

David's Story: Using an Innovative Procedure to Fight Atrial Fibrillation

David Thompson, an algebra teacher from Plains, Montana, was 42 years old when he started having dizzy spells. These spells started when David was doing something physical, like playing basketball. "I was playing basketball, lost my breath, and could tell that my heart was beating really funny. I couldn't get my breath back. But it went away the next day, so I ignored it. Then it started happening over and over. The spells kept happening even when I was just sitting."

Over the years, David took treadmill tests, a sonogram and a stress test and they all showed that his heart was strong. None of the irregular beats took place during these tests. "So up until this spring, the spells kept happening. I could make it through the day teaching but I could feel my heart was out of whack and could feel exactly when it went back into the right rhythm. It felt good to have it kick right back in and have my circulation back."

David went to Dr. Alan Gabster, a cardiologist, who put him on a 30-day heart monitor, which was able to record his spells, up to four or five a week. Once Dr. Gabster was able to read the results, it showed that David's atrium was beating 3 and 4 times when it should only have been beating one time. Normally, electric impulses trigger the contraction of muscles in the heart's two upper chambers, the atria. During atrial fibrillation, the electric impulses become erratic, and this causes the heart chambers to quiver rather than contract in unison. The result is a host of symptoms and significantly increased risk of stroke.

David had options to help stop the fibrillation, including medications that may have become less effective over time. Because he was young and healthy, David was a good candidate for a new procedure called the "minimally invasive Maze procedure."

Dr. Steven Tahta, a cardiac surgeon with the International Heart Institute of Montana, performed the first two minimally invasive Maze procedures in Montana at St. Patrick Hospital, along with his proctor from Scott & White Institute, Dr. Erik Beyer.

During the procedure, the surgeon makes three small chest incisions on the right side and inserts a camera and small instruments through the incisions. The camera shows the movements of the instruments on a monitor in the operating room. The surgeons made small, strategically-placed ablations in the atria. The ablations generate scar tissue that serves as barriers, trapping abnormal signals in a "maze" of barricades. Only one path remains intact, guiding impulses to their correct destination. The minimally invasive Maze procedure takes 2 to 3 hours. The patient does not have to be put on a heart-lung machine because the surgeon works while the heart is beating. The procedure provides long-term freedom from atrial fibrillation after the scar tissue is fully formed – usually 3 to 6 months after the procedure.

One month following the procedure, David's heart had not gone out of rhythm, and he was gaining back his stamina. "Everyone at St. Pat's did their job of course, but they went beyond their jobs to create such a positive atmosphere – the ICU nurses, the cardiac ward nurses, all the physicians and CNAs – it was wonderful. A big thanks to all of you."