Stem Cell Transplantation and Cellular Therapy

MD Anderson has one of the largest stem cell transplantation and cellular therapy programs in the world, performing more than 850 transplants and cell therapy infusions annually in adults and children. Our extensive expertise in the treatment of advanced blood cancers is aided by applying highly effective stem cell transplant methodologies using fully or partially matched donors and umbilical cord blood.

In addition, our department offers a full range of services through our cell processing laboratory, including stem cell collection, manufacturing, infusion and treatment of the patient. Together, with the use of cutting-edge cell therapy technologies, dedicated clinics, and on-site facilities, we are able to treat cancers effectively and efficiently.

Where you send your patient first matters.

MD Anderson provides comprehensive, foremost stem cell and cellular therapy services with a holistic, multimodal approach that supports our patients before, during and after their transplant. Our multidisciplinary care allows for quicker recovery and the capability to treat complications.

Our stem cell transplantation and cellular therapy services include:

- A stem cell transplant program with fully or partially matched donors that is recognized by the National Marrow Donor Program as a specialized center for matched unrelated donor and umbilical cord blood transplants
- Haploidentical and cord blood transplant programs, which may shorten time to transplant
- Novel personalized treatments through our adoptive cell therapy platform that has pioneered the use of virus-specific T, CAR T, and CAR NK cells for treating cancer and infection
- A dedicated clinic for monitoring and managing graft versus host disease, a condition that can arise following stem cell transplantation
- Outpatient and early discharge for eligible patients, as well as survivorship care programs
- Clinical staff members who are dedicated to preparing safe and effective stem cells and therapeutic cells through our state-of-the-art Cell Therapy Laboratory, which is located within MD Anderson's complex and performs more than 2,000 collections a year through our apheresis and stem cell collection unit
- Access to our enhanced recovery program, a patient-focused care pathway for transplanting elderly patients over 65 years of age, which utilizes a dedicated clinic to provide comprehensive care throughout the transplant process and help them return to home, life and self more quickly
Cancers, hematologic diseases and autoimmune disorders we treat

- Leukemia, including blastic plasmacytoid dendritic cell neoplasm
- Lymphoma, including HIV-associated lymphoma
- Multiple myeloma and other plasma cell disorders
- Myelodysplastic syndrome
- Myeloproliferative neoplasms
- Testicular cancer
- Aplastic anemia
- Autoimmune diseases, including scleroderma and multiple sclerosis
- Hemoglobinopathies, including sickle cell disease
- Immune deficiency disorders
- Inborn errors of metabolism

Advanced treatment options for patients

- Allogeneic stem cell transplant [related/unrelated; HLA matched, cord blood, haploidentical transplantation; marrow and peripheral blood progenitor cells (PBPC)]
- Autologous stem cell transplant (marrow, PBPC)
- Clinical trials
- Cell therapy, including virus-specific T, CAR T and CAR NK cells
- Immunotherapy
- Molecular profiling
- Targeted therapy
- Vaccines
Why MD Anderson

Cancer cannot wait.

Through our decades of experience in treating a variety of cancers, we have developed a series of comprehensive strategies to guide our best practices of care using a multidisciplinary approach. To learn more about cancer treatment guidelines, visit our Clinical Practice Algorithms page.

When physicians partner, patient’s choice expands.

As part of our commitment to end cancer, MD Anderson is performing translational research that begins and ends with each patient. Through our large clinical trial portfolio and Moon Shot Programs®, we offer a wide variety of treatments, and many of these options are new discoveries only offered here.

We treat patients with acute myeloid and lymphoid leukemias, as well as myelodysplastic syndrome; chronic myeloid and lymphoid leukemias; lymphoma and non-Hodgkin lymphoma; multiple myeloma; germ cell tumors; aplastic anemia; sickle cell anemia and other diseases of the bone marrow.

Our team of stem cell transplant and cellular therapy physicians perform a thorough evaluation and investigate the characteristics of a disease, including genetic profiling. This gives us the ability to recommend a personalized and cutting-edge clinical trial or other protocols that provide optimal disease treatment.

- View our available stem cell clinical trials.
A safer environment
Keeping our patients and workforce safe has always been our top priority. We continue to proactively implement measures to ensure the safety of patients on all our campuses. To learn more about our response to COVID-19, visit our Coronavirus Precautions page.

Oncology care team
For information about our stem cell transplantation and cellular therapy faculty and staff, visit our directory.

Patient referrals
When you refer to MD Anderson, your patients will receive the highest level of care in a safe, compassionate environment. Our stem cell transplant coordinators are dedicated to assisting health care providers with the following:
- Coordinate patient referrals
- Review clinical trials
- Answer general questions

Physician portal
Our secure, HIPAA-compliant portal is available for health care providers to take an active role in managing patient care at MD Anderson. After creating a myMDAnderson for Physicians account, you can:
- Access patient appointment schedules
- Access transcribed patient reports and results
- Receive notifications regarding referral status and results
- Easily update your profile and contact information