## **A New Hope** When a relatively common cancer started to appear in an uncommon group, an MSK team set out to understand why. Katie Rich holds Hope, age 4, who was born after Katie was treated for stage IV colorectal cancer at MSK. MEMORIAL SLOAN KETTERING CANCER CENTER



- Will and Katie Rich at home in Rockville Centre on Long Island, where they love to explore their local beaches with their four kids. Katie is able to have follow-up appointments at MSK Nassau, a brand-new outpatient facility that opened close to their home in 2019.
- A Katie helps Quint, age 8, with his homework. After finishing treatment, Katie returned to teaching middle school math. "My family has settled back into normal," she says.

Katie Rich chalked up the ache in her rib cage to lingering pains from childbirth. At 33 years old, Katie had delivered Brady, her third child, just eight weeks earlier, but she felt strong and vital. Her doctors thought a minor gallbladder issue might be the culprit and sent her for a sonogram.

Just minutes after she left the appointment, Katie's cell phone rang. The scan had revealed suspicious marks on her liver. Soon after, she was diagnosed with stage IV colon cancer. With three young children at home, including a newborn, she was suddenly battling for her life.

"My husband and I were so thrown," Katie says. "I thought colorectal cancer was an old man's disease. I knew nothing about this at first."

Colorectal cancer, which encompasses both colon and rectal cancer, is the third leading cause of cancer deaths in the United States. But it is typically diagnosed in older people with certain risk factors — the opposite of a young mom who had no family history of the disease, ate carefully, and enjoyed a healthy, active lifestyle. She also had none of the typical symptoms of colon cancer.

Katie is part of a disturbing and puzzling new trend. A growing number of people in their 20s, 30s, and 40s — both men and women — are developing colorectal cancer, though they have no genetic predisposition and few obvious risk factors. Researchers call this early-onset colorectal cancer. What's more, people in this age group face wholly different obstacles than older people diagnosed with the disease, including fertility issues and long-term effects that can last decades.

In response, MSK launched the Center for Young Onset Colorectal Cancer in March 2018, the first initiative of its kind in the country dedicated to these younger patients. Its mission is three-pronged: to figure out what's behind the rise in early colorectal cancers, to make the general public more aware of this troubling development, and to help MSK's younger colorectal cancer patients cope with the unique challenges they face.

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The new center was partly spurred by research at MSK and elsewhere that identified a growing number of people diagnosed with colorectal cancer before age 50. That's when many guidelines, including MSK's, recommend baseline colonoscopies to screen people at average risk. MSK's expertise in caring for a large number of people with colorectal cancer — 1,250 each year — helped in spotting the alarming trend early. "I would say five or six years ago, we started to see younger patients with colorectal cancer, including people in their 20s and 30s, who we weren't seeing before," says Julio Garcia-Aguilar, Chief of the Colorectal Service. "We got the impression that something was happening. And we started talking about it."

## **A Stunning Development**

Under the care of medical oncologist Diane Reidy Lagunes, Katie received eight rounds of chemotherapy to shrink her tumor in preparation for surgery. Surgical oncologist Martin Weiser then removed 30 percent of her colon, and surgeon Peter Allen removed 70 percent of her liver, where the cancer had spread.

The grueling recovery lasted months. Katie and her family were optimistic despite her dire diagnosis. But then Katie stunned her medical team with a new twist: She was pregnant. "My husband and I were shocked, to put it mildly," she says. Pregnancy would complicate efforts to see if the cancer returned, and if it did, treatment options would be limited. That reality "forced my husband and I to make one of the hardest decisions we've ever faced," she says. "I had three little kids at home already. So do I jeopardize those kids having a mother for a fourth child?"



The Rich family (from left): Quint; Brady, age 6; Katie; Hope; Will; and Madeline, age 9. Katie was diagnosed with stage IV colon cancer just two months after giving birth to Brady.

They decided to carry the pregnancy to term. Daughter Hope was born, happy and healthy, in April 2015.

"Many of our younger patients either wish to have families or are not quite there yet in their lives, so it's really important to have conversations about family planning and fertility preservation," says medical oncologist Andrea Cercek, who is Co-Director of MSK's new center. "Sexual health is important for patients, and everyone needs support. For our younger patients it's even more necessary to intervene early." Treatment for colorectal cancer can also cause incontinence, diminished sexual function, profound changes to body image, and other psychosocial issues.

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Robin Mendelsohn

The center assigns each patient a guide, who leads them through MSK's support services and links their care team with social workers, psycho-oncologists, nutritionists, fertility and sexual health experts, and more.

## The Research Effort

Understanding the cause of the uptick in younger patients is also at the heart of the center's mission. Gastroenterologist Robin Mendelsohn, Co-Director of the center, helped lead an investigation of patient records and found that over the last decade, MSK treated nearly 4,000 people with colorectal cancer who were under 50.

Yet this trove of data raises as many questions as it answers. "We know that the risk factors for colorectal cancer include obesity, smoking, and alcohol consumption," says Dr. Mendelsohn. "But the younger patients we treated actually had lower rates of [these behaviors], including obesity, smoking, and drinking, than their peers who did not develop cancer." Researchers are now focusing on concerns about the Western diet, the possibility that genetics may play a role that has not yet been discovered, and changes to the microbiome, the complex community of bacteria and other microbes that live in the human body and help digest food and regulate the immune system.

As for Katie, she has passed five years of being cancer free. "It's like my family has settled back into normal, where cancer isn't so much the focus," she says. She returned to work

teaching seventh and eighth grade math, and she's jumped back into her family's swirl of activity. She's also joined MSK's fundraising event Cycle for Survival. Dr. Mendelsohn, who is part of Katie's care team, calls her "a superwoman, the poster child for younger people with colorectal cancer."

Katie says she is grateful for the support she received. "There's a huge need," she says, "especially an emotional need. You are just going through so much, and it's so intense. You can't do this alone. You need help." ■



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