Specialized Centers and Programs of Care
Welcome to the Massachusetts General Hospital Cancer Center

At the Massachusetts General Hospital Cancer Center, adults and children facing cancer have access to the best available cancer care, while in the expert, compassionate hands of highly specialized professionals.

For more information on our clinical centers and programs, visit massgeneral.org/cancer/services

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Avon Foundation Comprehensive Breast Evaluation Center

The Avon Foundation Comprehensive Breast Evaluation Center focuses on breast health and breast cancer detection. We are leaders in the screening and diagnosis of breast cancer, offering the most advanced breast imaging, surgical screening and pathology services available.

For more information on this program or to view a list of team members, visit massgeneral.org/avon

We offer comprehensive, expert evaluation for:

- Breast lumps
- Abnormal mammograms
- Nipple discharge
- Women at risk of breast cancer
- Male breast cancer
- Other breast problems

Patients who require breast cancer treatment are cared for by a multidisciplinary team of oncology experts at our Gillette Center for Breast Cancer.

INNOVATIVE APPROACHES

Because of our exclusive focus on breast health, we offer expertise in diagnosing and treating breast disorders, particularly breast cancer, with the latest, most accurate and least invasive techniques available, including:

- The most advanced imaging technologies, such as digital mammography, digital tomosynthesis and breast MRI
- Minimally-invasive surgical diagnostics, like fine needle aspiration, that extract the smallest amount of tissue necessary to make an accurate diagnosis
- Computerized breast cancer risk assessment in collaboration with the certified genetic counselors at the Cancer Center’s Center for Cancer Risk Assessment

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

Many of the specialists in our program are involved in research to improve the diagnosis and treatments for breast cancer. These studies include:

- Investigations to identify more ways to use MRI for women with prior breast cancer
- 3-D imaging of breast tissue using tomosynthesis
- Research to better understand the molecular features of individual breast cancers
- Study of genetic signatures to identify which breast cancers will respond to hormone therapy
- Gene-expression profiling to identify which women are at higher risk of recurrence and may benefit from more aggressive treatment
- Targeted therapies for tumors with genetic mutations identified through genotyping
We provide advanced treatment for:

- Ductal carcinoma in situ
- Invasive breast cancer
- Inflammatory breast cancer
- Recurrent or metastatic breast cancer
- Reconstructive breast surgery
- Male breast cancer

INNOVATIVE APPROACHES

Our approach is to be as minimally invasive as possible, both in diagnosing and in treating breast cancer, and to spare as much breast tissue as we safely can. Among the innovative approaches offered are:

- Genotyping (molecular fingerprinting) for metastatic breast cancer patients to determine if a patient’s tumor has genetic mutations that might be treated with targeted therapies
- Nipple-sparing mastectomy techniques
- Pioneering radiation techniques, including partial breast irradiation completed in one week (instead of six weeks) and hypofractionation of whole breast radiation in four weeks (instead of six weeks)

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

We offer an extensive array of clinical trials, including:

- Breast cancer prevention trials in healthy postmenopausal women
- Ways to minimize lymphedema
- The use of targeted therapeutics, including agents that target specific enzymes
- Genetic studies to determine which breast cancers are more likely to recur
- Drugs to reduce recurrence

For more information on this program or to view a list of team members, visit massgeneral.org/breast
Center for Endocrine Tumors

The Center for Endocrine Tumors is a comprehensive program specializing in the diagnosis and treatment of benign and malignant endocrine tumors. Although many endocrine conditions are benign, our program combines the resources of the Mass General Cancer Center with those of Mass General’s Division of Endocrinology to provide advanced treatment for all patients.

For more information on this program or to view a list of team members, visit massgeneral.org/endocrinetumors

We provide the latest therapies for:

- Adrenal tumors
- Parathyroid tumors
- Thyroid tumors

INNOVATIVE APPROACHES

We use state-of-the-art technology and highly specialized endocrine pathologists for diagnosing endocrine conditions, along with the most advanced surgical techniques and clinical trials to find better therapies for endocrine conditions and cancers. Our endocrine specialists provide:

- Highly specialized expertise in diagnosing and treating endocrine tumors
- The most advanced surgical techniques, such as ultrasound-guided fine needle biopsies, core needle biopsies, vocal cord monitoring, video-assisted procedures and lymph node dissection
- High-volume surgical expertise
- Expertise in molecular diagnostics of endocrine tumors
- Advanced clinical trials to find better therapies for endocrine tumors

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

We are currently conducting clinical trials for patients with advanced endocrine cancers, including:

- Papillary thyroid carcinoma
- Follicular thyroid carcinoma
- Medullary thyroid carcinoma
- Anaplastic thyroid carcinoma
- Adrenocortical carcinoma
- Malignant pheochromocytoma

