

HAPLOIDENTICAL TRANSPLANT

Learning more about your treatment options can help you make informed decisions about your health care. For some patients, a blood or marrow transplant from a haploidentical donor may be an option.

READ ON TO **LEARN ABOUT:**

- Haploidentical transplant
- The donation process
- The risks and benefits of a haploidentical transplant
- Questions to ask your doctor

WHAT IS A **HAPLOIDENTICAL TRANSPLANT?**

A haploidentical transplant is a type of allogeneic transplant. An allogeneic transplant uses healthy blood-forming cells from a donor to replace unhealthy ones. Doctors try to find a donor whose cells are a very close match with your cells. To do this, they look at human leukocyte antigen markers, or HLA markers. HLAs are protein markers found on most cells in the body. When patients and donors have closely matched HLA they generally have better outcomes (results) and fewer problems than those who don't.

A haploidentical transplant is an allogeneic transplant where the donor matches exactly half of your HLA. A haploidentical, or half-matched, donor may be an option if your doctor can't find a closely matched donor or cord blood unit. Parents are always a half-match for their children and vice versa. Siblings (brothers or sisters) have a 50% (1 out of 2) chance of being a half-match for each other. It's very unlikely that other family members (like cousins, aunts or uncles) would be a half-match.

Because haploidentical transplant is newer, not all transplant centers have experience in this area. That means not all hospitals offer this option.

Key points:

- A haploidentical transplant is a type of allogeneic transplant
- Haploidentical means the donor is half-matched to the patient, and is related to the patient
- A haploidentical donor may be considered if a patient doesn't have a fully matched related or unrelated donor
- Not all transplant centers perform, or do, haploidentical transplants



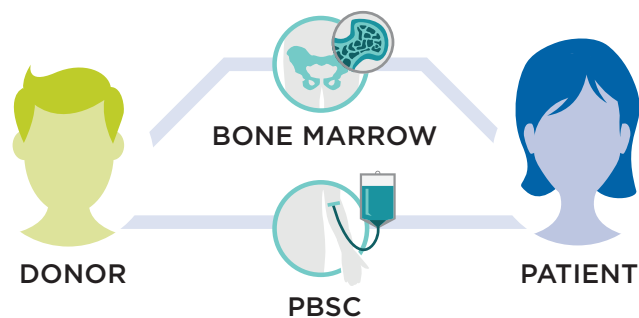
WHAT IS THE DONATION PROCESS?

The donation process is the same for fully matched donors and haploidentical donors. Donors may donate blood-forming cells from the peripheral blood (PBSC) or marrow. Doctors will decide which donation method is used based on which is best for the transplant recipient.

- **PBSC donation:** Blood-forming cells are collected from the bloodstream. This process is called apheresis. Before apheresis, the donor receives shots to increase the number of blood-forming cells in the bloodstream. During apheresis, a needle is placed into each of the donor's arms. Blood is removed from a vein in one arm, passed through a machine, and put back into the donor through the vein in the other arm. The machine takes out the blood-forming cells that will be donated to the patient.
- **Marrow donation:** Blood-forming cells are collected from the pelvic, or hip, bone. Marrow donation is a surgical procedure. The donor receives anesthesia so he or she is comfortable during the procedure. A doctor uses a special needle to remove the blood-forming cells from the bone marrow.

Key points:

- A haploidentical donor could be asked to donate either PBSC or marrow
- The transplant doctor chooses the type of donation based on which is best for the transplant recipient



WHAT ARE THE RISKS AND BENEFITS OF A HAPLOIDENTICAL TRANSPLANT?

Even though a haploidentical transplant is starting to be used more often, it is a newer type of transplant. Doctors don't know yet how the long-term outcomes (results) with haploidentical donors compare with the outcomes with fully or very closely matched donors. Because doctors are still studying this type of transplant, you may have the option of joining a clinical trial (research study).

Before deciding to have a haploidentical transplant, ask your doctor about the benefits and risks for you. Here are some benefits and risks:

Benefits

- Most patients will have a readily available donor
- Related donors, including haploidentical donors, are generally available to donate sooner than unrelated donors
- If more blood-forming cells are needed, haploidentical donors are generally more available to donate a second or third time

Risks

- Doctors know less about transplant outcomes (such as long-term survival) when a haploidentical donor is used
- More time is needed before the donor cells start to grow (engraft) in the patient, which can increase the risk for infections after transplant
- Generally patients have higher risk of some serious complications, like graft rejection, graft-versus-host disease (GVHD), and relapse

Key points:

- Most patients will have a readily available haploidentical donor
- Transplants from a haploidentical donor may have higher risk of serious complications
- Long-term survival information is not yet known

QUESTIONS TO ASK

If you have the option of a haploidentical transplant, here are some questions to consider asking your transplant doctor:

- Why is a haploidentical transplant being considered for my disease?
- Do I have other donors who would match me? If so, will you explain the benefit of a haploidentical donor over the other options?
- What are the risks and benefits of transplant from a haploidentical donor compared to using cord blood? Compared to using an unrelated donor?
- How do the doctors at this center choose between a haploidentical donor and a matched unrelated donor?
- How much experience does this transplant center have doing haploidentical transplants?
- What are the average outcomes for patients at this center who have had a transplant from a haploidentical donor?

- Is there a haploidentical transplant clinical trial that I could join?
- Which family member would be my haploidentical donor? What does that person have to do?

You may also want to ask your insurance company questions about your coverage for transplant with a haploidentical donor. Here are some questions you could ask:

- Does my insurance policy pay for an allogeneic transplant from a haploidentical donor?
- Does my insurance policy pay for my care in a haploidentical transplant clinical trial?
- Does my insurance policy pay for my family member's PBSC or marrow donation?

If you have questions about whether haploidentical transplant is right for you, talk with your transplant doctor. Every person's situation is different, and your transplant doctor can help you make choices about your treatment.



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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.