

## WOLFE-PARKINSON-WHITE SYNDROME “WPW”

Your heart has two internal systems, which work together, to make the heart pump blood to the body. Many people know that the heart has a circulation system (that consists of arteries, veins, and capillaries) which supplies blood to the heart muscle. The heart also has a second system, an electrical system, which provides the electrical impulse to make the heart muscle contract.

Normally, the electrical impulse starts at the sinoatrial node (also called the “pacemaker” of the heart), which is located near the top of the heart (in the right atrium). The electrical impulse then travels down a very specific pathway through the heart, which stimulates the muscle to contract (or pump). In the normal heart, there should only be one pathway (called the AV node), between the top and bottom chambers of the heart, but for some patients, there can be more than one pathway. Usually these extra pathways do not cause any symptoms or problems, and remain undetected. Rarely, these pathways can cause severe tachycardia and possibly death.

When a patient presents with a fast heart rate, the cardiologist will look at the electrocardiogram (ECG) to see if it can help to determine the cause of the fast heart rate. The cardiologist can tell if the electricity is traveling down a different pathway than the usual route, by the way the ECG looks different from the “normal” ECG. In patients with WPW, certain waves, called delta waves, show up on the ECG, and depending on the deflection of other parts of the ECG waves, the cardiologist can roughly estimate where the extra pathways lie in the heart muscle.

Treatment for WPW includes one, or a combination of different approaches:

1. The cardiologist can decide to watch the heart rhythm. Many times the fast heart rate happens only rarely and is self limiting, and requires no treatment.
2. The cardiologist may choose to try different medications (one or more), to keep the rhythm controlled.
3. Another option is Radiofrequency Ablation. The electrophysiologist (a cardiologist that specializes in heart electricity issues) will use special catheters and try to block the extra pathways with bursts of intense waves, so that the electricity does not go down the abnormal pathways.

Any/All of the above treatment options may be used in your care. Your cardiologist or electrophysiologist can review the different options, and determine which are right for you.