Our physicians are also involved with numerous clinical trials aimed at discovering targeted therapies for these cancers.
We provide treatment for gastrointestinal cancers, including:

- Colorectal
- Liver and bile duct
- Esophageal
- Pancreatic
- Gallbladder
- Gastrointestinal stromal tumors
- Stomach cancers

INNOVATIVE APPROACHES

We offer the latest advances in therapy, many of which were pioneered here, including:

- Embolization, a technique which delivers chemotherapy or radiation directly to a tumor
- Laser treatment to pre-cancerous areas of the esophagus
- Procedures to relieve obstructions and alleviate nausea, vomiting or other common side effects
- Pre-operative chemotherapy or radiation to shrink tumors before surgery
- Minimally invasive image-guided interventions

- Sphincter-sparing and natural orifice translumenal endoscopic procedures
- Whipple procedure for pancreatic cancer
- Genotyping (*molecular fingerprinting*) for colorectal patients to determine if a patient’s tumor has genetic mutations that might be treated with targeted therapies
- Aggressive drug therapies

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

We offer an extensive array of clinical trials focusing on gastrointestinal cancers, including:

- Investigations of proton beam therapy to treat liver and pancreatic cancers
- Adjuvant treatment for pancreatic cancer
- Anti-angiogenesis drugs in combination with radiation and new “smart drugs”

PET-CT scans are used to inform treatment.

Tucker Gosnell Center for Gastrointestinal Cancers

The Tucker Gosnell Center for Gastrointestinal Cancers is one of the largest and most experienced centers in New England for the diagnosis and treatment of patients with gastrointestinal cancers.

For more information on this program or to view a list of team members, visit massgeneral.org/gicancer
We offer care for patients with cancers of the:

- Bladder
- Kidney
- Penis
- Prostate
- Renal pelvis
- Ureter
- Testis

**INNOVATIVE APPROACHES**

We offer our patients:

- Bladder-sparing techniques
- Minimally invasive surgical procedures
- Innovative chemotherapy approaches
- Autologous cellular immunotherapy, “Provenge,” for asymptomatic or minimally symptomatic metastatic castrate resistant (hormone refractory) prostate cancer
- A new class of targeted drugs that inhibit tumor growth
- “Nephron sparing” kidney surgery to preserve long-term kidney function
- Radiology-based ablation procedures
- Advanced diagnostic techniques to determine which men are candidates for active surveillance and which need aggressive treatment
- Laser ablation
- Intra-operative radiation
- Stem cell transplantation

**ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS**

We offer one of the region’s largest clinical trial programs in genitourinary cancers, including:

- Proton beam radiation therapy for early stage prostate cancer
- Novel therapies to treat and prevent bone metastases from prostate cancer
- Evaluation of circulating tumor cells to understand the biology of prostate cancer
- New “smart drugs” for advanced stage kidney cancer
- Organ preserving therapy for invasive bladder cancer

For more information on this program or to view a list of team members, visit massgeneral.org/gucancer
We provide care and the most advanced treatments for women with all gynecologic cancers, including:

- Cervical cancer
- Endometrial cancer
- Ovarian cancer
- Uterine cancer
- Vaginal cancer
- Vulvar cancer
- Other gynecologic cancers

INNOVATIVE APPROACHES

Our gynecologic cancer specialists are highly experienced in the treatment of both rare and common cancers and are recognized leaders in their fields. Among the innovative approaches offered are:

- Advanced diagnostics through imaging and pathology
- Novel therapies such as cancer immunotherapy and intraperitoneal chemotherapy
- Robotic-assisted and minimally invasive procedures
- Comprehensive lymph node dissection
- Aggressive cytoreductive surgery
- Sentinel node mapping
- Advanced radiation therapies such as proton beam radiation therapy, intensity modulated radiation therapy, outpatient brachytherapy and intra-operative radiation therapy
- Concurrent chemotherapy and radiation
- Intraperitoneal chemotherapy
- Preservation of sexual function and fertility
- Access to the most innovative therapies through leading edge clinical trials
- Complementary therapies, such as acupuncture, to manage side effects

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

Our program is one of the nation’s outstanding centers for clinical research in gynecologic oncology. We offer clinical trials using:

- Innovative agents that target specific molecular features of a patient’s tumor
- Anti-angiogenesis agents that target blood vessels feeding tumors
- Therapies designed to overcome drug resistance

For more information on this program or to view a list of team members, visit massgeneral.org/gynonc
We treat a large number of patients with head and neck cancer, including cancers of the:

- Oral cavity
- Oropharynx
- Larynx
- Hypopharynx
- Paranasal sinuses
- Nasopharynx
- Salivary glands
- Thyroid
- Skin on the head and neck

