



HEART SURGERY

Magnets Used to Restore Heart

About a year ago, 67-year-old Joe Romano could barely catch his breath enough to walk up a few steps.

Shown: Joe Romano splits wood to heat his home after receiving treatment for an irregular heartbeat with a revolutionary magnetic navigation system.

Today, after successful treatment for long-standing heart problems, the Tinton Falls resident spends about four hours a day outdoors splitting wood to heat his home. "I feel better today than I have in more than 10 years," said the retired New York City teacher and school administrator.

In 2007, Mr. Romano was diagnosed with atrial fibrillation and heart block, which are both irregular heartbeats (arrhythmias).

Atrial fibrillation causes the heart's two upper chambers (the atria) to beat irregularly and out of coordination with the two lower chambers (the ventricles). This increases the risk of stroke. In heart block, the heartbeat's electrical signal is slowed or disrupted as it moves through the heart.

Throughout six years, Mr. Romano had four cardioversions and two ablations to try to stop the atrial fibrillation. He also had a pacemaker (a small device placed under the skin near the heart) put in to keep his heartbeat from going too low due to the heart block. Cardioversion uses electric shocks to the heart, through electrodes on the chest, to restore a normal heart rhythm. Ablation uses radiofrequency energy, delivered through a catheter (a long flexible tube) inserted into a vein in the groin and moved into the heart, to destroy a tiny area of heart muscle and stop the electrical impulses causing the arrhythmia. Nothing worked for long, and the medications Mr. Romano was taking for the atrial

fibrillation exhausted him and hurt his joints and stomach.

Then Mr. Romano found Ziad Younan, MD, and Robert Wood Johnson University Hospital (RWJ)—after reading an article in *Breakthroughs* magazine about a patient treated with a Stereotaxis® ablation procedure—and finally got the right treatment. "When I saw Mr. Romano and he told me his history, I knew that he had been in atrial fibrillation all the time for many years. He was debilitated and tired," said Dr. Younan, an attending electrophysiologist (a cardiologist who specializes in abnormal heart rhythms) at RWJ.

In May 2012, Dr. Younan used the Stereotaxis system to do an extensive, lengthy ablation on Mr. Romano. Stereotaxis uses magnets to help steer the catheter safely to the right spot in the heart. Unlike the rigid catheters used in a regular ablation, the Stereotaxis catheter is flexible and moves easily with the heart's curves. The technology enabled Dr. Younan to ablate the scars caused by Mr. Romano's persistent atrial fibrillation, along with the area that caused the arrhythmia. RWJ is one of just four hospitals in New Jersey offering this technology, and has one of the highest volumes of Stereotaxis procedures in the nation.

"Mr. Romano has not had any atrial fibrillation since the ablation, and he's living a very active lifestyle," said Dr. Younan. The medications that made Mr. Romano even

sicker are no longer necessary. While he also has mitral valve regurgitation (where blood flows backward in the heart because the mitral valve does not close tightly), no treatment is needed, and Dr. Younan is monitoring this condition.

Once Mr. Romano's heart learned how to stay in its normal rhythm, he began working outdoors again. For several months after Superstorm Sandy, he cut extra wood to help people whose homes were lost or damaged stay warm. Now he splits wood for his own use and clears brush on the property, using the tractors he repairs in the winter. Mr. Romano has also started playing his trumpet again, something he did not have the breath to do before. "I can't run a marathon, but I can certainly do all the things I like to do at my age," he said.

Visit www.rwjuh.edu/stereotaxis or call 1-888-MD-RWJUH.

Shown: Ziad Younan, MD, an attending electrophysiologist at Robert Wood Johnson University Hospital, has performed more than 260 Stereotaxis procedures for atrial fibrillation, the most in the region since the system was installed.

