

# Double winner: Patrick Shaw beat cancer, then heart disease

*The cancer therapy that saved his life led to heart problems 20 years later*

BY MARK L. FUERST



As the family chef, Pat serves up heart-healthy meals with lots of whole grains and vegetables and little salt or processed foods.

**T**he day after Patrick Shaw returned home from his honeymoon in 1989, he passed out. Blood flow to his brain had been cut off by the pressure of two large tumors in his neck pressing against a large blood vessel. The 29-year-old resident of East Hampton, N.Y. was rushed to Southampton Hospital, where he was shocked to learn he had stage 3 Hodgkin's lymphoma. Little did he know that the radiation and chemotherapy he was about to receive to cure his cancer would scar his heart and lead him to have several silent, near-fatal heart attacks and a stroke 20 years later.

Many childhood and young adult cancers are now treated successfully, including up to 90% of Hodgkin's lymphoma patients, who go on to live active, normal lives. But cardiovascular effects are often seen in cancer survivors as they get older, particularly among those who received radiation therapy to the central part of the chest or who took anti-cancer drugs called anthracyclines as part of their chemotherapy regimen. (For more information, visit [www.heartinsight.com](http://www.heartinsight.com) to read our online-only bonus article, "Assess your risk of heart damage from radiation.")

In September 1989, according to standard protocols at the time, Pat received two types of chemotherapy; one of them contained anthracycline. He received 13 chemotherapy sessions over eight months, and then had 27 sessions of radiation therapy over another four months, which put his cancer into remission. After treatment, Pat



went on with his life, feeling fine, continuing his work as a contractor and starting a family with his wife, Kim.

## SUDDEN CHANGES

Twenty years after his treatment for Hodgkin's, Pat, now 49, began waking up frequently in the middle of the night in a cold sweat. "I felt weak, I couldn't go back to sleep and I was exhausted during the day," he says. "I thought it was just stress. I had a tight feeling in my chest for hours. I almost got used to it. In retrospect, these were the signs of mild angina and small heart attacks." He didn't say anything to Kim about these symptoms.

On the job building houses, Pat began feeling very tired, which was odd for him. He had always been an active guy; he wrestled and ran track in high school, had worked in construction all of his life, coached his sons' hockey teams and practiced lacrosse

## Heart risks from radiation therapy

Among Hodgkin's lymphoma patients who have received radiation, cardiovascular disease is one of the most common causes of death. Studies have shown that these patients have an increased risk for coronary artery disease, heart valve disease, heart failure, pericardial disease (disease of the heart lining) and sudden death. These complications are often the result of radiation-induced damage to the lining of blood vessels. Compared to the general population, Hodgkin's lymphoma patients have higher heart risks if they were treated before age 21 or had radiation to the central part of the chest, which increases the risk of death from a fatal heart attack by 1½ to 3 times. Women who received chest radiation therapy for breast cancer before 1984 also have an increased risk of developing serious heart problems.

With improvements in radiation techniques, including smaller amounts of radiation aimed at specific body areas, the risk of cardiovascular complications has declined. But patients treated through the mid-1980s have a higher risk of heart failure and heart valve problems. "If you had chest radiation for lymphoma in the central part of the chest and have chest pains or tightness and shortness of breath, you should be evaluated by a cardiologist," says Drusin.

with them. His energy levels had gotten so low that he let his meticulously tended garden go to seed. "I just didn't have the energy," he recalls.

On Sunday morning of Labor Day weekend 2010, Kim saw her husband lying on the couch, breathing heavily. "Pat was not responding [to me]. He couldn't talk," says Kim, the Natural Resources Director for the Town of East Hampton. "Pat has a high tolerance for pain and is very stubborn. He also is afraid of doctors because of his experience with radiation and chemotherapy. It was a struggle to get him to go to the hospital."

Kim finally convinced Pat to go to the hospital, where doctors discovered he had dangerously high blood pressure. They put him on blood pressure lowering medications and kept him overnight for observation. That evaluation showed no evidence of a heart attack.