INNOVATIVE APPROACHES

Our head and neck cancer specialists collaborate with imaging and surgical experts at the internationally respected Massachusetts Eye and Ear Infirmary to provide comprehensive care for every patient. We are among the busiest centers in the nation, offering patients:

- Specialized diagnostic services
- Targeted agents along with chemo-radiation treatments to improve outcomes and minimize side effects

Free-flap tissue transfer operations
- Innovative surgical techniques to preserve or restore appearance and function after treatment
- Proton beam radiation therapy
- Stereotactic radiosurgery with protons
- Intensity-modulated and intra-operative radiation therapy
- High-dose rate brachytherapy

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

Our active research program includes both basic science and translational research initiatives designed to connect our basic science advances with therapeutic interventions. Our clinical trials focus on:

- Developing more effective treatments
- Limiting the complications of therapy on speech and swallowing
- Improving quality of life

For more information on this program or to view a list of team members, visit massgeneral.org/headneck

Center for Head and Neck Cancers

The Center for Head and Neck Cancers is one of the most experienced centers in the nation dedicated exclusively to the evaluation and treatment of patients with cancers of the head and neck, including rare, complex forms of the disease. Our team routinely manages a high volume of head and neck cancer sub-types that other centers may see only once or twice a year.

Lori Wirth, MD, Lisa Arcikowski, NP, and Lindsey Gillooly, RN
Center for Melanoma

The Center for Melanoma provides international leadership and expertise in the most novel treatments for melanoma. We integrate the most current knowledge of cancer genetics, world-class resources for diagnosing and staging skin cancers and leading-edge treatment approaches.

For more information on this program or to view a list of team members, visit massgeneral.org/melanoma

We evaluate and treat:
- Melanoma
- Squamous cell carcinoma
- Merkel cell carcinoma
- Rarer forms of skin cancer

INNOVATIVE APPROACHES

Our physicians and researchers are recognized globally for developing new treatment approaches. Our melanoma drug discovery program seeks molecular targets within melanoma cells in order to identify new drugs capable of attacking those targets. We offer expert evaluation at our Melanoma and Pigmented Lesion Clinic for melanoma and related conditions that may be cancerous. Through our Melanoma Genetics Program, we identify genetic causes of skin cancer and provide genetic counseling for those with a strong family history of melanoma.

Our expert clinicians provide the highest degree of clinical expertise available in the treatment of these cancers. Among the procedures offered are:
- Surgery and reconstruction for primary melanomas
- Lymphatic mapping and sentinel node biopsy, which can determine if cancer has spread
- Hyperthermic isolated limb perfusion, in which doctors isolate blood flow from an affected limb and then treat the limb with high-dose chemotherapy
- Advanced plastic and reconstructive surgery
- Resection of melanoma metastases
- Proton beam radiation therapy
- Intensity-modulated radiation therapy

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

Through clinical research conducted at our Melanoma and Pigmented Lesion Clinic and at the Cancer Center, we offer a wide array of experimental therapeutics for patients with advanced melanoma. Our current melanoma research is aimed at:
- Uncovering cancer-causing gene mutations and drugs that can target them
- Examining the effectiveness of existing targeted drugs
- Identifying tumor biomarkers to improve management of melanoma
- Studying the molecular basis beneath the link between UV exposure and melanoma
Stephen E. and Catherine Pappas Center for Neuro-Oncology

At the Stephen E. and Catherine Pappas Center for Neuro-Oncology, our team of brain, spine and nerve specialists provides innovative, individually tailored treatments for all types of central nervous system tumors. We also have one of the oldest and most experienced neurofibromatosis programs in the United States, and offer patients access to cutting-edge clinical trials.

For more information on this program or to view a list of team members, visit massgeneral.org/neuro-onc

We provide treatment for all types of central nervous system tumors, including:

- Low-grade and malignant glioma
- Glioblastoma
- Meningioma
- Acoustic neuroma
- Metastatic tumors
- Pituitary adenoma
- Cranial base tumors

INNOVATIVE APPROACHES

We offer the full spectrum of conventional care as well as promising new therapies. We perform a high volume of acoustic neuroma procedures, and are leaders in glioblastoma, glioma, meningioma, pituitary adenoma and other common and complex surgical procedures. We are also home to the Cranial Base Program, which focuses on treating tumors at the base of the skull. We have also begun testing our patients’ tumors for genetic mutations to determine appropriate candidates for targeted “smart drug” therapies.

