

# The Need for a Pacemaker

Donald Williams is an avid cyclist, but a couple of years ago, he started to notice he couldn't pedal as far.

*"I was still riding, but I was feeling tired. That bothered me, but I thought, "Oh, well I'll just try to pedal harder." But it wasn't helping."* –Donald, Patient

It turns out Donald had an abnormal heart rhythm, or arrhythmia.

*"I wasn't aware that that was the reason, but it was the reason. It was the reason that I was becoming more tired than usual."* – Donald, Patient

When working properly, the heart muscle continuously pumps blood, carrying oxygen and nutrients throughout the body.

The heart is divided into four chambers. When it beats, first the upper two chambers, called the atria, contract, releasing blood to the lower chambers, called ventricles. Next, the ventricles contract, pushing blood out to the rest of the body.

These contractions are controlled by electrical impulses that travel through the heart at what should be a steady rhythm.

But in people like Donald the electrical impulses fire too slowly, which can cause skipped beats and bradycardia or a slow heart rate.

*"Most of the time bradycardia is not life threatening. However, in certain cases, patients can have exertional fatigue, they can become light headed, dizzy or they could pass out."*

- Gabriel Breuer, MD Cardiac Electrophysiologist

For people who are prone to bradycardia, doctors often recommend a pacemaker, which is designed to help the heart beat properly. After Donald's pacemaker was implanted, he had a short recovery period, and then was back in action.

*"I got back on my bicycle, I went back into the gym and did my workouts, working slowly towards the effort that I had been putting out prior to this, and everything turned out fine."* –Donald, Patient