



Charles Ahlum is enjoying life again with his wife, Peg, following sudden cardiac arrest and implantation of an internal defibrillator.

he was stabilized and told that he would need a pacemaker to monitor his heart rhythm. Upon arrival, he was in complete heart block, which was presumably the cause of his cardiac arrest.

When the heart's electrical system—which controls the rate and rhythm of the heartbeat—malfunctions, it can cause irregular heartbeats, or arrhythmias. This can ultimately result in SCA. A pacemaker monitors the heart's rhythm and controls it with electrical pulses by increasing the heart rate. A defibrillator works as a pacemaker but also can stop lethal arrhythmias, which cause 85 percent of SCAs.

Jason Goebel, MD, an electrophysiologist at Grand Strand Regional, was set to begin surgery to implant the pacemaker when Ahlum, again, suffered an SCA, but this time he had a different form of cardiac arrest due to ventricular tachycardia. This was an entirely different arrhythmia than his presenting rhythm and required insertion of a defibrillator instead of a pacemaker to save his life. In addition to monitoring the heart's rhythm, an internal defibrillator can also correct life-threatening arrhythmias with rapid pacing or, as a last case resort, an electrical shock. "Only because of Dr. Goebel's quick reaction and medical knowledge am I still here to talk about it," Ahlum says.

A hidden monster

SCA can affect anyone. Two big risk factors for SCA are having had a

Learn CPR

HealthFinders offers two-hour CPR classes for people ages 12 and older on a regular basis. Call **(843) 839-9933** if you are interested in a class at HealthFinders or for your group or organization.

Sudden cardiac arrest

Leading the way in saving lives

If someone experiences cardiac arrest ...

- **Call 911.**
- Administer cardiopulmonary resuscitation (CPR).
- Use an automatic external defibrillator per instructions, if available.

▶ **A LITTLE MORE THAN A MONTH AFTER HAVING A HEART ATTACK AND QUADRUPLE BYPASS SURGERY, 74-YEAR-OLD CHARLES "MONTY" AHLUM OF SUNSET BEACH, N.C., WAS AT HOME WITH HIS WIFE, PEG, AND FRIENDS WHEN SUDDENLY HIS MIND WENT BLANK.** "Without any kind of ill feeling, I passed out," Ahlum says. "Apparently, I wasn't breathing and didn't have a pulse." Ahlum suffered sudden cardiac arrest (SCA)—a condition when the heart suddenly stops beating. He was rushed to Grand Strand Regional Medical Center, where



previous heart attack and having a heart that functions abnormally. The best way to learn if your heart function is abnormal is to know your ejection fraction (EF), which is the percentage of blood that leaves the heart after every contraction (see “What is your ejection fraction?”). This can be determined by a nuclear stress test or an echocardiogram.

An EF of 55 percent or higher is considered normal heart function, while less than 35 percent indicates a high risk for SCA. For active people like Ahlum—whose EF number was 40 percent—the risk of dying from SCA is higher despite not falling below the 35-percent mark. “Your cumulative risk of dying from it is actually greater if you have fewer heart failure symptoms,” says Dr. Goebel. “Statistically, the average ejection fraction of someone who has cardiac arrest is about 40 to 45 percent. So a person who has poor heart function but leads an active lifestyle will get the greatest benefit from a defibrillator.” The longer you live with a lower EF, the more likely an ICD will at some point save your life.

Understanding internal defibrillators

Lack of patient education and physician understanding has led to a generally poor acceptance of internal defibrillators. Dr. Goebel says that he has a number of patients who are more concerned about the defibrillator’s potential shock than they are about the surgery to have the device implanted. But the shock feature is only a backup if painless, low-energy pulses cannot restore a normal heart rhythm. “Millions of people in the United States are indicated for defibrillators, but only about 40 percent get them,” says Dr. Goebel. “In our area, that number is less than

10 percent. It’s a very significant health problem.”

In the nearly two years since Dr. Goebel’s arrival, Grand Strand Regional’s scope of cardiovascular services has expanded, and the hospital continues to be recognized for quality in cardiac care. Grand Strand Regional’s heart program has received recognition by HealthGrades as the #1 cardiac surgery program in South Carolina for 2010–2012, and the hospital is an Accredited Chest Pain Center by the Society of Chest Pain Centers. In May 2012, UnitedHealthcare designated the Grand Strand Regional electrophysiology program as a premium specialty center based on quality.

In 2011, Dr. Goebel performed more than 200 internal defibrillator surgeries and does not see that number decreasing in the future. “Dr. Goebel explained to my wife and me how an internal defibrillator works and what it’s supposed to do. I couldn’t be better,” says Ahlum.

Jason Goebel, MD, implanted the internal defibrillator that saved Charles Ahlum’s life.

Life with a defibrillator

Since Ahlum had his defibrillator implanted, he has been given a new lease on life. “I feel like I have a stronger heart now than I’ve had the last 70 years,” says Ahlum. “I can drive a car again, go out to lunch with Peg and even play a little golf.”

An internal defibrillator does not guarantee a better quality of life. But after two months most people can go on with their life with no limitations. Grand Strand Regional provides advanced cardiovascular care and education so you do not limit your quality of life. “If you ever have a heart problem, I would advise you to go to Grand Strand Regional,” says Ahlum. “My experience has been overwhelming.”



What is your ejection fraction?

JUST AS YOU TRACK YOUR BLOOD PRESSURE AND CHOLESTEROL NUMBERS, KNOWING YOUR EF NUMBER CAN SAVE YOUR LIFE. TALK TO YOUR DOCTOR TO LEARN YOUR EF.

EF RANGES	WHAT IT MEANS
55 percent and higher	Normal
40–55 percent	At risk, but may not have heart failure symptoms. Talk with your doctor about being put on a regular testing plan.
Less than 35 percent	High risk of sudden cardiac arrest and heart failure. See your doctor to discuss a comprehensive care plan.

