Monitoring Device

(Continued from front page.)

She was instructed to immediately use the monitor's handheld transmitter, or activator, once symptoms occurred to begin storage of the ECG recorded during an episode (the device can also record events automatically). After a fainting event is recorded by the monitor, the stored ECG is then retrieved from the device's memory at the doctor's office.

During this time of confusion, Margie was fearful and emotionally distraught. "I went through a lot of fear that I wasn't going to wake up the next morning," says Margie. "For me it was heart-wrenching to think that I might not be around for my kids to even remember me." Not only was Margie hesitant to carry her baby across the room for fear they would both land on the tile floor if she passed out, she was also scared to be alone with her kids after her husband left in the morning. "Who wants their kids to come in and find you lying on the floor?" says Margie.

Four-and-a-half weeks after receiving the Reveal monitor, Margie fainted several times, and captured the events by using her Reveal activator. At the clinic, the ECG recorded by the monitor revealed that Margie's heart rate would go down to a dangerously low rate of 4.5 to 5 beats per minute during fainting episodes, with her heart stopping for over 13 seconds between beats. Relieved to finally have a clear and accurate diagnosis (episodes of slow heartbeat, or bradycardia), Margie received a Medtronic Kappa® DR 901 pacemaker the very same day.

With the pacemaker pacing her heart, the quality of Margie's life improved immediately. She regained her confidence and was able to resume her active lifestyle. Returning to a more normal life, Margie vividly remembers driving her daughter to a class. "I had this incredible sense of relief knowing that I wasn't a danger to her or myself."

Device Therapy Eliminates Fainting Spells Caused by Abnormally Fast Heartbeat

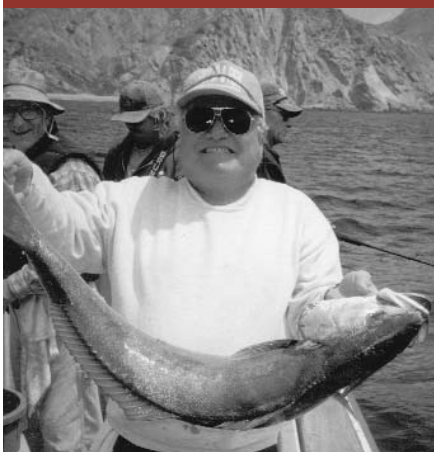
At 68, Sam proudly looks back on his active life. An elevator mechanic for 35 years, Sam is also a licensed pilot, has raced motorcycles for 25 years and logged over 4,100 hours scuba diving. He loves to travel, ride his Harley Davidson, and go boating. Sam also works out at the gym five days a week.

Three years ago, however, Sam's life changed. On a hot sunny day, Sam was fixing an old car at a friend's house. When Sam went into the house for a water break after working for several hours, he fainted just as he was getting one foot in the door. Luckily, his friend caught him before he could fall and, by the time the paramedics arrived, Sam had recovered and was feeling better. Although his vital signs checked out fine, he insisted on going to the hospital because, having suffered a heart attack five years earlier, he didn't want to take any chances.

Sam fainted again before he even got into the ambulance. "The next thing I remember is waking up in the intensive care unit (ICU) at the hospital," Sam recalls. He was informed that doctors had performed a quadruple bypass surgery on his heart. The surgery reroutes, or "bypasses," blood around clogged arteries to improve blood flow and oxygen to the heart. He spent another 16 days in ICU recovering before being released.

Sam learned that the bypass surgery treated his coronary artery disease, but did not cure his fainting. Once a very active person, Sam now barely left his home. "I was afraid to leave the area. I wanted to be close to a hospital in case I fainted again," remembers Sam. During the next nine months, Sam experienced more fainting spells and visits to the emergency room. The fainting episodes had literally turned his active life into one of inactivity and fear.

Sam



Sam's life changed again when he met electrophysiologist (EP) Dr. David Mok, a cardiologist with specialized training in the diagnosis and treatment of heart rhythm problems. Dr. Mok performed several tests, including an EP study, to try and find the cause of Sam's fainting spells. Used to assess the heart's electrical function, an EP study helps locate areas within the heart that may be causing abnormal heart rhythms.

