

Matching Patients and Donors for Blood or Marrow Transplant (BMT)

Learning more about how doctors find the best donors for patients can help you make informed medical decisions.

THIS FACT SHEET TELLS YOU:

- What HLA matching is
- How doctors find donors
- How the donated cells get to you
- Questions to ask your doctor

WHAT IS HLA MATCHING?

HLA matching is used to match patients and donors for blood and marrow transplants. HLA (human leukocyte antigens) are proteins—*or* markers—on most cells in your body. Your immune system uses these markers to recognize which cells belong in your body and which don't.

HLA matching is much more complicated than blood typing. To have HLA matching done:

- You and any potential donors will have blood drawn
- The blood is tested in a laboratory to determine HLA type
- Your HLA is compared to that of any potential donors to see if there is a match

HOW DOCTORS FIND DONORS

Finding a donor is **not** your responsibility. Your doctor will find the best donor for you within your family or on the Be The Match Registry®.

1. Look in your family

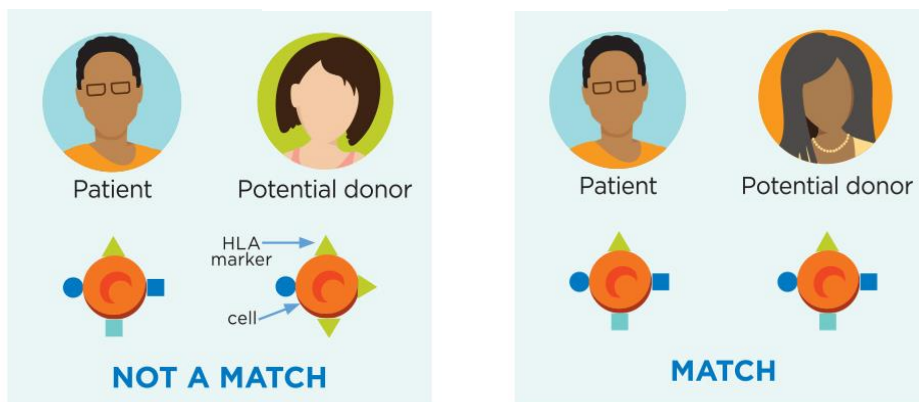
HLA identical transplant

If you have a brother or sister who is willing and able to be your donor, your transplant doctor will test each of them to see if they match you. Each brother and sister who has the same parents as you has a 25% chance (1 in 4) of matching you. Aunts, uncles and cousins are rarely a match so it's unlikely they will be tested.

HLA haploidentical (half-matched) transplant

This is a type of transplant where the donor matches exactly half of your HLA markers. Biological parents and their children are always a half-match for each other. Brothers and sisters have a 50% (1 out of 2) chance of being a half-match for each other.

HLA Matching



This is a simplified picture of a very complex process.

Even though haploidentical transplant is starting to be used more often, it's a newer type of transplant. Not all hospitals offer it. Also, doctors don't know yet how the long-term results with haploidentical donors compare to fully matched donors.

2. Search the Be The Match Registry

About 70% (7 out of 10) of patients who need a transplant do not have a match in their family. If you don't have a match in your family, your doctor will search the registry to find an unrelated donor or cord blood unit(s) for you.

When doctors search our registry, they search more than 30 million potential adult donors and more than 742,000 cord blood units on U.S. and global registries. Thousands of new donors are being added to the registry each month.

Doctors searching the registry receive daily updates on the progress of searches. Your doctors are notified if a new donor or cord blood unit is added that matches you.

IT TAKES TIME TO FIND A DONOR

It can take as little as a few weeks and sometimes many months to find the right match for you. Typically, it takes a few months from the beginning of the search process to the day of transplant. When umbilical cord blood is used, it may take just a few weeks because the cord blood units have already been collected and stored.



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

Be The Match has a team dedicated to providing information and support to you before, during, and after transplant. You can contact our Patient Support Center to ask questions you may have about transplant, request professional or peer support, or receive free patient education materials.

CALL: **1 (888) 999-6743** | EMAIL: patientinfo@nmdp.org | WEB: BeTheMatch.org/one-on-one

GETTING THE DONATED CELLS

Typically, donated cells arrive in 1 or 2 bags, similar to the ones used for blood transfusions.

An unrelated donor

A trained courier delivers the cells to your transplant center. They may come from somewhere in the U.S. or a different country. Experienced staff at Be The Match coordinate the delivery and make sure the cells get to you exactly when you need them.

A family member

Your donor may donate at the same hospital where you are getting your transplant. If your family member doesn't live nearby, a courier will deliver the cells.

A cord blood unit

The cells are sent from a cord blood bank to your transplant center.

QUESTIONS TO ASK YOUR DOCTOR

- Which family members will you test as possible donors?
- If my donor is a family member, what will they have to do?
- If I don't have a matched donor in my family, will you look for an adult volunteer donor or a cord blood unit?
- How frequently will I get updates about my donor search? Who should I call if I have questions about my donor search?
- Is a haploidentical, or half-matched, transplant an option for me?



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.