In addition, we offer:

- Immunotherapy
- Angiogenesis inhibitors
- Image-guided neurosurgery
- Intra-operative MRI and CT imaging
- Brachytherapy
- Microsurgery
- Endoscopic cranial base surgery
- Proton beam radiation therapy
- Stereotactic radiosurgery
- Intensity-modulated radiation therapy
- 3-D conformal radiation

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

We offer an extensive array of clinical trials with a focus on new therapies for malignant glioma. Some promising areas of our clinical and laboratory research include:

- Genetic variations in brain tumors
- New therapeutic agents
- New ways to assess the effects of therapy
- Enhancing sensitivity to chemotherapy
Center for Sarcoma and Connective Tissue Oncology

The Center for Sarcoma and Connective Tissue Oncology is a national referral center for expert treatment of bone and soft tissue sarcomas, and is a leader in the development of limb preservation techniques. Our new Stephan L. Harris Center for Chordoma Care is one of the first of its kind to bring a unified focus to the evaluation, treatment and support of chordoma patients, and to research the causes and treatments for this rare cancer.

For more information on this program or to view a list of team members, visit massgeneral.org/sarcoma

We treat many types of bone and soft tissue sarcomas, including:

- Osteosarcoma
- Chondrosarcoma
- Ewing family of tumors
- Chordoma
- Adamantinoma
- Pagets sarcoma
- Lymphoma of the bone
- Malignant fibrous tumors of bone
- Metastatic carcinoma to bone
- Gastrointestinal Stromal Tumor (GIST)
- Rhabdomyosarcoma

INNOVATIVE APPROACHES

We offer patients:

- Proton beam radiation therapy
- Intra-operative radiation therapy
- Intra-operative dural brachytherapy
- MAID protocol, an integrated chemo-radiation program

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

We offer an extensive array of clinical trials, the majority of which:

- Involve targeted agents
- Are designed to identify the best use of these agents in treating advanced disease
- Focus on drug resistance

We are also the site of a National Institutes of Health-sponsored study of familial chordoma.
Center for Thoracic Cancers

The Center for Thoracic Cancers is one of New England’s most experienced programs for the treatment of thoracic cancers. We are among a select few health care institutions in the world to offer comprehensive genotyping of thoracic cancers as a routine component of our pathological assessment.

For more information on this program or to view a list of team members, visit massgeneral.org/thoraciccancer

We provide the most advanced treatments for patients with thoracic cancers, including:

- Esophageal cancer
- Lung cancer
- Mesothelioma
- Thymoma

INNOVATIVE APPROACHES
We provide the latest, most effective treatments as well as promising new therapies, including:

- Genotyping to determine if a tumor has mutations that might be treated with targeted therapies
- Bench-to-bedside medicine, bringing the most promising research to clinical care
- Minimally invasive video-assisted surgery
- Chest and airway reconstruction
- Laser surgery
- Resection of tumors in the chest wall, lungs and mediastinum
- Lung-sparing techniques
- Resection of tumors obstructing a bronchus or in the trachea
- Cryotherapy and radiofrequency ablation for Barrett’s esophagus
- Photodynamic therapy
- Advanced endoscopy service
- Proton beam radiation therapy
- 4-D CT imaging to plan more accurate radiation treatment for patients whose tumors may move due to breathing
- Respiratory gating

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS
We have one of the region’s largest clinical trial programs for thoracic cancers, making clinical trials a key treatment option for many patients. Our active clinical research is currently exploring:

- Novel targeted therapeutic agents that kill cancer cells by inhibiting protein kinases
- New drugs to modify chemotherapy resistance
- Active research in maximizing quality of life for patients with lung cancer
Bone Marrow Transplant Program

Our Bone Marrow Transplant (BMT) Program is renowned for its expertise in blood and bone marrow transplantation. We are a Foundation for the Accreditation of Cellular Therapy (FACT) accredited center for blood and bone marrow transplantation and perform transplants for more than 120 patients per year.

For more information on this program or to view a list of team members, visit massgeneral.org/bmt

We offer blood and bone marrow transplants to treat:

- A wide variety of hematological malignancies
- Other blood abnormalities

INNOVATIVE APPROACHES

Our comprehensive array of BMT services includes:

- Autologous transplants
- Allogeneic transplants
- Among the allogeneic transplant options are matched related or unrelated donor transplants, haploidentical (mismatched related donor) transplants and cord blood transplants

Other advanced techniques include:

- Using drugs that reduce graft vs. host disease, leading to improved safety and effectiveness of BMT as a cancer-fighting therapy
- Using transplantation earlier in the course of therapy
- A therapy we pioneered for patients with multiple myeloma who have renal failure: a kidney transplant conducted at the same time as the bone marrow transplant
- Mini-transplants—in which chemotherapy and radiation are administered in lower doses before the transplant—that lessen the toxicities of the transplant
- Enhancing the safety and efficacy of BMT by developing new strategies for reducing transplant-related toxicities
- Inducing tolerance for solid organ transplants by performing combined kidney and bone marrow transplants

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

Our program benefits from a close association with the Mass General Transplant Biology Research Center. We are dedicated to:

- Enhancing the safety and efficacy of BMT by developing new strategies for reducing transplant-related toxicities
- Inducing tolerance for solid organ transplants by performing combined kidney and bone marrow transplants
Center for Hematology

The Center for Hematology offers comprehensive diagnosis, treatment and referral for all blood disorders, ranging from simple anemia and clotting disorders to major hematological cancers.

