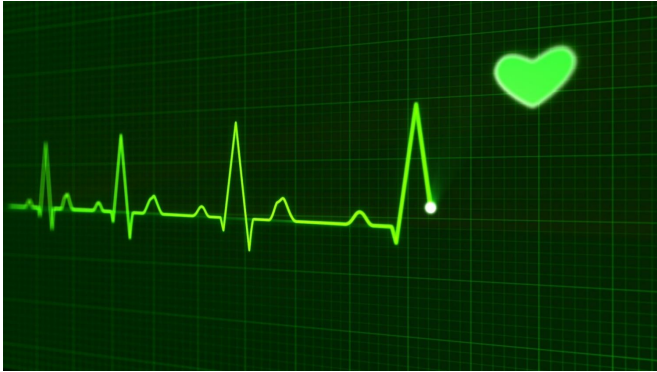


# Cause of ventricular tachycardia determines treatment

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**Dear Mayo Clinic: Recently, I was diagnosed with ventricular tachycardia, but doctors said a cause cannot be determined. What usually causes this problem? Does knowing the cause make a difference in treatment?**

**A:** There are many causes of ventricular tachycardia. Some do not present a serious health threat, while others are potentially more dangerous. It is important to know what's causing ventricular tachycardia because the cause and the context in which it happens have significant implications for how this [heart](#) condition is managed and treated.

Ventricular tachycardia is a [heart rhythm disorder](#), or arrhythmia, caused by abnormal electrical signals in the ventricles—the two lower chambers of the heart. The abnormal electrical signals make the heart beat faster than normal, usually 100 beats or more a minute, and the ventricles beat in a rhythm that's out of sync with the atria—the heart's two upper chambers.

The severity of ventricular tachycardia can vary significantly. In some cases, it may last for only a

few seconds and not cause any noticeable symptoms. In others, it can last much longer. The heart may not be able to pump enough blood to the lungs and the rest of the body because the heart chambers are beating so fast or out of sync that they don't have time to fill properly. That can lead to symptoms such as dizziness, lightheadedness, chest pain, shortness of breath and loss of consciousness.

When ventricular tachycardia happens, some people may notice their heart beating quickly, fluttering or pounding, while others do not feel the irregular heartbeat. In severe cases when it triggers sudden [cardiac arrest](#) that stops the heart, ventricular tachycardia is a life-threatening condition that requires emergency [medical care](#).

The direct cause of ventricular tachycardia is a disruption in the normal electrical impulses that control the rate at which the ventricles pump. But the underlying reason for that disruption can be any one of a number of concerns.

Other heart problems often contribute to ventricular tachycardia. The most common are structural heart disease (abnormalities of how the heart functions), lack of oxygen to the heart due to [tissue damage](#) from heart disease, and blocked cardiac blood vessels due to coronary artery disease. Heart conditions present at birth, such as long QT syndrome, may produce abnormal electrical pathways in the heart that lead to ventricular tachycardia.

Sarcoidosis, an inflammatory disease that can affect the heart tissue, may cause ventricular tachycardia. It also may develop as a side effect of certain medications as a result of an imbalance in the body's electrolytes or due to drug abuse.

Identifying the underlying cause of ventricular tachycardia typically begins with an ultrasound or another type of cardiac imaging to check for

structural heart disease. Depending on the results of that imaging and the circumstances surrounding episodes of ventricular tachycardia, other testing may be recommended.

Those tests can include an EKG to monitor the timing and strength of electrical signals as they travel through the heart. A [stress test](#) may be useful to check how the heart functions when it is working hard. If narrowed arteries are suspected to be contributing to ventricular tachycardia, a heart catheterization procedure can be used to look for blockages. Although it's not always possible to pinpoint a specific cause of ventricular tachycardia, knowing what may be triggering the disorder and understanding when it occurs often are key to effective treatment. Talk to your [health care provider](#) about testing that may be available to identify the cause of your ventricular tachycardia. Or request a referral to a cardiologist familiar with diagnosing and treating ventricular [tachycardia](#) who can provide you with a thorough evaluation and additional information about your heart condition.

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