

Froedtert *Today*

August 2014



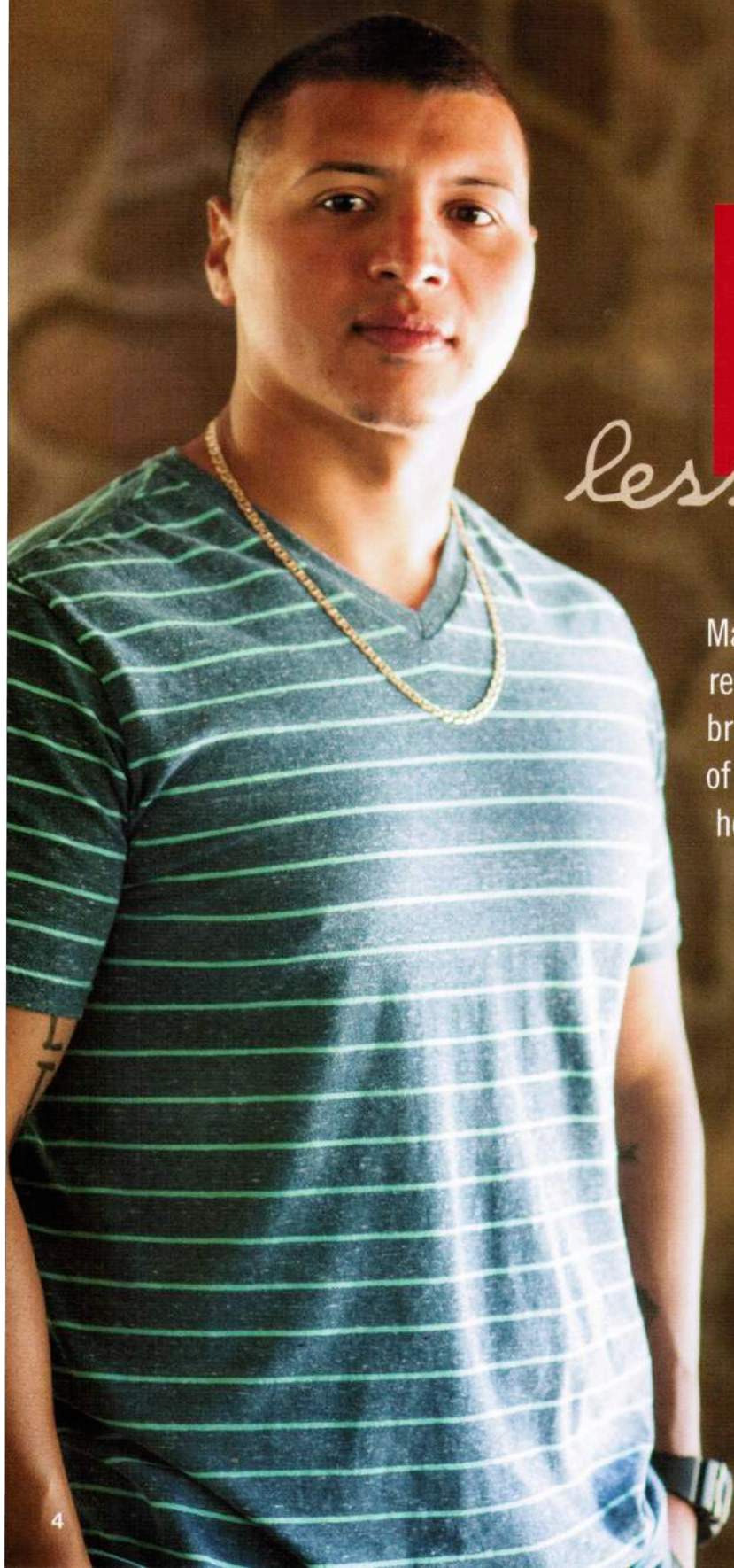
IMPOSSIBLE

Treating **brain cancer**, and preserving **quality of life** during and after treatment.
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**Ranked No. 1
in Milwaukee**





LIFE

less Altered

Manny wasn't even 30 when a seizure revealed a life-altering diagnosis: brain cancer. After a year and a half of treatment, his cancer is at bay and he is looking forward to the future.

Manny Nicolas Jr. knows firsthand that some medical diagnoses change everything. In November 2011, he was at his job as a plant manager for a sandblasting and powder-coating firm in Kenosha when he had a seizure for the first time in his life. His coworkers called 911 and an ambulance took him to a local hospital, where an MRI revealed a lemon-sized mass in his brain.

