

World-Class Rower Wins Race, Overcomes Afib

Frederick Schoch from Franklin, Mass., is the executive director of the Head of the Charles Regatta in Boston. The 62-year-old father is also a world-class rowing champion. In fact, in 2009, he and his crew won the Regatta in the "50 and Older" category for the fifth consecutive year. However, Fred soon after developed atrial fibrillation (afib), and he feared he would never be able to compete again.

But that was before Fred was referred to the care of Mark E. Josephson, MD, chief of Cardiovascular Medicine at the CardioVascular Institute at Beth Israel Deaconess Medical Center in Boston. Dr. Josephson is an internationally recognized expert in electrophysiology and catheter ablation.



Afib, a condition that is on the rise in the United States, involves episodes of irregular, rapid heartbeat caused by faulty electrical signals in the heart. This often results in blood clotting in the left atrium (upper chamber), which can lead to heart failure and stroke. Treatments typically include medications (such as beta-blockers or anti-arrhythmic drugs) or interventions (such as catheter ablation).

Symptoms Appear While Rowing

Fred's initial afib symptoms-heavy breathing and lightheadedness-appeared a couple of years ago while he was rowing. Anxious, he immediately saw his primary care physician, who sent him to a major medical center in Boston (not BIDMC). There, Fred was diagnosed with paroxysmal afib, (in which the irregular heartbeat comes and goes) and was put on a drug called Diltizim in an attempt to regulate his heart rate.

Fred had heard that afib drugs often produce side effects like fatigue, loss of libido, and bleeding. While he was pleased that he didn't experience ill effects, he was very frustrated that the medication wasn't helping him.

"Rowing is my passion; it's in my DNA," says Fred, whose father was an Olympian rower. "I couldn't imagine sitting on the sidelines. But with afib, I couldn't even walk up the stairs."

Another Route to the Finish Line

Fred became frightened as his episodes persisted. Eventually, a fellow rower referred him to BIDMC, where he met with Dr. Josephson, who has treated more than 1,000 cardiac arrhythmia patients, including several dozen rowers. Fred instantly felt that his heart was in the right place.

Dr. Josephson told Fred that he seemed to be an ideal candidate for catheter ablation: he had paroxysmal afib and he was a high-endurance athlete. But first, Dr. Josephson wanted to see how Fred would respond to a drug called dronedarone, which can sometimes control heart rhythm. When that approach didn't work, Dr. Josephson went ahead with the ablation procedure, which involves a catheter (tube) that reaches the heart tissue where abnormal

impulses cause the irregular beat. The catheter is inserted through the groin, and the membrane between the right and left atria is punctured. Catheters are placed at the pulmonary veins, which are the source of atrial fibrillation triggers in 90 percent of paroxysmal afib. The cardiologist delivers a high-frequency, low-voltage current to the site, burning the tissue to isolate the pulmonary vein from the atrium so triggers can't get out to initiate afib.

According to Dr. Josephson, the procedure, which usually lasts two hours, reduces the frequency of afib and the symptoms associated with it about 70 percent of the time. About 30 percent of patients have recurrent arrhythmia (some not afib), and some need a repeat procedure.

In Fred's case, he spent one night at BIDMC and went back to work just two days after the ablation. Dr. Josephson prescribed Flecainide to keep him stabilized and warfarin to thin his blood. Less than a month later, Fred had a single episode of afib while taking a stress test, which is not unusual.

Back in Business

Soon afterwards, Fred, feeling great, resumed rigorous training for the next Head of the Charles Regatta, last October, just over a year since his procedure. The result? His sixth first-place finish.

Today, Fred is weaned from his medications and embracing his work, his workouts, and more rowing competitions around the world.

"I am eternally grateful to Dr. Josephson," says Fred. "He and his team deserve the highest praise."

Meanwhile, Dr. Josephson downplays his status as a world-renowned cardiologist. "The greatest reward for me is when a patient tells me I've changed his life," he says.

And the greatest satisfaction for Fred is that he's still in the race...and still winning.

Cardio-Oncology Patient Now “Doing Better than Ever” After Surviving Breast Cancer and Related Heart Issues

Kathleen Mingle, 66, received her first shock when she was told she had breast cancer. The second shock came when she learned that her chemotherapy therapy, albeit effective, was damaging her heart.

Mingle, a former English teacher in Boston and resident of Allston and Arlington, now lives in Harwich on Cape Cod. Her journey began in 2006 with her annual mammogram.

“I’ll never forget when I got the call,” she said. “My doctor told me I had breast cancer. It was so scary. I was running up to 20 miles a week and thought I was in perfect health.”

Mingle had three lumpectomies at BIDMC to remove the mass on her right breast. Next, she underwent chemotherapy infusions at BIDMC’s Breast Care Center once every other week for a

year. Then, under the coordination of BIDMC, Mingle had six weeks of radiation therapy at Cape Cod Hospital.

Cardio Concerns

Shortly thereafter came the next surprise, when Mingle learned that her chemotherapy had reduced her heart function and put her at risk for heart failure.