For more information on this program or to view a list of team members, visit massgeneral.org/hematology

Our program is renowned for the specialized care of the following hematological conditions:

- Platelet disorders such as thrombocytopenia, immune thrombocytopenia, thrombotic thrombocytopenic purpura and herapin-induced thrombocytopenia
- Reproductive hematology
- Myeloproliferative disorders such as essential thrombocythemia, polythemia vera, myelofibrosis and chronic myeloid leukemia
- Gaucher disease
- Thrombosis and hemostasis disorders
- Hemochromatosis, iron deficiency and other disorders of iron metabolism
- Inherited and acquired anemias

INNOVATIVE APPROACHES

In addition to our expert diagnostic, treatment and evaluation services, our program offers state-of-the-art drug and other therapies, including:

- Blood product (red blood cells, platelets, plasma and coagulation factors) transfusion therapy and specialized blood therapies such as phlebotomy and plasmapheresis
- Coagulation and anticoagulation therapies
- Innovative platelet and red cell growth factors treatment
- Novel forms of intravenous iron therapy to treat deficiencies
- Novel anticoagulants

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

We are committed to improving treatments for blood diseases. Our clinician-researchers are involved in, or leading, numerous clinical trials for new therapies.
Center for Leukemia

The Center for Leukemia is internationally renowned for its expertise in diagnosing and treating all stages and types of leukemia and related disorders.

For more information on this program or to view a list of team members, visit massgeneral.org/leukemia

We treat all stages and types of leukemia and related disorders, including:

- Acute lymphoblastic leukemia
- Acute myelogenous leukemia
- Chronic lymphocytic leukemia
- Chronic myelogenous leukemia
- Hairy cell leukemia
- Lymphoblastic lymphoma
- Myelodysplasia
- Myelofibrosis

INNOVATIVE APPROACHES

Our experts are highly skilled in the diagnosis and treatment of all types of leukemia and related disorders, and consult on a large number of leukemia cases each year. We offer:

- Hematopathology consultations from leading experts in the field, including the latest diagnostic tests, chromosome studies, molecular testing and flow cytometry

- Access to the Cancer Center’s Bone Marrow Transplant Program and to innovative therapies such as umbilical cord blood transplantation and mismatched family member transplants

- Affiliation with the Mass General Center for Regenerative Medicine and Technology to increase understanding of leukemia at the stem cell level

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

We conduct numerous clinical trials in which different medicines and approaches are tested, including:

- Drugs that bind to genetic mutations in the Flt-3 receptor, causing acute myelogenous leukemia

- Therapies for patients with chronic myelogenous leukemia

- Special treatment regimens designed for older patients
Center for Lymphoma

The Center for Lymphoma is a world-class research and treatment center for the care of patients with lymphoid cancer. We have extensive experience in diagnosing and treating Hodgkin lymphoma and the more than 60 types of non-Hodgkin lymphoma, from the most common to the very rare.

For more information on this program or to view a list of team members, visit massgeneral.org/lymphoma

We treat all stages and types of lymphoma, including:
- B-cell lymphomas
- T-cell lymphomas
- Large granular lymphocyte leukemia

INNOVATIVE APPROACHES
Our experts are highly skilled in the diagnosis and treatment of lymphoma cases. We provide both conventional therapies and new treatments through cutting-edge clinical trials. Our patients receive:
- Hematopathology consultations from leading experts in the field, including the latest diagnostic tests, chromosome studies, molecular testing and flow cytometry
- Access to the Cancer Center’s Bone Marrow Transplant Program and to innovative therapies such as umbilical cord blood transplantation and mismatched family member transplants
- Access to the Francis H. Burr Proton Therapy Center, the only proton therapy center in New England

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS
Our research efforts are focused on:
- Developing and testing new therapies that directly target a patient’s lymphoma
- Evaluating new treatments and improving standard treatments
- Reducing the short- and long-term side effects of therapy, including heart disease and second malignancies
Center for Multiple Myeloma

The Center for Multiple Myeloma provides comprehensive care for patients with all stages of multiple myeloma, or cancer of the white blood cells (plasma cells).

For more information on this program or to view a list of team members, visit massgeneral.org/multiplemyeloma

We treat patients with all stages of multiple myeloma as well as patients with related disorders, including:

- Waldenstrom’s macroglobulinemia
- Amyloidosis
- Light chain deposition disease
- Monoclonal gammopathy

INNOVATIVE APPROACHES

Our patients receive the most advanced therapies and have access to innovative treatment strategies, including the Cancer Center’s Bone Marrow Transplant Program. We are also dedicated to advancing research to improve the clinical outcomes and the lives of our patients.

