Scott

To read Scott’s story, go to yalecancercenter.org/scott

Brain Tumor Program
AT SMILOW CANCER HOSPITAL AT YALE-NEW HAVEN
INTRODUCTION

Over 20,000 people in the United States are diagnosed with brain tumors each year. Thankfully, recent surgical advances and new treatment options for patients with benign and malignant brain tumors have made the outlook for many more patients promising. The Brain Tumor Program at Smilow Cancer Hospital offers patients easy access to specialized care for brain tumors.

Our program is a multidisciplinary group dedicated to the care of patients with primary brain tumors, brain metastases, and neurological complications of cancer. We are the only multidisciplinary consortium providing comprehensive brain cancer care in southern New England and have gained regional and national recognition. In addition to novel treatments, the physicians of the Brain Tumor Program conduct clinical trials through Yale Cancer Center.

The physicians of the Brain Tumor Program offer a wide spectrum of advanced strategies for the diagnosis and treatment of brain cancer including microsurgical tumor removal, intraoperative neurophysiological monitoring, image-guided stereotactic techniques, 3D conformal radiotherapy, stereotactic radiosurgery (gamma knife), and novel, targeted chemotherapies. The program is comprised of the departments of Neurosurgical Oncology, Neurology, Medical Neuro-Oncology, Therapeutic Radiology, Neuropathology, and Neuroradiology. A dedicated patient coordinator facilitates patient appointments and communication, coordinates services, and supports patients and their families.

The expertise of the Brain Tumor Program covers all of the components critical to managing patients with brain tumors: comprehensive evaluation and diagnosis, leading edge treatment options, thorough follow-up, and psychosocial support. Patients are welcome whether they are newly diagnosed or have already received extensive treatment.

“...The physicians at Smilow Cancer Hospital at Yale-New Haven combine experience with the latest technology to deliver the highest quality care for patients with brain tumors. Our Brain Tumor Program has expertise with all types of tumors. We welcome patients seeking a second opinion and we work with providers throughout the region to coordinate care with local oncologists."

— Joseph M. Piepmeyer, MD, Nixdorff-German Professor of Neurosurgery and Section Chief of Neuro-Oncology
DIAGNOSING BRAIN TUMORS
Smilow Cancer Hospital has state-of-the-art technology to diagnose brain tumors with accuracy, including a 3 Tesla MRI, functional MRI, MR spectroscopy, and positron emission tomography. Experienced neuroradiologists read all scans and evaluate the images for diagnosis. In addition, we have two board-certified neuropathologists with special expertise in the morphologic and molecular diagnosis of brain tumors. Their expertise is commonly sought for second opinions from other institutions.

NEUROSURGICAL ONCOLOGY
Yale Neurosurgical Oncology provides one of the most experienced teams of dedicated specialists in the United States. In collaboration with Yale-New Haven Hospital, our multidisciplinary approach to the surgical management of brain tumors enables us to offer surgical expertise for any brain tumor patient.

Our primary surgical goal is to remove as much of the tumor as possible, while preserving our patient’s functional status with safety and precision. To achieve this goal, Yale Neurosurgical Oncology utilizes technology in an operative theater that is unrivaled in the area.

Smilow Cancer Hospital at Yale-New Haven has one of the most experienced intra-operative MRI teams in the world. The use of a high-resolution 3 Tesla MRI with unparalleled anatomical resolution throughout surgery enables our surgeons to closely monitor the removal of a tumor and to confirm during the operation that the goals of surgery have been achieved. Smilow’s unique intraoperative angiography capabilities allow surgeons to decrease blood supply to the tumor making surgery safer. Our surgeons also achieve precision and accuracy through the use of a stereotactic guidance system that utilizes the patient’s unique facial features for individualized surgical care for each tumor, regardless of its location.

Yale Neurosurgical Oncology pioneered the use of brain mapping during surgery to protect critical language and motor function. “Awake” surgery has been performed at Yale-New Haven Hospital since the early 1980s with unparalleled experience. This type of surgery is reserved for select patients with tumors located in high functioning parts of the brain. The use of specialized neuroanesthesia allows the surgeon to interact with the patient during the procedure in an effort to increase tumor resection while preserving critical function.

