

# What Is a Normal Resting Heart Rate for Children?

Last Updated: Feb 16, 2014 | By Ed Donner Find the resting heart rate for a child. Photo Credit George Doyle/Stockbyte/Getty Images



or your child.

Resting heart rate, also called pulse rate, is the number of times the heart beats in one minute while a person is at complete rest. Pulse rates that are erratic, weak, high or low can indicate health problems. In several locations, blood vessels run close enough to the skin's surface that the heart rate can be detected. The resting heart rate is easy to obtain on yourself

## Normal Resting Heart Rate

Children have higher heart rates than adults. Heart rate tends to decrease across childhood up to adolescence. Age norms for resting heart rate are available at We Be Fit. There is significant variability in children's heart rates even within age groups. Newborns have heart rates that range from 100 to 160 beats per minute (bpm). Children from ages 1 to 10 have heart rates that range from 60 to 140, and average from 85 to 90. Children who are 11 to 17 have heart rates that range from 60 to 100 bpm. Just as with adults, female children tend to have slightly higher resting heart rates than males.

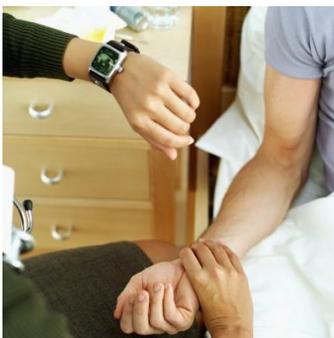
## Measurement

It is relatively easy to measure resting heart rate. The measurement should be obtained in the morning immediately after awakening and before getting out of bed. Note that several factors can affect heart rate, including deep breathing, pressure on the bladder, and emotional arousal such as could be caused by anticipating events of the day or by having a parent at the bedside obtaining a heart rate measurement. To obtain a more reliable measure of resting heart rate, measure the heart rate on five consecutive days, sum the five scores, then divide by 5 to yield a 5-day average resting heart rate.

You can find the pulse in the radial artery of the wrist. With the child's hand facing up, place your index and middle fingers on the child's wrist, below the base of the thumb. Do not use your thumb as you may feel your own pulse from your thumb. Use a stop watch or a clock with a second hand to track the time. Count the number of pulse beats you feel over 30 seconds, and then double this number to get the full heart rate. If the pulse feels erratic, or if you feel that you may have missed a beat or two, measure the heart rate for a full minute. It may be difficult to feel a radial pulse in infants and overweight children. The pulse can also be felt on the inside of the upper arm, over the brachial artery. A child's pulse can also be counted while listening to the heart beat with a stethoscope.

## Measurement Problems

You may have problems with measuring pulse rate if you have decreased sensation in your fingers or if you do not use the correct pressure. If you apply too little pressure, you may miss some beats. Too much pressure can slow the heart rate. Extraneous movement, for example, of the feet or the other hand, can increase the heart rate. Some medications, such as decongestants or asthma medication, can increase heart rate.



## Heart Rate Problems

If your child reports problems associated with an elevated or depressed heart rate, or if the resting heart rate is higher or lower than normal or is erratic or weak, calling your child's doctor for an evaluation. For example, call the doctor if your child has symptoms such as an irregular or rapid heartbeat, chest pain, fainting, dizziness, shortness of breath or light-headedness.

# Active Heart Rate for Teens

Last Updated: Aug 21, 2013 | By Erin Carson Checking their pulses can help teens monitor their active heart rates. Photo Credit George Doyle/Stockbyte/Getty Images

Physical activity can help your teen stay fit and active. Proper pacing during exercise can ensure your teen gets a challenging workout without burning herself out. Monitoring her heart rate provides one measure of how hard her body is working. It can also provide an idea of your teen's overall health – a high heart rate when active is normal, but one that is high during periods of inactivity can indicate an overconsumption of caffeine or even illicit drug use.

## Significance

A teen's heart rate varies depending upon her age and conditioning. The normal, or resting, pulse rate in adolescence can range between 50 to 60 beats per minute to as high as 90 to 100. When active, the maximum heart rate for a teen – the highest amount his heart can safely beat per minute – is about 200 to 205. You can obtain the exact number by subtracting your teen's age from 220. In "The Teen Health Book: A Parents' Guide to Adolescent Health and Well-Being," author Ralph Lopez notes an extremely active and fit teen will normally have a lower active heart rate than one unaccustomed to exercise.

## Considerations

To maximize the cardiovascular and fat-burning benefits of exercise without overdoing it, most teens will want to aim for an active heart rate within 50 to 85 percent of their maximum. This heart rate, defined as the "target" heart rate by the American Heart Association, can provide a measure of the impact of your teen's physical activity upon his heart rate. The target heart rate for a healthy 16-year-old will fall between 102 and 173, depending upon his fitness level and the type of exercise.

## Misconceptions

A chronically high heart rate, even during periods of inactivity, does not automatically mean your teen is ill or using illicit drugs. Although marijuana, cocaine and other drugs can increase your teen's resting heart rate, anxiety and overconsumption of caffeine can also elevate her resting heart rate to active levels. Contact your teen's doctor if you notice a regularly elevated heart rate, especially if accompanied by agitation or dizziness.

## Prevention/Solution

Monitoring his heart rate during exercise sessions can help your teen keep his active heart rate within the target zone. Although your teen can measure his heart rate by placing his hand on his pulse and counting the beats per minute, a heart monitor can provide a more accurate and convenient way to measure the pulse. Since many teens like technology, the Rhode Island Department of Health suggests using a gadget like a monitor can spur interest in exercise and physical health.

## Warning

Health conditions like hyperthyroidism and paroxysmal atrial tachycardia, a cardiac condition in which the heart's upper part sends out rapid electric signals, can cause your teen's active and resting heart rate to be high. These conditions require comprehensive medical evaluation and treatment to avoid further complications, so report any concerns relating to your child's heart rate promptly to her doctor.