We offer:

- Combination chemotherapy with biological agents
- Bisphosphonates to help treat damaged bones
- Proton beam radiation therapy
- Spine stabilization
- Vertebral augmentation procedures

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

Our clinician-researchers lead or participate in numerous trials to explore new and better therapies for treating these diseases, including studies focused on:

- Novel drug combinations in newly diagnosed patients
- New targeted agents, such as mTOR inhibitors, cell cycle inhibitors, heat shock protein inhibitors and histone deacetylase inhibitors
- High-dose therapy with stem cell rescue with either autologous or allogeneic stem cells
- Immunological approaches, such as vaccination strategies and maintenance approaches
- Alternate approaches to traditional therapies
Center for Cancer Risk Assessment
(Cancer Genetics)

Some individuals have an increased risk of developing cancer based on their personal or family history. The Center for Cancer Risk Assessment provides comprehensive genetic testing, compassionate counseling and referral services for those at increased risk of hereditary cancer.

For more information on this program or to view a list of team members, visit massgeneral.org/ccra

INNOVATIVE APPROACHES

Patients who learn they have a genetic predisposition to cancer have access to:

- Certified genetic counselors experienced in helping patients gather the information they need
- Sub-specialized cancer genetics programs led by cancer specialists who participate in the pedigree review and risk assessment
- Access to psychiatrists and social workers to help cope with the emotional component of genetic testing
- Ongoing monitoring of health status or precancerous conditions
- Genetic counseling and testing for family members
- Prophylactic surgery
- Access to the Mass General Fertility Center’s Pre-implantation Genetic Diagnosis Program, which helps couples with an increased risk for a specific genetic abnormality to have a child unaffected by that particular disease

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

We lead and participate in studies to:

- Develop better understanding of the genetic causes of several cancer syndromes
- Advance cancer treatment and screenings
Palliative Care Program

The Palliative Care Program is designed to help patients and their families with the emotional, physical, social, psychological and spiritual repercussions of late-stage or life-threatening disease. We are available to patients right after diagnosis, during active treatment and beyond.

For more information on this program or to view a list of team members, visit massgeneral.org/palliativecancercare

In addition to pain and symptom management, we help patients and families define their goals for care and make treatment choices.

All services are coordinated with the patient’s other medical specialists. Our goal is to enhance quality of life in the hospital, the patient’s home or in other settings such as a rehabilitation center.

We welcome patients and family members who are facing a serious or life-threatening illness, regardless of diagnosis or ability to pay. We provide services to both inpatients and outpatients, and can make referrals for hospice care.

INNOVATIVE APPROACHES

Our focus is on managing symptoms so patients can enjoy their friends, families and activities for as long as possible. Among the approaches we use to keep patients comfortable, active and alert are:

- A combination of medications and lifestyle approaches that focuses on maximum comfort, tailored to the needs of each patient
- Involvement of palliative care specialists early in treatment
- Support provided through outpatient clinics or home visits (for patients and families living near the hospital)
- Ongoing bereavement support

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

Our recent clinical studies to improve quality of life for cancer patients through palliative care include:

- Encouraging oncologists to discuss and document their patients’ goals of care and end-of-care wishes
- Integrating palliative care early in the treatment of newly diagnosed patients to enhance collaboration and provide more comprehensive care
- Measuring the impact of merging the culture of palliative care with the culture in the Medical Intensive Care Unit

A recent study in the New England Journal of Medicine published by Mass General Cancer Center clinicians, indicates that when palliative care is introduced early, it can lead to significant improvements in a patient’s quality of life and mood, reduce the rate of depression and even extend lives.

Our clinicians provide highly personalized, compassionate care.
MassGeneral Hospital for Children Center for Pediatric Hematology/Oncology

As one of the leading pediatric hematology and oncology services in New England, the MassGeneral Hospital for Children Center for Pediatric Hematology/Oncology provides comprehensive, family-centered care for children and adolescents.

For more information on this program or to view a list of team members, visit massgeneral.org/pedicancer

We care for children and adolescents with all types of cancer and blood disorders, including:

- Malignancies and disorders of the blood
- Sickle cell anemia
- Hemophilia
- Stroke
- Non-malignant diseases of white blood cells, anemias, bleeding and clotting disorders
- Leukemia
- Lymphoma
- Bone and soft tissue sarcomas
- Retinoblastoma
- Brain tumors

INNOVATIVE APPROACHES

Because we focus exclusively on childhood cancers and care for a large number of patients, we have in-depth experience in both conventional and cutting-edge procedures, technologies and supportive care. We offer innovative approaches including:

- Proton beam radiation therapy
- High-dose chemotherapy with stem cell rescue
- Intra-operative MRI
- Computer-assisted surgery
- Stereotactic radiosurgery, which substantially decreases the amount of radiation to normal tissue
- Family-centered care, including a Parent and Family Support and Education series for children, their siblings, parents and relatives
- Long-term Follow-up Clinic for childhood cancer survivors of all ages

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

Our patients have access to National Cancer Institute-supported clinical trials devoted exclusively to children and adolescents with cancer.