Our surgeons are also leading the way to identify the genetic causes of brain tumors and to develop the novel therapies that will lead to a cure. Each brain tumor removed at Smilow Cancer Hospital is examined to
define its genomic abnormalities. Multidisciplinary experts discuss the results of the genomic analyses during our weekly Precision Medicine Tumor Board and make individualized patient-specific treatment recommendations that can lead to better outcomes for each of our patients.

Lastly, Yale Neurosurgical Oncology is one of the first groups nationally to offer a novel minimally invasive treatment for brain tumors known as Laser Interstitial Thermal Therapy (LITT). Through a small scalp incision, a laser fiber is placed into the center of a brain tumor and then heat treatment of the tumor is performed under continual MRI guidance. Patients treated with this technique can often be sent home the day after surgery with minimal discomfort and almost no interruption of their other ongoing cancer treatments.

**MEDICAL ONCOLOGY**

Chemotherapy is often recommended following surgical removal of a brain tumor to prevent the disease from returning or to delay its return. Chemotherapy is also prescribed to treat patients with advanced or metastatic disease. Our medical oncology team provides experience and knowledge of innovative treatment options and investigational therapies for brain tumors.

Yale Cancer Center is a major national research center for the development of novel therapies for brain tumors and brain metastases and provides our patients with access to the newest therapies available through clinical trials. New initiatives are focused on use of the immune system to treat cancer, building on the history of immunotherapeutic clinical trials at our center. Another focus of our research program is the development of nanoparticles for improved drug delivery in patients with glioblastoma. New efforts to develop a personalized treatment program for glioblastoma patients based on the molecular ‘fingerprint’ of their tumor are also underway. In addition, we are offering clinical trials for patients with primary CNS lymphoma, brain metastases, and radiation necrosis. Access our current list of clinical trials: yalecancercenter.org/braintrials

**RADIATION ONCOLOGY**

Established as one of the original Radiation Oncology departments in the country in 1958, the Yale Department of Therapeutic Radiology has played a foundational role in the national development of radiotherapy as cancer treatment. Building on this long tradition of excellence, we provide specialized and innovative radiotherapy through a multitude of scientific and translational research endeavors. For our patients with brain tumors, we have the capability to deliver radiation therapy using multiple cutting-edge platforms, such as the Novalis Tx linear accelerator with BrainLab/ExacTrac guidance, the Gamma Knife Perfexion, and the Cyberknife. In particular, our Gamma Knife program is regarded as a national leader in the treatment of primary and metastatic tumors. In addition to multi-institutional clinical trials, we offer unique bench to bedside clinical trials for patients with primary
and metastatic brain tumors. One such example is a clinical trial investigating Mibefradil Dihydrochloride in combination with re-irradiation for patients in whom glioblastoma multiforme has returned after standard therapy. This trial embodies the spirit of innovation and patient care we provide for our patients in need of radiation treatment.

PATIENT SUPPORT SERVICES
Smilow Cancer Hospital places great emphasis on taking care of all of our patients’ needs with the best medical care available and a network of supportive care services. Advanced practice nurses with dedicated knowledge and skills related to the treatment of brain tumors are available to care for patients through the continuum of their illness. Patients and their families are also provided with access to social workers to ensure psychosocial support during their treatment. Other available resources for our patients and/or families include nutritional counseling, physical therapy, art therapy, and pastoral support.

Smilow Cancer Hospital hosts a monthly support group, which is specific to brain tumor patients and their families. In existence for the past 16 years, it was the first support group for brain tumor patients in New England. It is an open group that provides both patient and family members with the opportunity to share common concerns related to brain tumors, such as treatment issues, adjustment, coping mechanisms, illness, and family and caregiver issues. Patients and family members who attend the meetings develop a strong and unique bond and provide emotional support for one another.
HOW TO MAKE AN APPOINTMENT
For more information or to schedule an appointment with a member of the Brain Tumor Program, please contact our patient intake coordinators at (203) 785-2791. They will provide you with assistance during your diagnosis, treatment, and recovery and our nurse coordinator can help answer questions that you may have. Our goal is to ensure that each patient has an outstanding and positive cancer care experience.

When you call, a patient intake coordinator will help to arrange your appointments so that you will see all of the specialists needed during an initial visit.

WHAT TO BRING TO YOUR FIRST APPOINTMENT
For your first visit, our intake specialist will work with you and your doctors to obtain all available imaging films and reports, pathology reports, slides, doctor’s referral notes, and the results of any other pertinent tests or consultations.

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