"During the study I 'coded,'" explains Sam. "My heart went into ventricular fibrillation (VF) and I needed to be shocked with an external defibrillator." Sam learned that VF is an abnormally fast heartbeat that begins in the lower chambers of the heart (ventricles). When the heart beats too fast, there is not enough time between contractions for the ventricles to fill with blood, and the pumping of the heart becomes ineffective. As Sam had experienced so many times, an abnormally fast heart rhythm often results in fainting and, if left untreated, can result in cardiac arrest and sudden death.

At his doctor's recommendation, Sam received a Medtronic GEM® DR implantable cardioverter defibrillator (ICD) designed to continually monitor the heart's rate and detect and treat abnormally fast heart rhythms. As soon as the defibrillator detects an abnormally fast heartbeat, it delivers treatment therapies to restore the heart to a more normal rhythm.

Soon after the implant, Sam was able to resume his active lifestyle. Today, Sam is back on track, enjoying an active retirement. He is also back in the saddle, riding his beloved Harley Davidson motorcycle. Recently, Sam bought a travel trailer and is looking forward to taking trips with his wife Toba.

"I felt very comfortable after the ICD was implanted," says Sam. "I felt like my life was given back to me. I no longer have to stay by the house because I now have an insurance policy implanted in my chest."

Tools

Ah, tools. How would we ever get by without them? Today it seems like most of us have the need to use tools in our everyday lives whether we are maintaining our lawns or gardens, snow blowing the driveway, or simply using a cordless drill. For those of you who are considered a "handyman," there is no limit to the number of tools you may have. But what happens if you have an implanted pacemaker or defibrillator? Can you continue to operate the tools as you always have?

Tools and equipment that use electricity and magnets have electromagnetic fields around them. The good news is that Medtronic pacemakers and implantable cardioverter defibrillators (ICDs) have built-in features that protect them from many types of electrical interference.

However, some home power tools and machine shop equipment have the potential to interfere with the function of your device. Using the following guidelines will greatly reduce the likeliness of interference while operating certain tools. Higher-powered industrial or commercial tools may call for additional safety margins. Medtronic Patient Services is available for consultation in these situations at 1-800-551-5544.

Safety Guideline Tips

For line-powered electric tools (tools that plug into a wall outlet in your house or garage) such as saws, drills, sanders, hedge clippers etc:

- Maintain a 6-inch distance between the motor of the tool and your device implant site

For general safety precautions:

- Be certain the tools are properly grounded and in good working condition
- Avoid using the power tool in the "locked on" position
- A ground-fault-interrupt (GFI) outlet is a good safety measure to prevent a sustained electrical shock

For battery-operated tools such as cordless screwdrivers, drills, and saws:

- Maintain a 6-inch distance between the tool and your device implant site

For gasoline-powered tools and gasoline-powered yard equipment such as lawn mowers/tractors, snow blowers, leaf blowers, weed eaters, etc:

- Maintain a 10-inch distance between the components of the ignition system and your device implant site when operating the machinery
- Do not work on the engine while it is running
- Do not touch the coil, distributor, or spark plug cables of a running engine

Note: The use of a gas-powered chain saw is not recommended because your hands and body come into close contact with the electric spark-generating components.

For more information visit: www.medtronic/rhythms/newsletters.

What would happen if my implanted device were too close to the tool?

Your **pacemaker** could continuously pace your heart if it detected the energy radiating from the tool. If your heart is beating on its own, this will result in an irregular heart rate during the time of interference. If your **ICD** were to detect the energy radiating from the tool, it could cause the ICD to deliver a shock.

Will the use of tools damage my device in any way?

No. The use of these tools will not cause any permanent damage or re-programming to your pacemaker or ICD. If you experience dizziness or a feeling of rapid or irregular heartbeats (palpitations), or a shock caused by interference from the equipment or tool, move further away from the tool or equipment. Any potential effects will end when the tool is stopped or moved from your device implant site.