These trials are made available through our membership in the Children’s Oncology Group, the primary North American cooperative group that develops clinical trials.

Our faculty members are leaders of this group and serve as principal investigators for several of its clinical trials.
Center for Psychiatric Oncology and Behavioral Science

The Center for Psychiatric Oncology and Behavioral Science is a collaborative effort between Mass General’s Department of Psychiatry and the Mass General Cancer Center. The Center is designed to provide easily accessible, state-of-the-art treatment for the psychological distress often experienced during cancer treatment.

For more information on this program or to view a list of team members, visit massgeneral.org/psychonc

We are committed to a cancer care model that is unparalleled in its ability to treat the “whole patient,” which fosters a positive patient and family experience and the best possible clinical outcomes.

INNOVATIVE APPROACHES

We are at the forefront of this growing field of psychiatric oncology, offering the following advantages to our patients and their families:

- Ability to distinguish and appropriately treat mood and behavior changes related to emotional coping with a cancer diagnosis
- An individualized approach that recognizes the differences in adjustment to diagnosis, disease-related physical changes and side effects depending on age, gender, personality, background and beliefs
- Compassion and expertise in dealing with the feeling of loss brought about by cancer

Our experts in psychiatry and psychology have advanced sub-specialty training in the care of medically-ill patients and are integral to each patient’s specialized cancer care team. We focus on a patient’s mood, anxiety and ability to think clearly while receiving treatment. This may include adjusting medications, clarifying medical and psychological aspects of the disease and treatment and suggesting treatments.

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

Many of our specialists are involved in clinical research to improve the quality of life for patients and their families during cancer treatment. Research areas include:

- Investigation to understand the connection between depression and mortality in cancer patients, as well as the effect of treating depression on survival
- Development of methods to treat anxiety with behavioral interventions, as studies show that patients with anxiety often do not complete treatments
- Studies exploring various health behaviors, particularly smoking, among cancer patients and survivors, as well as the health behaviors and risk perceptions of childhood cancer survivors and of the quality of health insurance coverage for these survivors

Cancer impacts a patient’s physical, mental and emotional well-being.
Radiation Oncology and the Francis H. Burr Proton Therapy Center

The Department of Radiation Oncology at Massachusetts General Hospital combines the clinical expertise of our world-leading radiation oncologists, compassionate patient care and highly advanced radiation therapies to deliver the safest, most effective treatments for cancer and benign tumors.

For more information on this program or to view a list of team members, visit massgeneral.org/radiationoncology

With services located in the James and Ruth Clark Center for Radiation Oncology and the Francis H. Burr Proton Therapy Center, we provide the most sophisticated radiation therapies for tumors in every organ and system of the body.

INNOVATIVE APPROACHES

Using advanced computing and imaging techniques, we led the way in developing some of the most innovative and effective radiation therapies in the world, including:

» Proton beam therapy: Our proton therapy facility is the only one in New England and one of eight in the nation. We developed this breakthrough, highly targeted procedure, which results in improved patient outcomes and fewer side effects.

» Intra-operative radiation therapy (IORT): We pioneered this revolutionary procedure, which helps improve postoperative outcomes. We are one of only a few U.S. hospitals with an operating room dedicated to this treatment.

Our linear accelerators vary in the energy of their beams. We customize each patient’s therapy by using the optimal energy beam for the type and location of tumor. Additionally, we successfully treat thousands of patients with noninvasive and minimally invasive internal and external radiation therapies, including:

» Stereotactic radiosurgery

» Brachytherapy

» Intensity-modulated radiation therapy (IMRT)

» Image-guided radiation therapy (IGRT)

» Prostate ultrasound for daily target localization

» Partial breast irradiation (PBI)

» 4-D computed tomography (CT) scan

» Respiratory gating

ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS

Basic, clinical and physics research are conducted to study the causes and mechanisms of cancer, with an emphasis on translating that work to clinical practice, so that we can offer the benefits of these advances to our patients. Our current research includes:

» Treatment techniques to optimize physical dose conformation to the tumor target volume and to increase precision of the dose application

» Proton and photon studies for locally advanced and metastatic cancers
Survivorship Program

The Survivorship Program provides treatment, counseling and support for patients and their loved ones facing the challenges of living with and beyond cancer. Our services are available to all patients diagnosed with cancer, as well as to a patient’s family, friends and caregivers affected by a cancer diagnosis.

