

Patient Information

For : Educational Material

Ventricular Tachycardia

What is ventricular tachycardia?

Ventricular tachycardia (called VT or V tach) is a condition in which your heart beats too fast and its contractions start in the wrong part of the heart.

At rest, the heart normally beats between 50 and 100 times a minute, and normal heartbeats and rhythm start in the upper right chamber of the heart (the right atrium). In most cases of VT, the heart beats between 120 and 170 times per minute. It also starts in the lower chambers (ventricles) of the heart rather than the right atrium.

There are 2 types of VT:

- If the fast heart rate lasts more than 30 seconds or you have lightheadedness or fainting, it is called [sustained]

ventricular tachycardia

- . Most people with sustained VT are at a high risk of sudden death and should always be treated.
- If the fast heart rate lasts less than 30 seconds and you do not have any symptoms of lightheadedness or fainting, it is called [nonsustained ventricular]

tachycardia

- . This type of VT is less serious. However, if you have nonsustained VT and a weakened heart muscle from a previous heart attack, you may be at higher risk of sudden death.

How does it occur?

The heartbeat impulse may be slowed by an abnormal heart muscle, medicine you are taking, or damage from a heart attack. Slowing of this impulse causes a short circuit in the conduction pathway. The short circuit causes the fast heartbeat.

VT may occur if:

- You have had a heart attack that hurt the heart's ability to pump. You may not get VT until weeks or months after the heart attack.
- You have severe heart failure, a condition in which the heart cannot pump enough blood to meet your body's needs.
- You have idiopathic dilated cardiomyopathy (IDCM), a disease that affects the heart muscle and causes the heart to enlarge.
- You have hypertrophic cardiomyopathy (HCM), a condition in which the heart muscle becomes so thick that it interferes with the heart's pumping ability. It may even

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block some of the blood flow from the heart.

What are the symptoms?

Most people with VT have symptoms such as:

- weakness and sweatiness due to low blood pressure
- chest pain
- fainting
- a pounding feeling in the chest
- shortness of breath.

How is it diagnosed?

An electrocardiogram (EKG or ECG), which is a recording of the electrical activity of the heart, is the most helpful test. An ECG done during a spell of tachycardia almost always shows the abnormal rhythm. If you do not have tachycardia during a brief ECG test, a 24- or 48-hour ECG using a portable recorder may catch the abnormal rhythm. The portable recorder lets you to place a signal on the tape if you feel any symptoms.

Sometimes a special test called an electrophysiologic study (EPS) is needed to diagnose VT. EPS uses tiny wires inserted into your heart through your veins to study the conduction system and to try to reproduce the VT.

How is it treated?

VT is usually treated with an implantable cardioverter-defibrillator (ICD). Sometimes medicines are also used. The ICD is a device that recognizes the tachycardia and shocks the heart back into a normal rhythm. Sotalol and amiodarone are the most effective medicines.

Also, the conditions that might cause VT are treated. If your heart does not pump well, your healthcare provider will prescribe medicines to help it pump better.

How long do the effects last?

If you have sustained VT, you will likely need treatment for life. This may also be true for people with nonsustained VT, depending on the results of other tests.

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How can I take care of myself?

Be sure to follow your doctor's instructions. If symptoms start while you are being treated, call your doctor right away.

How can ventricular tachycardia be prevented?

The best prevention is to have a heart-healthy lifestyle:

- Keep a healthy weight.
 - Eat a healthy diet.
 - Get regular exercise, as recommended by your healthcare provider.
 - Don't smoke.
 - Have regular medical checkups after age 40.
 - Take all of the medicines your doctor suggests.
- Sustained VT can sometimes be prevented by medicines.

[Related Topics]

Idiopathic Dilated Cardiomyopathy
Hypertrophic Cardiomyopathy
Electrophysiologic Study (EPS)
Implantable Cardioverter Defibrillators (ICDs)

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