

Heart Rate Monitor



Haydarova M



Heart Rate Monitor-

A heart rate monitor is a portable device typically worn either on the wrist, head, or across the chest. Finger sensors on certain fitness and cardio machines, such as treadmill or elliptical, can also measure your heart rate. These devices capture signals from your heart and display or record the rates.

What do Heart Rate Monitors Do?

They use the strapless heart rate monitors as a guide to know how much their heart is beating at any given time during the workout. By looking at the readings, they can easily step up or slow down their workout routine to achieve the optimum levels for their age.



Types of Heart Rate Monitors

Chest strapped heart rate monitors

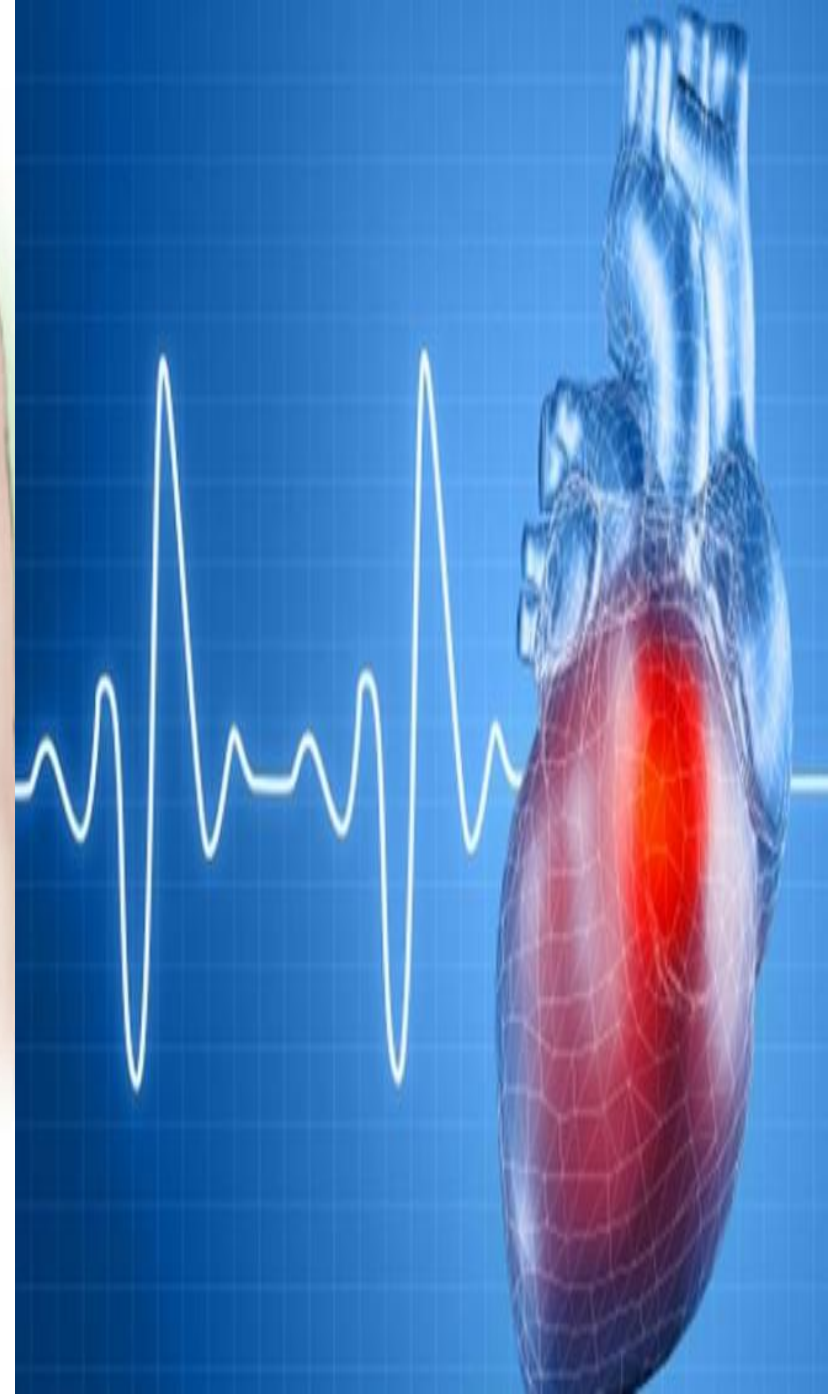
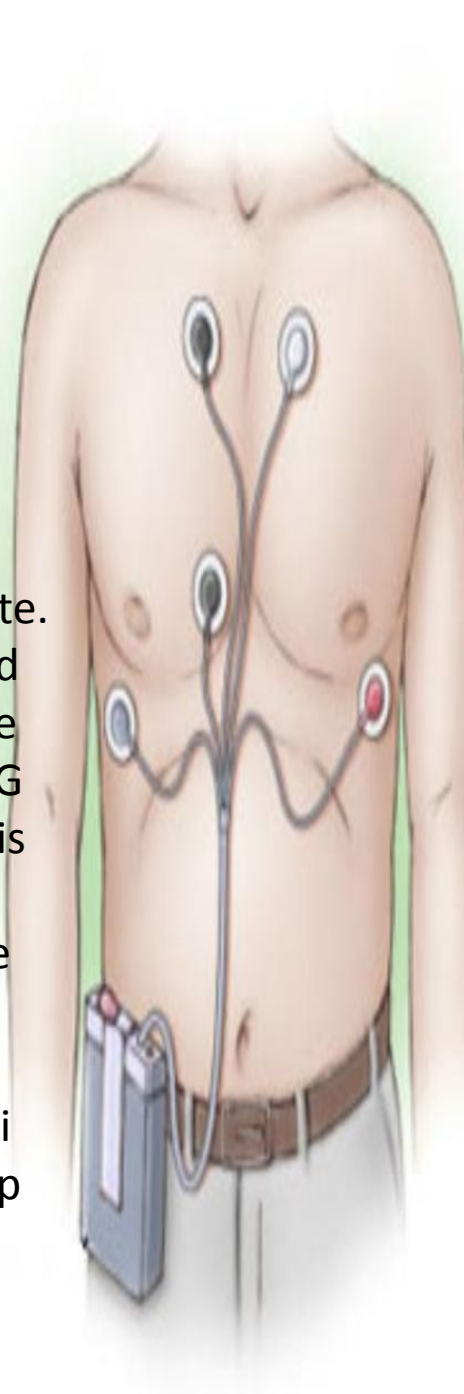
Wristwatch touch type monitor