For more information on this program or to view a list of team members, visit massgeneral.org/survivorship

INNOVATIVE APPROACHES

Our program provides a wide range of specialists to help with the many different challenges and stages of cancer survivorship. Patients meet one-on-one with a clinician to address their medical, psychological and social concerns and receive a personalized treatment summary. After a comprehensive evaluation, patients will have access to a variety of services based on their needs, including:

- Psychology, psychiatry, social work and spiritual counseling
- Physical therapy, occupational therapy and neuropsychiatry
- Nutrition
- Smoking cessation
- Genetic counseling
- Palliative care and pain management
- Sexual health and fertility counseling

Clinicians will continue to monitor survivors for late and long-term effects of cancer therapy and will maintain regular communication with their primary care providers.

Additionally, we offer:

- An engaged survivor volunteer network and advisory board
- Oncology providers committed to excellent survivor care
- Supportive care services
- Wellness programming
- Experienced program leadership and a culture of innovation
- Resources and connections of a large academic hospital
- Strong ties to community affiliates

ADVANCING CARE THROUGH RESEARCH

The Survivorship Program is building a comprehensive research program to address the issues that cancer survivors struggle with, including emotional and psychological distress, sexual health issues and long-term effects of treatment.
The Center for Targeted Therapeutics involves the research and development of innovative new treatments targeting:

- Cancer causing mutations
- Mediators of cell proliferation and survival
- Angiogenesis
- Immune cell activation

**INNOVATIVE APPROACHES**

Our researchers and physicians are internationally known experts in the study of new cancer therapies in the laboratory and their application in clinical practice.

The roots of personalized medicine start with the evaluation of novel cancer therapies in the Center for Molecular Therapeutics. Here, 1,000 human cancer cell lines are screened to identify which genetically-defined subgroups within cancers of diverse origin are sensitive to each molecularly targeted therapy. The results inform the selection of patients for participation in clinical trials investigating these drugs. The ability to determine the genetic alterations in each patient’s tumor with SNaPshot (molecular fingerprinting) allows this same genetic information to guide the selection of therapies in clinical trials.

**ADVANCING CARE THROUGH RESEARCH AND CLINICAL TRIALS**

The Center for Targeted Therapeutics conducts extensive basic and translational research to accelerate the delivery of new, cutting-edge therapies into the clinical setting. Our current research includes:

- Next generation EGF receptor, HER2, HER3, ALK, c-Met, PI3 kinase, mTOR, FGFR, ERK and BRAF targeted therapies
- Cyclin-dependent kinase and PARP inhibitors
- Drugs blocking FGF, Tie-2 and other angiogenesis mediators
- Leading-edge imaging methods for determining early response to therapy

For more information on this program or to view a list of team members, visit massgeneral.org/targetedtherapy
A Comprehensive Cancer Center

An integral part of one of the world’s most distinguished academic medical centers, the Massachusetts General Hospital Cancer Center is among the leading cancer care providers in the United States.

For more information about the Mass General Cancer Center, visit massgeneral.org/cancer

U.S. News & World Report consistently ranks the Mass General Cancer Center as one of the top ten cancer centers in the country. Its nurses were the first in Massachusetts to achieve Magnet status in recognition of the hospital’s exceptional nursing care.

Known for providing customized, innovative treatments and compassionate care to both adults and children, the Cancer Center comprises 23 fully integrated, multidisciplinary clinical programs and a vast array of support and educational services. Its network of affiliations extends throughout New England and the southeastern U.S.

The Cancer Center’s commitment to eradicating cancer is fueled by scientific investigation conducted as part of one of the largest hospital-based research programs in the nation. Through a powerful synergy between laboratory scientists and bedside physicians, the Mass General Cancer Center fosters innovation in all phases of cancer research. Physician investigators conduct nearly 400 clinical trials annually.

The Mass General Cancer Center is proud to be a founding member of a Harvard Medical School consortium designated by the National Cancer Institute as a comprehensive cancer center. This prestigious seven-member center forms the largest cancer research collaboration in the country. The promising new treatments developed through this partnership are revolutionizing the future of cancer medicine.
SCHEDULING AN APPOINTMENT

For Patients:
We welcome inquiries from patients, family members and clinicians. The Cancer Center is committed to seeing new patients as promptly as possible, usually within one week.

To arrange an appointment please call 877-726-5130.

For Referring Physicians:
At the Cancer Center, your patients gain access to the vast resources of a premier academic medical center. We schedule prompt appointments and follow up with timely communication to referring physicians.

Clinical Access Line: 877-789-6100
E-mail: MGHCancerCenter@partners.org