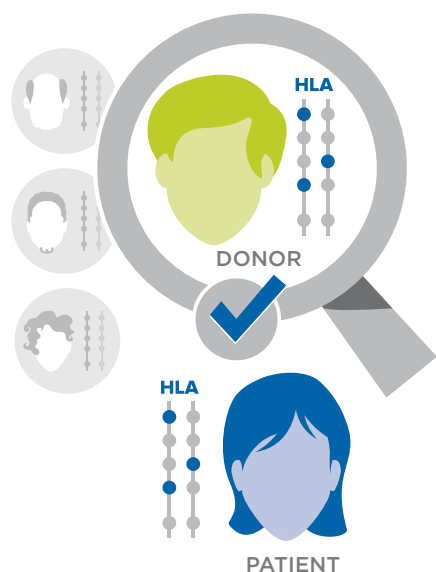
THE ALLOGENEIC TRANSPLANT PROCESS

If you are considering having an allogeneic transplant, remember no two patients will follow the exact same path. Your path will depend on many factors including the type of blood or marrow transplant, your overall health and your disease status. Your transplant team will be there the whole time to guide and support you.

ALLOGENEIC TRANSPLANT

If you have an allogeneic transplant, you will get healthy blood-forming cells donated by someone else. The first step in the allogeneic, or allo, process is finding a donor who is the best match for you. Your doctor will use human leukocyte antigen (HLA) typing when choosing your donor or cord blood unit. HLA is a protein — or marker — found on most cells in your body.

MATCHING PATIENTS WITH DONORS



The best transplant outcomes (results) happen when a patient's HLA closely matches the donor's HLA. A close HLA match also helps lower the risk for complications after transplant. Matching HLA markers is much more complex than matching blood types.

Typically, your doctor will first look for a matching donor in your family — usually a brother or sister. That's because HLA markers are inherited. Each brother and sister has a 25% (1 out of 4) chance of matching you, if you have the same mother and father.

About 70% of patients (7 out of 10) who need a transplant don't have a close match in their family. If you don't have a match in your family, your doctor will work with Be The Match® to search the Be The Match Registry® to find you a matched unrelated donor or cord blood unit.

Your doctor should contact Be The Match and start a donor search as soon as possible. We recommend this step even if your doctor is not planning a transplant for you right away.



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

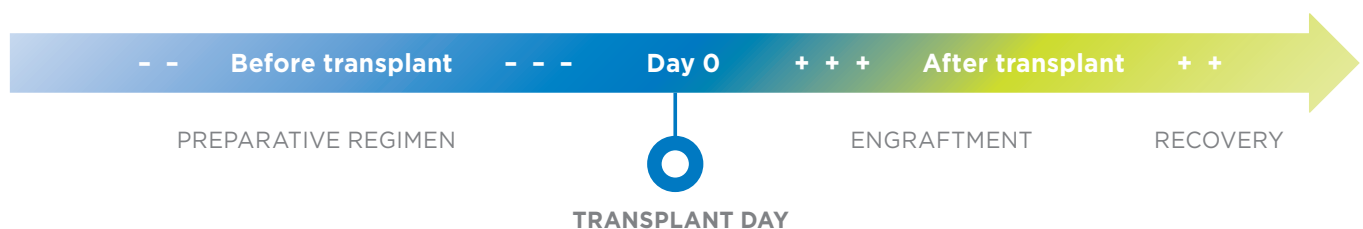
Before you get your cells, your doctors need to prepare your body to receive them. This process is called the preparative regimen, or conditioning regimen. Your preparative regimen will use chemotherapy. You may also receive radiation therapy.

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.

Your doctor will choose the type of preparative regimen for you based on your disease and overall health. The number of days the preparative regimen lasts varies based on the regimen you receive.

Types of allogeneic preparative regimens

1. Standard-intensity regimen — Uses high doses of chemotherapy, with or without radiation.
2. Reduced-intensity regimen — Uses a lower dose of chemotherapy, with or without radiation.



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

TRANSPLANT DAY: “DAY ZERO”

The day you receive your new 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 healthy cells are infused (put) into your body, most often through your central line.

The cells arrive in blood bags, similar to the ones used for blood transfusions. You will be in your hospital room and awake during the transplant process.

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.

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 donated 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.

Graft-versus-host disease (GVHD)

Your doctor will prescribe medicine to help prevent graft-versus-host disease (GVHD). GVHD is a common complication of an allogeneic transplant. GVHD can affect many different parts of the body including the skin, eyes, mouth, stomach and intestines.

GVHD occurs because of differences between the cells of your body and the donated cells. Your new immune system from the donor might see your body’s cells as different and attack them.

There are 2 types of GVHD:

- Acute GVHD: Develops in the first 100 days or so after transplant but can occur later. This primarily affects the skin, stomach, intestines and liver
- Chronic GVHD: Usually develops 3-6 months after transplant, but signs can appear earlier or later. If you have had or currently have acute GVHD, you are more likely to have chronic GVHD

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 food 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



AT EVERY STEP, WE'RE **HERE TO HELP**

As you journey through transplant, you're not alone. Be The Match® is ready to help.

We offer many free programs and resources to support you, your caregivers and family members before, during and after transplant. Connect with us in the way that works best for you.

LEARN: BeTheMatch.org/patient EMAIL: patientinfo@nmdp.org

ORDER: BeTheMatch.org/request CALL: **1 (888) 999-6743**

Our programs and resources offer support in 11 languages, including Spanish bilingual staff, and translation is available in more than 100 languages.

VISIT: BeTheMatch.org/translations



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 at least the first 100 days.

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



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.