BRAIN MAPPING

That same night, accompanied by his wife, Edith, Manny was transferred to the Froedtert & the Medical College of Wisconsin Brain and Spine Tumor Program at the Froedtert Hospital campus. There, neuro-radiologists took detailed images of his brain with an advanced technology known as diffusion tensor imaging to determine the precise location of the mass. Guided by this brain map, neurosurgeon Wade Mueller, MD, performed surgery to biopsy the mass and determine if any part of the tumor could be safely removed. Manny was kept awake during the surgery so Dr. Mueller could track his brain function throughout the procedure.

■ MANNY NICOLAS JR.



■ **WADE
MUELLER, MD**

To protect adjacent structures in the brain, Dr. Mueller needed to leave much of the tumor in place.

A DIAGNOSIS

The biopsy revealed that Manny's tumor was a Grade 3 anaplastic oligoastrocytoma. Neuro-oncologist Jennifer Connelly, MD, explained this diagnosis to Manny and his family.

"Brain tumors are graded on four levels with Grade 1 being benign, or noncancerous, and Grade 4 being cancerous and the most aggressive," Dr. Connelly said. "A Grade 3 tumor like Manny's is considered a malignant brain tumor. It's incurable, but with treatment, we're able to control it for a long period of time."

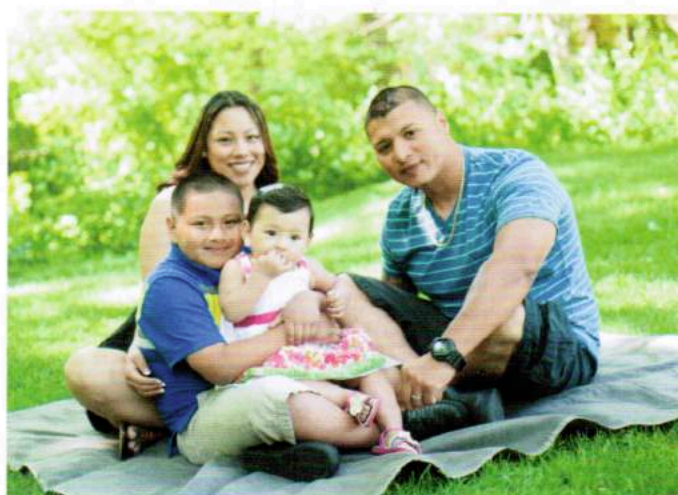
All patients newly diagnosed with brain tumors within the Froedtert & the Medical College Brain and Spine Tumor Program are discussed at the weekly meeting of the brain tumor conference, made up of specialists including neurosurgeons, neuro-oncologists, radiation oncologists, radiologists, pathologists, psychologists and researchers. The group looks at images and pathology reports, learns about the patient's life, and then uses its collective expertise to develop individualized treatment plans for each patient. These specialists use the same approach with patients who have recurring cancer; group evaluation and planning is especially important when deciding how to treat a tumor that is growing again. This multidisciplinary approach ensures that every treatment option is considered.

Treatment usually doesn't start for four to six weeks so that the patient can heal from the surgery. In Manny's case, the goal of his treatment was to "put the tumor into hibernation so that it does not grow," Dr. Connelly said. The first phase involved a six-week course of the chemotherapy drug temozolomide, taken daily as a pill form, a convenient alternative to infusion chemotherapy.

During that same period, Manny also underwent six weeks of daily radiation treatment closer to his home. He was referred to treatment with a Medical College of Wisconsin radiation oncologist who treats patients at the State Senator Joseph F. Andrea Regional Cancer Center at St. Catherine's Medical Center Campus. Through this relationship, patients can take advantage of the academic medical center expertise, and receive treatment closer to home.

In addition to the Froedtert Hospital and Kenosha locations, brain cancer patients can be treated at the Froedtert & the Medical College of Wisconsin Community Memorial Hospital campus in Menomonee Falls and St. Joseph's Hospital campus in West Bend, both part of the Froedtert & the Medical College of Wisconsin Cancer Network.

Patients often have misconceptions about radiation therapy, based on the experiences of friends and family decades ago. Better imaging, better treatment techniques, and better equipment have dramatically improved the patient's experience. For example, radiation oncologists use more focused radiation to treat a tumor and a margin of



■ **MANNY** with his wife, **EDITH**, and their children, **ANDREE** and **DESTINY**

about 2 centimeters around the tumor, where studies show cancers most often recur.

A NEW PHASE OF THERAPY

Manny tolerated the treatment well and moved on to the next phase, which involved 12 more months of less-frequent chemotherapy. This allowed him to return to work on a reduced schedule.

