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**VENTRICULAR TACHYCARDIA**

**What is ventricular tachycardia?**

Ventricular tachycardia is a type of heart rhythm disturbance or arrhythmia in which extra heart beats are generated in the lower heart chambers. The rate may be very rapid thus impairing heart function. This can lead to shortness of breath, chest pain or fainting. Left untreated, this rhythm can degenerate into a disorganized rhythm called ventricular fibrillation which is often a lethal rhythm.

**What causes ventricular tachycardia?**

Ventricular tachycardia is caused by rapid and abnormal electrical "firing" at a location within the wall of the ventricle. Ventricular tachycardia often results from a short circuit within an area of scar tissue. Areas of heart tissue which are ischemic (short of oxygen) are more likely to generate ventricular tachycardia.

Ventricular tachycardia can occur spontaneously. It can occur as a complication of heart surgery, heart attack, mitral valve prolapse, cardiomyopathy, and myocarditis. It can occur as a side effect of certain drugs, especially antiarrhythmic drugs. Changes in blood chemistry, pH, or oxygen level in the blood can initiate ventricular tachycardia.

**What are the symptoms of ventricular tachycardia?**

In some cases, individuals with ventricular tachycardia will experience no symptoms. Symptoms can start and stop suddenly, and can include:

- sensation of feeling the heart beat (palpitations)
- lightheadedness or dizziness
- fainting
- shortness of breath
- angina

**How is ventricular tachycardia diagnosed?**

In its most dangerous form, ventricular tachycardia can cause an absent pulse. In its more stable form, it is manifested as a rapid pulse. Certain diagnostic tests and/or imaging procedures can help diagnose ventricular tachycardia. They include:

- ECG
- electrophysiology study (EPS)
- Holter monitor
- blood chemistry

**How is ventricular tachycardia treated?**

Treatment of ventricular tachycardia varies with each patient's situation and symptoms.

In some cases, no treatment is required. However, in some situations, ventricular tachycardia can become an emergency requiring CPR, electrical defibrillation or cardioversion (electric shock).

Medications are often used to control ventricular tachycardia, including antiarrhythmics, beta-blockers, amiodarone and others. Cardiac surgery may be indicated in some cases. An implantable device called an automatic implanted cardiac defibrillator (AICD) is sometimes used to treat ventricular tachycardia. The device senses ventricular tachycardia and administers a shock to restore normal heartbeat.