

Target Heart Rate

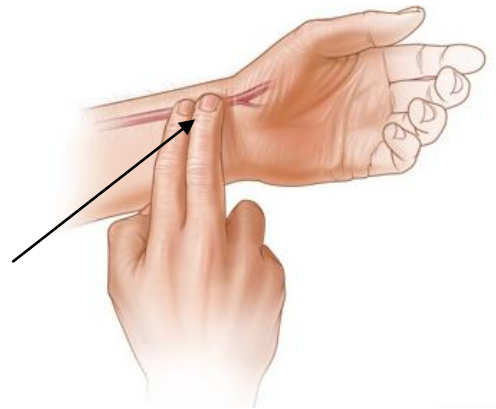
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Why is it important to know your Heart Rate?

- **At rest:** Provides critical information with respect to your cardiovascular health.
- **During exercise:** Allows individuals to monitor their exercise intensity so that they can maximize their workout benefits.

Resting Heart Rate (RHR)

- RHR is the number of times the heart beats per minute during a resting state.
 - range from 50 – 80 BPM for most healthy individuals.
- It is most accurately measured while we are asleep or when you first wake up.
- Detecting your heart rate can be easily done at your **radial artery**



What is Target Heart Rate (THR)?

- A set heart rate that you want to achieve while exercising in order to facilitate cardio-vascular improvement, and maximize benefits.
- It depends on:
 - Your age
 - Your Fitness Level
 - Your Fitness Goals (Cardiovascular Vs Weight Maintenance)
- As a general rule we should exercise between 60 – 90% of our Rate Reserve (HRR).
 - Beginners or low fitness level 60 - 70%
 - Average fitness level 70 - 80%
 - High fitness level 80 - 90%

Periodically, taking your pulse during exercise allows you to gauge your intensity level.

- If your pulse is within your training heart rate zone, you're right on track!
- If not, adjust your exercise workload until you get into your zone.

Two Basic Methods for Calculating Your THR

1. Age Predicted Maximum (APM) method

- Simplest method of estimating THR
- Our maximum heart rate decreases with age.
- Determine your **Theoretical** