Transplant and Chronic Lymphocytic Leukemia (CLL)

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

This fact sheet tells you:
- What CLL is
- What the transplant steps are
- When to see a transplant doctor
- Questions to ask your doctor

What is CLL?
CLL is a blood cancer that starts in your bone marrow (soft, spongy tissue inside your bones). In CLL, your bone marrow makes too many unhealthy white blood cells. They prevent your marrow from making healthy red blood cells, white blood cells and platelets. With fewer healthy blood cells, your body can't fight infections or stop bleeding.

What is a blood or marrow transplant (BMT)?
BMT, also called bone marrow transplant, replaces your unhealthy blood-forming cells with healthy ones. BMT is not surgery. For some people, BMT cures the CLL.

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

**Allogeneic transplant steps**
1. First, your doctor searches for your donor. This can take weeks to months.
2. Next, you will get chemotherapy, 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 your 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 CLL:
- Has a high risk of coming back (relapse)
- Comes back quickly after initial chemotherapy
- Doesn't get better after initial chemotherapy

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 discuss their risks and benefits
• Make recommendations for you and your other doctors
• 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
CLL often grows slowly, so doctors will usually treat the disease with chemotherapy first. During this time, doctors will also do cytogenetic and molecular testing. This tells doctors how likely it is that the CLL will come back.

To do this testing, doctors look closely at your blood and bone marrow. 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 CLL 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. Remember, 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.

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

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 CLL 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?