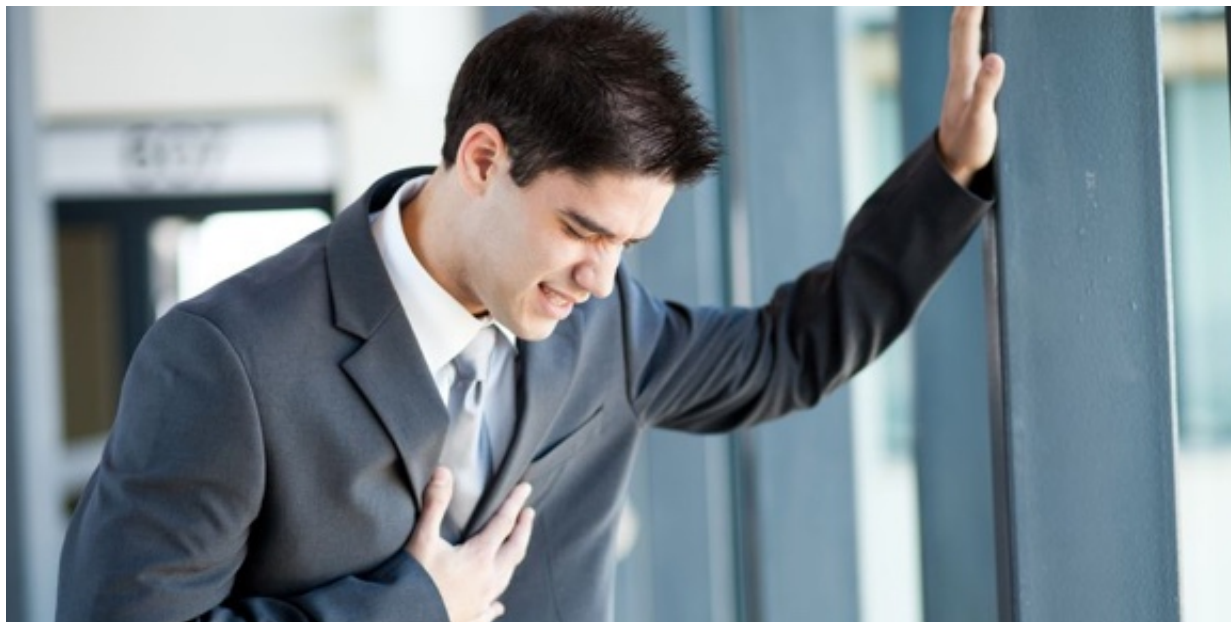


## Tachycardia (Accelerated Heart Rate) - Causes, Symptoms and Treatment



**Tachycardia** refers to **accelerated heart rate** or **heart rate increase above the physiological limit**.

A healthy adult typically has a resting heart rate of **65 to 85 beats per minute**, and the number is even **lower for athletes**. If this number increases to **more than 100 beats**, we are dealing with **tachycardia**, a heart rhythm disturbance which may last for either **long or short periods of time**. It is normal that the heart rate rise during physical activity.

In this regard, it should be taken into account that the **heart of the baby beats much faster** than the heart of the adult, and the number of beats is also increased in **people of lower stature and in women**, which means that not every increase in the heart rate above normal limits necessarily points to tachycardia.

### Causes of Tachycardia

Tachycardia most commonly appears as a **reaction of the organism to certain conditions**, such as:

- extreme physical strain
- stress, sudden shock or fear
- high body temperature

- infections
- anemia
- anxiety
- increased activity of the thyroid gland
- weakness and viral inflammation of the heart
- acute condition of reduced blood flow to the heart, narrowing of blood vessels or strain of the stomach on the heart
- myocardial infarction

## **Symptoms of Tachycardia**

Tachycardia **may come with the following symptoms**, but that is not always the case. In a large number of cases, tachycardia is only revealed by means of **medical examination**:

- accelerated heart rate
- chest pain (angina pectoris)
- choking and oxygen deficiency
- getting tired quickly
- sudden weakness
- dizziness or unconsciousness
- shortness of breath
- lightheadedness
- low blood pressure
- heart palpitations - an unpleasant feeling of improper and/or forcible heart beating



## Types of Tachycardia

Depending on the place of origin, we distinguish between **three types of tachycardia**:

### Sinus tachycardia

Sinus tachycardia is an **increase in heart above 100 beats per minute**, which **gradually arises and ceases** and is most often caused by **physical strain, high body temperature, anemia, decreased concentration of oxygen in the blood stream, psychological tension, impaired thyroid function and excessive intake of alcohol, caffeine or nicotine**.

Sinus tachycardia may be **normal or pathological**.

Strenuous exercising, for example, will cause an increase of the heart rate to over 100 beats per minute. On the other hand, the changes in the frequency with which the

sinoatrial node releases electrical impulses may be **accompanied by serious heart diseases**. Sinus tachycardia can occur in patients with **congestive heart failure** or **severe lung diseases** and it may be the only sign of **hyperthyroidism** or **reduced thyroid function**.

The treatment most often includes **Beta blockers**.

### **Ventricular tachycardia**

**Ventricular tachycardia** originates in the heart's ventricle and presents a **life-threatening condition** that may lead to **ventricular fibrillation, asystole and sudden death**. Also, persistent ventricular tachycardia, which lasts **more than 30 seconds**, precedes **cardiac arrest** and requires urgent treatment.

The heart rate in this type of tachycardia is usually between **120 and 200 beats per minute**, and unlike in supraventricular tachycardia, the heartbeat may be **slightly irregular**.

In acute conditions therapy is based on **antiarrhythmics**, and if there is no reaction, the patient is put under short-term **intravenous anesthesia** and is treated by **means of electroconversion (DC)**.

### **Supraventricular tachycardia**

**Supraventricular tachycardia** is a **fast heartbeat**, with **impulses beginning in the upper heart chambers or atria**. It is manifested as a **fast but regular rhythm** that **begins and ends abruptly**. The number of heartbeats in this type of tachycardia is normally between **150 and 220 per minute**.

**In healthy people**, supraventricular tachycardia is generally **not dangerous**, but the **symptoms may be very uncomfortable** (heart palpitations, swelling, feeling of unconsciousness). More often than not alcohol, coffee or simply excitement can cause this disturbance in rhythm.

**Antiarrhythmics** are used to treat acute attacks and prevent their repeated occurrence. If a patient going through an acute attack does not respond to therapy, **electroconversion** is applied. If recurring attacks continue even after the medication treatment, **radiofrequency ablation** is applied.

### **Treatment of Tachycardia**

Tachycardia requires **treatment under the supervision of a physician**, who will

determine the causes and adequately treat them. However, there are certain self-help methods that can be used in case of tachycardia:

There are a few easy tricks that can help you decrease your pulse rate: **drink a glass of cold water, or rinse your face with cold water; consume Omega 3 fatty acids.**

On the other hand, **cigarettes, alcohol, tea and coffee can increase the susceptibility**, so it is recommended to reduce their consumption or to part with them.

To prevent seizures, a physician may determine some of the means that will **reduce the irritability of the heart muscle. Beta-blockers** are often used for this purpose.