Mingle had been on Herceptin, a preferred chemotherapy treatment for HER2 breast cancer, a type of cancer that tests positive for a protein called Human Epidermal Growth Factor Receptor. According to a study published by the *Journal of Clinical Oncology*, 5%-10% of patients who receive Herceptin for at least one year will experience some sort of heart problem.



James D. Chang, MD, director of the recently formed Cardio-Oncology Program at BIDMC's CardioVascular Institute, says that cardiotoxicity resulting from cancer treatment can, ironically, be more life-threatening than the cancer itself. Because of this, patients undergoing certain chemotherapy and radiation treatments need to be closely monitored.

"In Kathleen's case," says Dr. Chang, "we were particularly concerned based on the elevated risk presented by her type of breast cancer. While she originally didn't present with any symptoms, we needed to keep monitoring her, and on a follow-up visit, we performed an echocardiogram and discovered that her left ventricle ejection fraction (LVEF) rate was dangerously low."

According to Nurse Practitioner Monique Nestor, a key player on Mingle's team, LVEF measures the percentage of blood leaving the heart each time it contracts. Anything 55% or more is considered normal. Before starting the Herceptin treatment, Mingle's LVEF was 63%. During this particular echocardiogram, her LVEF was only 28%, showing a markedly reduced cardiac function.

Dr. Chang prescribed medication to raise Kathleen's LVEF. She started taking Lisinopril and Metoprolol Succinate, a combination of medications that can help improve cardiac function, as documented in studies. In addition, since the Herceptin had proved to be effective in treating her cancer, which was in remission, Dr. Chang and his oncology colleagues decided stop the chemotherapy treatment.

Slowly, Mingle's heart started to return to normal. Over the next two years, Dr. Chang and his team performed multiple echocardiograms to check her progress. In December 2009, her LVEF reached 55% and has been fine ever since.

"Our program fills a great need through the collaboration of specialists in cardiology, oncology and non-invasive imaging," says Dr. Chang. "Kathleen's case is a prime example. Without such collaboration, patients may trade one deadly disease (cancer) for another (heart failure)."

Better than Ever

Through all the changes in Mingle's life, one constant has been her trust in BIDMC.

"The distance and traffic weren't major considerations since I didn't want to take chances," she says. "My doctors at BIDMC have been fantastic. Dr. Chang is so smart and kind; you know he's going to do the best for you. And I think of Monique as my friend. She's so easy to talk to and makes me feel good every time I go in."

Eight years after her initial diagnosis, Kathleen says, "I'm doing better than ever, even more active than I was before the cancer." She enjoys golf, workouts, tennis, and spending time with her son and granddaughters.

To provide maximum protection for her heart function, she is still on a low dose of Lisinopril and Metoprolol Succinate and will be for the foreseeable future.

"I had no hesitation about following the treatment plan because I trust Dr. Chang. Anything he tells me to do, I'm going to do it," she says.

For check-ups once a year, Kathleen now sees BIDMC's Christina Herold, MD, for oncology and Dr. Chang for heart appointments.

Paula Weitz, 81-Year-Old Survivor of Two Heart Attacks: "Dr. Feinberg Is Always Here for Me, and I'm Still Here, Too!"

"It couldn't be anything serious."

That's what 81-year-old Paula Weitz thought when she began to have chest discomfort one Saturday morning in 2007. She was folding a blanket in the laundry room in her apartment building in Newton, Mass., when she felt "something funny."

"It never occurred to me that I might be experiencing symptoms of a heart attack," she recalls. "After all, I was never overweight, I was always active, and I never needed to see a cardiologist."



So, Paula ignored warning signs (associated with not feeling right) and went about her business that day, visiting the Natick Mall with friends. But later that evening, when she still wasn't feeling right, she checked in with a neighbor, who drove her to the Emergency Room at Beth Israel Deaconess Medical Center in Needham. After being evaluated there, an ambulance whisked her to the ER at BIDMC in Boston.

When the tests performed there confirmed that Paula was indeed having a heart attack, she was shocked. She was taken to the cardiac catheterization laboratory, where they performed cardiac catheterization, which involves a thin tube (catheter) inserted into an artery and threaded to the site of blockage in the coronary arteries of the heart. It also can involve the use of stents to open the channel of the diseased arterial segments. In Paula's case, the catheter was placed through her groin, and two stents were implanted.

After three days of hospitalization, she was discharged and felt great. She was anxious to resume her schedule, including volunteer activities and exercising on the treadmill in her building. But first, she needed to meet with a cardiologist. She chose Loryn Feinberg, MD, medical director of the Women's Cardiovascular Health Program, part of the CardioVascular Institute at BIDMC.

Paula told Dr. Feinberg she thought she had been in fantastic health and never considered herself to be a candidate for heart disease. While Dr. Feinberg acknowledged the positive aspects of Paula's lifestyle, she focused on her risk factors: Paula was a smoker and on medication for high blood pressure and cholesterol.

Lifestyle Changes

"Dr. Feinberg is an amazingly caring doctor, and I adore her," says Paula. "She's also very insistent, and she read me the riot act about smoking. I guess I needed that."