Continuous reading wristwatch



History of heart rate monitors

The first versions of the heart rate monitors consisted of a monitoring box that had a set of electrodes. This was attached to the chest in order to read the heart rate. This had wires and also led to tangles. After sometime came the first wireless ECG heart rate monitor and this was invented by Seppo Säynäjäkangas in 1977. He designed this heart rate monitor for the Finnish National Cross-Country ski team and was used to help them in their training



Medical uses

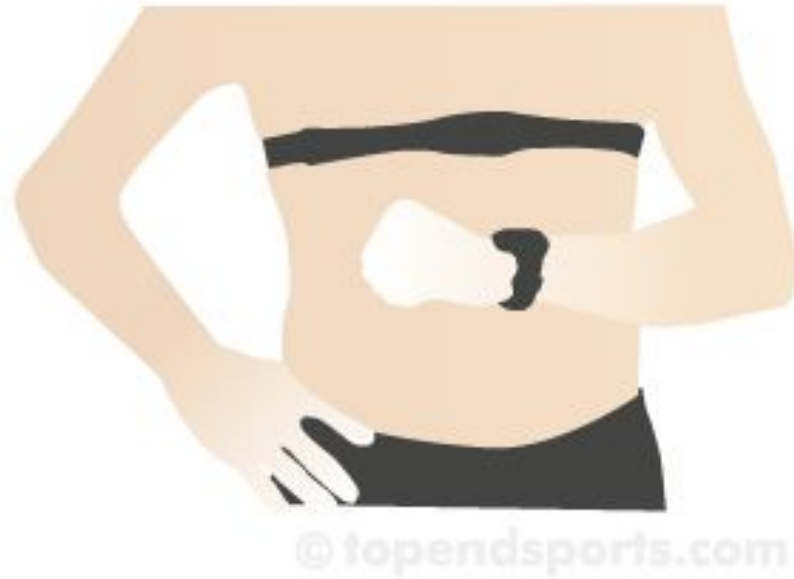


Different Methods of Heart Rate Tracking

Chest Straps

Optical Heart Rate

In-Ear Optomechanical



Manual Method

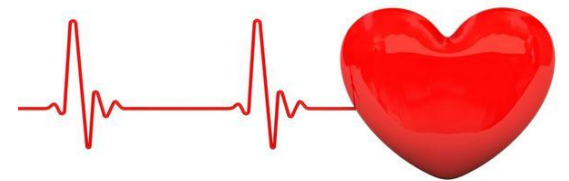
Radial Pulse (wrist) - place your index and middle fingers together on the opposite wrist, about 1/2 inch on the inside of the joint, in line with the index finger. Once you find a pulse, count the number of beats you feel within a one minute period.

Carotid Pulse (neck) - to measure your heart rate at the neck, place your first two fingers on either side of the neck until you can feel the beats. Be careful not too press to hard, then count the number of beats for a minute.



CONCLUSION

In our days, the heart rate monitor is a popular device and finds wide application in various fields. In the U.S., according to IDATA on research and application pulsometry in 2011, the market of monitoring equipment and sensors is estimated more than 700 million U.S. dollars. In 2008, more than 50% major international exporters of manufacturers of medical equipment have been manufacturers of heart rate monitors in China. As a result of executing the report analyzed the current state pulsometry, reviewed heart rate monitor: the story of its creation, principle of operation and device types of the devices and errors of their work was identified as to its scope. Currently, the majority of heart rate monitors and their accessories are produced abroad. Considering the wide application and relevance of the instrument, especially in terms of import, possible consideration of the broader production of heart rate monitors in our country. The production of heart rate monitors in Russia may reduce their market value, which will allow more people to buy the device and use it for diagnostic and therapeu



Thank you attention!

