

Resting Heart Rate Steven T. Devor, Ph.D., FACSM Exercise Physiology, Upper Arlington Preventative Primary Care

Resting heart rate, the number of beats per minute your heart takes while you are fully rested, is an indicator of both fitness and general overall health. Normal resting heart rate values can range from anywhere between 40 beats per minute to 100 beats per minute, and as your fitness increases your resting heart rate value will actually decrease.

The two most common places to measure your resting heart rate using a two-finger palpation method are at the wrist (via your radial artery) and the neck (via your carotid artery). You should always use your index and middle fingers to take a pulse, not your thumb, as you can sometimes feel your own heart rate through your thumb and this could cause an inaccurate measure.

In order to most accurately measure your resting heart rate one the following body locations should be utilized:

1. 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 (on the thumb side of your wrist joint). Once you find a pulse, count the number of beats you feel within a one-minute period.

2. Carotid (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 heart beats. Be careful not too press inward to hard. Then count the number of beats for a minute.

Resting heart rate measurements should always be taken first thing in the morning, while you are still lying in bed. If you have already gotten out of bed to, for example, void your bladder or brush your teeth, it is best to wait until the next day to take the measurement.

Additionally, the morning that you choose to take your resting should be after as normal a day as possible. Everyone has a different definition of a "normal day", but whatever that is for you, measure your resting heart rate the next morning. Additionally, the morning you choose to measure should be one when you have to go to work that day, typically Monday morning through Friday morning.

The reason to avoid weekend mornings is that often on weekends people will stay up later, or perhaps have more caffeine or alcohol, or larger than normal meals. Any one of those four things (being up later, more alcohol or caffeine, or larger meals) will influence your morning resting heart rate. Thus the need to measure your resting heart rate after as normal a day as possible, in the morning, while still lying in bed, when you have to go to work that day.

You can estimate the per minute heart rate by counting the number of beats over 10 seconds and multiplying this figure by six, or count over 15 seconds and multiply by four, or over 30 seconds and doubling the result. There are obvious potential errors by using this shorthand method. However, the longer you can accurately count the beats the more accurate your result.

As your physical fitness increases, your resting heart rate will decrease. This is a result of your heart becoming a more efficient pump. As your heart becomes fitter more blood is pumped with each beat, and the necessary blood can be delivered to your body with fewer heartbeats per minute.

See the two tables below that outline the expected resting heart rate values for both men and women of different ages. These values are based upon a significant amount of research that has been summarized.

Resting Heart Rate Values for MEN										
Age	18-25	26-35	36-45	46-55	56-65	65+				
Athlete	40-52	44-50	47-53	49-54	51-56	52-55				
Excellent	56-61	55-61	57-62	58-63	57-61	56-61				
Good	62-65	62-65	63-66	64-67	62-67	62-65				
Above Average	66-69	66-70	67-70	68-71	68-71	66-69				
Average	70-73	71-74	71-75	72-76	72-75	70-73				
Below Average	74-81	75-81	76-82	77-83	76-81	74-79				
Poor	82+	82+	83+	84+	82+	80+				
Resting Heart Rate Values for WOMEN										
Age			36-45	46-55	56-65	65+				
Athlete	40-48	42-46	45-49	48-54	50-55	52-55				
Excellent	61-65	60-64	60-64	61-65	60-64	60-64				
Good	66-69	65-68	65-69	66-69	65-68	65-68				

Resting Heart Rate Values for MEN

Above Average	70-73	69-72	70-73	70-73	69-73	69-72
Average	74-78	73-76	74-78	74-77	74-77	73-76
Below Average	79-84	77-82	79-84	78-83	78-83	77-84
Poor	85+	83+	85+	84+	84+	84+