According to Dr. Feinberg, "Paula fits the profile of many of our patients. It's so important that patients recognize potential risks and work with us to promote their cardiovascular health. Too often, women ignore their symptoms and assume they are more susceptible to other diseases, even though more women die of heart disease than anything else."

After Paula agreed to the heart-health program prepared by Dr. Feinberg, she was thrilled to resume her community activities, including tutoring in Dorchester and participating in inter-generational programs in her building. "I can't imagine not maintaining a busy routine, and I was grateful to have the chance to do that," says Paula, who worked as a salesperson at Macy's in Boston for 12 years before retiring in 2007.

Ever since her first heart attack, Paula has seen Dr. Feinberg for periodic check-ups and kept up with the heart-health program, except for what she calls "occasionally cheating" by smoking a cigarette. She enjoyed her exercising and spending time with her son and two grandchildren.

Another Shock

Then Paula had another unexpected setback. In November 2011, the day before Thanksgiving, she felt a stabbing sensation in her chest and numbness in her left arm. This time, she didn't hesitate. She called 911 and quickly found herself back in the Emergency Room at BIDMC in Boston. Though her pain seemed to ease, the test results confirmed a blockage, and Paula returned to the cardiac catheterization laboratory, this time for a procedure involving a stent with a catheter that was inserted through her wrist.

"I was really frightened the second time," says Paula, "but I felt strong after the procedure, and I was happy to see Dr. Feinberg again."

Dr. Feinberg referred Paula to a comprehensive cardiac rehabilitation program at Newton-Wellesley Hospital, where she works out, does yoga, and receives nutritional counseling.

“Now,” says Paula, “I’m doing everything right, including absolutely no smoking. Dr. Feinberg has taught me that coronary disease is an ongoing concern, and you have to take it very seriously.”

“I will always be grateful to Dr. Feinberg. I know she is still here for me. Thanks to her and the team at BIDMC, I’m still here, too!”

The Dance Goes On: Aortic Heart Valve Patient Doing “Amazingly Well” After Valve Implant Procedure Saves Her Life

Margaret Wilson, 89, has always enjoyed dancing. She has fond memories of couple dancing with her husband over many years. Following his death in 2002, Wilson wanted to stay active, and after moving into a mobile home park in Carver, Mass., she started line dancing with a group in the clubhouse.

As Wilson grew older, she weathered “typical” challenges for a woman of her age, including knee and hip placements and macular degeneration. Then, early in 2014, she developed an irregular heartbeat, had less energy, and started to experience shortness of breath. Thinking of her husband and fearing that her own health was failing, she hoped there would be a solution for her.

There was.

In July 2014, her cardiologist referred her to the CardioVascular Institute (CVI) at Beth Israel Deaconess Medical Center (BIDMC) in Boston, for treatment of aortic stenosis. This narrowing of the aortic valve leads to weakened heart function and reduced blood flow from the heart to the body. The CVI is a center of clinical research in aortic valve therapies, and offers the widest range of treatment options in New England.

Meeting with the Team

At the CVI, Wilson met with her team, interventional cardiologist Jeffrey Popma, MD, director of interventional cardiology clinical services, and Kamal R. Khabbaz, MD, chief of cardiac surgery. They admitted her to the hospital immediately.

Unfortunately, Wilson was not a candidate for surgical aortic valve replacement (AVR), the traditional open heart surgery for patients with severe aortic stenosis. Her new doctors told her about an alternative therapy: a minimally invasive procedure called transcatheter aortic valve repair (TAVR). Popma and Khabbaz are recognized experts in this therapeutic approach,



having both been active as principal investigators in TAVR clinical trials. The procedure involves implantation of a bioprosthesis—a synthetic valve—to take over for her diseased valve. This is done non-surgically, through a catheter, or tube, that is inserted through an artery and into the heart.

“It was just fine with me that I’d avoid open heart surgery,” says Wilson.

Prior to the procedure, she had a CT scan to help her doctors determine where to insert the catheter, as well the proper sizing for the valve and catheter. Fortunately, with the wide range of bioprosthesis options available at the CVI, there was one that would fit through her narrow blood vessels.

During the procedure, which typically lasts two hours, doctors inserted the catheter through Wilson’s groin and guided the new valve into position. It immediately began functioning as a replacement for her native valve.

Back to the Dance Floor

Wilson took her first steps the day after the procedure. Four days later, she was discharged with no complications. Within a week, she started to resume normal activities. And a month later, at her BIDMC check-up, she saw Popma and Kim Guibone, the lead nurse practitioner, who said she was doing “amazingly well.” Wilson was happy to hear she wouldn’t need another check-up for six months.

“I’m very grateful that I had this option available to me,” says Wilson, who learned that without the TAVR procedure, there had been a 50 percent chance that she wouldn’t survive more than a year. She adds, “I actually feel 10 years younger! I’m back on the dance floor, I go bowling, I take fitness classes, and most of all, I’m here to enjoy my kids, my grandkids, and my great-grandkids...all 12 of them!

“My great-grandkids call me ‘Gram Gram.’ I call myself blessed.”