Multiple Myeloma: Autologous Stem Cell Transplantation

What is an autologous stem cell transplant (ASCT)?

- ASCT uses the patient’s own stem cells to restore the blood cells that have been destroyed during chemotherapy treatment
- ASCT is the standard of care for most newly diagnosed patients with multiple myeloma
- ASCT is not a cure. Patients who receive ASCT may remain disease-free for a period of time, but their myeloma will most likely come back
- The doctor and patient discuss and decide if the patient is medically eligible for ASCT and if it is the right choice for the patient

What are the steps involved in ASCT?

1. Patient undergoes a period of myeloma treatment to decrease the number of myeloma cells in his or her body
2. In a procedure that is similar to donating blood, healthy blood-forming cells (also called stem cells) are collected from the patient and stored in a freezer
3. Patient undergoes treatment with strong chemotherapy (usually melphalan) that will kill most of the remaining myeloma cells—but that also kills healthy stem cells
4. Patient’s frozen stem cells are thawed and infused back into the patient
5. Stem cells travel to the bone marrow and begin to grow and form the healthy blood cells that the patient needs

How long does ASCT take and where is it done?

The ASCT process includes chemotherapy treatment, healthy cell infusion, and initial recovery; it usually takes about 3 weeks.

During these 3 weeks, patients may either stay in the hospital or visit an outpatient clinic every day; this decision is made by the patient and caregiver in collaboration with the care team.
What are the possible side effects of ASCT?

- Fatigue
- Nausea, vomiting, or diarrhea
- Mucositis (pain and sores in the mouth)
- Low blood counts
- Increased chance of infection

What is recovery from ASCT like?

### What you may experience during recovery:

| Fatigue, which may last from 1 to 3 months | Lower blood cell counts, which increases the risk of infection | Ongoing testing is needed to monitor healthy cells and myeloma cells after ASCT |

### What can you do to help speed your recovery?

<table>
<thead>
<tr>
<th>Rest</th>
<th>Use medication according to your doctor’s directions</th>
<th>Return to your doctor’s office when necessary, for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice good nutrition</td>
<td>Avoid crowds</td>
<td>Blood tests to measure healthy cells</td>
</tr>
<tr>
<td>Exercise</td>
<td>Wear a mask and wash hands frequently</td>
<td>Imaging scans and bone marrow testing to look for any remaining myeloma cells</td>
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</tbody>
</table>

The MMRF Patient Navigation Center is available to provide you with additional guidance and support and to answer your questions.

You can reach the MMRF Patient Navigation Center by phone at **1-888-841-MMRF (6673)**, Monday through Friday from 9:00 AM to 7:00 PM Eastern Time, or on the Web at [themmrf.org/resources/patient-navigator-center](http://themmrf.org/resources/patient-navigator-center)