Pat's symptoms continued, and a few days later he went to a heart center in Stony Brook, N.Y. A 24-hour heart monitor showed no signs of an irregular heartbeat, or arrhythmia, but a stress test suggested that he had experienced previous small heart attacks. At that point, Pat decided to have his medical records sent to a cardiologist in New York City, Ronald Drusin, M.D., Professor of Clinical Medicine at New York-Presbyterian Hospital.

"When Pat came to see me, he still had chest pain, a rapid heartbeat, high blood pressure and shortness of breath," Drusin says. "We catheterized him on August 4, 2010, and found coronary heart disease."

Kim remembers, "I was shocked when Pat called to say they wouldn't let him come home, that he needed immediate surgery on his arteries."

Four of Pat's coronary arteries were blocked, two of them 80%, one 90% and one 100%. "We debated whether he should have coronary bypass surgery or stents placed to open the damaged arteries," Drusin says. "I had significant concerns about doing open-heart surgery because of the scarring around the lining of his heart associated with the radiation Pat had received. Many patients who have had chest radiotherapy for Hodgkin's lymphoma develop scarring of the heart lining, which makes it more difficult to expose the heart and coronary arteries during surgery. This raises the risk of the operation."

Instead of bypass surgery, Pat had five stents placed into three of his clogged arteries. "The one totally blocked coronary artery was destroyed," says Drusin. "Scar tissue had replaced it. Pat had adequate circulation from [other] arteries in his heart, and the three coronary arteries we opened up with stents."

After the procedure, Pat began taking the blood-pressure lowering drug metoprolol, the cholesterol-lowering drug



simvastatin, a baby aspirin to prevent another heart attack and clopidogrel to thin his blood and prevent clotting. Within five days he was well enough to go back to work. "I was still getting used to the medications and felt a little short of breath, but I felt half alive rather than half dead," he says.

About two weeks later, however, "I had a bad night," Pat says. "I felt like I had another heart attack, so I went to Stony Brook Hospital. They stabilized me and I went to see Dr. Drusin the next day." An angiogram showed his stents were working properly, and Pat made the 2½-hour drive from New York City back home. But that night he had a stroke, and his father-in-law drove him back to New York-Presbyterian to see a neurologist. A brain scan and MRI confirmed that a small embolism had led to a stroke. "The angiogram had likely knocked off some plaque that traveled to my brain," says Pat, who luckily has no lasting damage from the stroke except for occasional bad headaches.

## ROAD TO RECOVERY

Gradually over the next month, Pat began to feel better. He was diligent about walking 30 to 60 minutes a day. As the family chef, Pat started to serve heart-healthy meals containing more whole grains and vegetables, no salt and fewer processed foods.

Now 51, Pat checks his blood pressure regularly with a home monitor and still takes metoprolol and a baby aspirin daily. "I don't like the idea of taking drugs, but I have to," he says. "I feel great. I never think about my heart problems, except when I get

my annual check-up. I have the stents in and my blood is flowing."

After his last check-up, "Pat's prognosis is fine as long as he takes good care of himself, which he does," Drusin says. "Pat is a smart guy who doesn't take risks."

Pat spends his weekends driving his youngest son, Cole, 11, to lacrosse tournaments up and down the East Coast, as he did for his oldest son, Ryan, 20, who's now a star varsity lacrosse player at Providence College. And he makes sure to attend his 16-year-old son Tyler's wrestling matches and lacrosse games at East Hampton High School.

In reflecting on his heart disease, Pat says, "It's been an eye-opener. I always worked and took care of my family. I let my heart condition go a long time. I was foolish. If I had not waited so long, I may have had less wear and tear on my body."

Coincidentally, Kim has a relative who had radiation treatments and chemotherapy for Hodgkin's lymphoma in her 20s and recently had heart surgery to open blocked coronary arteries. "This had not been on our radar for Pat, but I was able to share his experience with her," Kim says.

Pat has some simple advice to anyone with symptoms of heart disease: "As soon as you are not feeling well, get to a doctor," he says. "You have to be proactive. You are in charge of your own heart." ■

Pat and his wife Kim keep active together, and he spends a lot of time on his backyard hobby—building birdhouses.