"From the moment he was diagnosed, Manny was concerned about getting back to work and supporting his family," Dr. Connelly said, so his team worked to



■ **JENNIFER
CONNELLY, MD**

accommodate his goals. Manny likes that Dr. Connelly is knowledgeable, compassionate, and just a phone call away. When he suffered from headaches at the beginning of his treatment, for example, he felt anxious that his tumor was growing. She returned his call quickly to reassure him that headaches are a common side effect of treatment.

Manny never considered going anywhere else for care, in part, because of the warmth of the physicians and other staff who cared for him.

"I liked the way they treated me," Manny said. "They care a lot and did everything possible to help me." His medical team was even there to celebrate when Manny and his wife received the exciting and surprising news that they were expecting the couple's second child. Their daughter, Destiny Bella, was born in May 2013, a month before Manny completed his chemotherapy treatment.

FEELING HEALTHY

He's now in the surveillance phase, in which he receives an MRI every two to three months to check for tumor growth. If all goes well, the team will recommend MRIs every four to six months. Dr. Connelly knows these scans make

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patients anxious, so she makes an effort to review the images the same day to provide quick feedback, a practice that Manny said he appreciates. The days leading up to a scan are “nerve-wracking,” he said. But he feels healthy, is back to working full-time, and doing his best to enjoy life as normal.

“Manny is doing just fantastic given that he has a diagnosis of something we can’t cure,” Dr. Connelly said. Many of her patients experience that: “The vast majority of our patients maintain quality of life for quite some time.” And advances in chemotherapy and radiation mean patients can feel well while undergoing treatment. “I have patients who travel all over the world while on chemotherapy,” Dr. Connelly said.

Manny credited three things with helping him cope with this challenging journey: the support of his wife and parents, his faith,

and his regular gym habit. In those moments when anxiety about the future troubles him, “I grab a water bottle, grab my headphones, and hit the gym,” he said. He’s looking forward to a fun summer, visiting the Wisconsin State Fair with his children and attending an outdoor music concert with his wife. And he gives much of the credit for this life to his team at Froedtert.

“They’ve helped me get to where I am today,” he said. ■

The physicians of the Froedtert & the Medical College of Wisconsin Brain and Spine Tumor Program specialize in treating tumors in complex areas of the brain, spine and spinal cord while preserving physical and cognitive abilities. To make an appointment, call **414-805-0505**. For more information, visit froedtert.com/brainspine.

Research is the Difference



Physicians and researchers in the Froedtert & the Medical College of Wisconsin Brain and Spine Tumor Program are leading the development of new cancer therapies. As part of the region’s only academic medical center, they are actively involved in research and collaborations to offer patients access to many national clinical trials. These trials offer the opportunity for patients to benefit from new tests and treatment options that often become the standard of care.

Striving for Answers - Neuro-oncologist Jennifer Connelly, MD, and her colleagues are currently running clinical trials to determine if new chemotherapy drugs can be combined with existing drugs to make them more effective and delay the length of time until a cancer recurs. Dr. Connelly is also involved in the ongoing Act IV study of a “vaccine” for patients newly diagnosed with glioblastoma multiforme, a common,

fast-growing type of brain cancer. This study evaluates whether adding the investigational vaccine, designed to stimulate an immune response that kills the cancer cells, to standard chemotherapy helps patients live longer.

Imaging Research With International Reach - Medical College of Wisconsin scientists are studying how advanced imaging techniques can help physicians monitor patients on Avastin®, a drug that inhibits the development of new blood vessels that feed a tumor. Physicists Kathleen Schmainda, PhD, and Peter LaViolette, PhD, have developed ways to use perfusion MRI, which measures blood flow within the brain, to track the development of blood vessels in tumors. “We’ve been able to show that the changes in blood volume may predict which patients will respond to the drug and those who won’t,” said Schmainda. Her data collecting was so cutting-edge, it was adapted as part of an international multicenter trial. Her team is also developing ways to use MRI to detect the cancer cells that are missed by standard imaging techniques.

Quality of Life After Brain Radiation - Research shows that whole brain radiation therapy for brain tumors can cause side effects including changes in cognition or thinking ability. “But we don’t fully understand why some patients show more changes in their thinking ability compared to others who went through the same treatment regimen,” said neuropsychologist David Sabsevitz, PhD, director of the Froedtert & the Medical College Neuro-Oncology Cognitive Clinic. He and radiation oncologist Joseph Bovi, MD, are using advanced neuroimaging techniques to determine which patients might be particularly vulnerable to these side effects. That way, physicians can take steps to guard patient quality of life through treatment and beyond. ■

