

What is Autologous Stem Cell Transplant (ASCT)?

An Autologous Stem Cell Transplant (ASCT) is a medical procedure where your own stem cells are collected, stored, and then given back to you after you receive high-dose chemotherapy. This treatment is often used for certain types of cancer, like multiple myeloma or lymphoma. The goal is to let your body recover after strong cancer treatment by using your own healthy cells to rebuild your bone marrow.

Indications for the procedure

ASCT may be recommended if you have:

- Multiple myeloma
- Hodgkin or non-Hodgkin lymphoma
- Certain types of leukemia
- Some solid tumors (less commonly)
- A need for high-dose chemotherapy that would damage bone marrow

How ASCT is done

1. Stem Cell Collection: Your stem cells are collected from your blood using a special machine (similar to donating blood).
2. High-Dose Chemotherapy: You receive powerful chemotherapy to destroy cancer cells.
3. Stem Cell Infusion: After chemo, your own stem cells are returned to your body through an IV.
4. Recovery: Your stem cells help rebuild your blood and immune system. This process takes a few weeks, and you may need to stay in the hospital during recovery.

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Common alternatives to ASCT

- Chemotherapy alone
- Radiation therapy
- Allogeneic stem cell transplant (using stem cells from a donor)
- Targeted therapy or immunotherapy depending on your cancer type

Risks of ASCT

Like all medical procedures, ASCT has risks. These may include:

- Infections (due to low immunity for a period of time)
- Bleeding or anemia
- Tiredness and weakness
- Nausea or vomiting
- Risk that the cancer returns
- Rarely, damage to organs like the liver, lungs, or heart

ASCT for Multiple Myeloma

ASCT is a standard and effective treatment for people with multiple myeloma, a cancer of the bone marrow. It's not a cure, but it can help control the disease for a long time. Many people with myeloma receive ASCT after initial chemotherapy to help put the disease into remission.

Some key points for myeloma patients:

- Most people with myeloma receive one transplant, but some may have two (called tandem transplants).
- ASCT can improve quality of life and extend survival.
- Maintenance therapy with medications may be used after transplant to keep the myeloma from returning.



Frequently Asked Questions

Q: Will I feel pain during the transplant?

A: No, the infusion is painless. It's similar to getting a blood transfusion.

Q: How long will recovery take?

A: It varies, but it usually takes a few weeks to months to fully recover.

Q: Will I lose my hair?

A: Yes, high-dose chemotherapy often causes hair loss, but it usually grows back.

Q: Can I go back to work right away?

A: Most people need time to rest and regain strength before returning to work.

Q: Is the transplant a cure?

A: It can lead to long periods of remission, but results depend on your specific cancer and overall health.