

Transplant and Myelodysplastic Syndromes (MDS)

Learning more about your treatment options can help you make informed medical decisions.

This fact sheet tells you:

- What MDS is
- What the transplant steps are
- When to see a transplant doctor
- Questions to ask your doctor

What is MDS?

MDS is a group of diseases that affect the blood and bone marrow. Bone marrow is the soft, spongy tissue inside your bones.

In MDS, the blood-forming cells in the marrow slow down, or even stop, making blood cells. Most people with MDS will have anemia (low number of red blood cells) and may need blood transfusions. Some people also have low numbers of white blood cells and platelets.

Sometimes MDS can develop into a fast-growing, severe blood cancer called acute myeloid leukemia (AML).

What is a blood or marrow transplant (BMT)?

BMT, also called bone marrow transplant, replaces unhealthy blood-forming cells with healthy ones. With healthy blood-forming cells, the body is able to break down fat-based substances normally. A transplant will keep the brain, nervous system, bones and other tissues from more damage, but will not fix any damage that has already happened.

Allogeneic transplant is the most common type of transplant for MDS. It uses healthy blood-forming cells donated by someone else to replace the unhealthy blood-forming cells. The healthy cells can come from a family member, an unrelated donor, or umbilical cord blood unit.

Allogeneic transplant steps

1. First, your doctor searches for your donor. This can take weeks to months.
2. Next, you will get chemotherapy (chemo), and possibly radiation, to kill the unhealthy cells. This can take up to 2 weeks.
3. On transplant day, the donated cells are given to you through an intravenous (IV) infusion. The new cells travel to the inside of their bones.
4. After a few weeks, the donated cells begin to make healthy blood cells.
5. Then, you will need many months to recover. You will spend some of this time in or near the hospital.

Doctors, nurses and social workers will closely care for you during the entire process to prevent and treat any side effects or complications.

When to see a transplant doctor

You should see a transplant doctor if:

- The MDS has a high risk of relapse
- The MDS was caused by another treatment, such as chemo for another cancer
- You have very low numbers of blood cells despite treatment
- You need frequent blood transfusions

Your first appointment with a transplant doctor

At your first appointment, the doctor will:

- Review your medical history
- Talk with you about your treatment options and their risks and benefits
- Recommend the best time for BMT, if needed
- Start a donor search even if you don't need a transplant right away. This can help you get a transplant faster if it's needed later.

Learn about your risk for relapse

To see how likely it is that the MDS will come back, doctors do cytogenetic and molecular testing. To do this testing, doctors look closely at your blood and your bone marrow. This means they look at the chromosomes and genes in the leukemia cells. Chromosomes and genes carry instructions that tell your body how to make everything it needs to work properly.

Certain changes in the MDS chromosomes and genes predict a lower risk of relapse. Others predict a higher risk.

Ask your doctor for a copy of your test results and to explain what they mean. If your disease has a high risk of relapse and you're healthy enough for transplant, it's important to see a transplant doctor right away.

Questions to ask your doctor

What are the chances of a cure or long-term remission if I get a transplant? If I don't get one?

Does the type of MDS I have make a difference on how well transplant might work for me?

Does my current health or age affect how well transplant might work for me?

What do my cytogenetic and molecular markers mean for my treatment?

What are the possible side effects of transplant? How can they be reduced?

How might my quality of life change over time, with or without transplant?

Resources for you

- Talk to someone who can help
 - Call: 1 (888) 999-6743
 - Email: patientinfo@nmdp.org
- Find a clinical trial for MDS
 - Call: 1 (888) 814-8610
 - Email: clinicaltrials@jcctp.org
- Order free resources
 - Visit: BeTheMatch.org/request



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.

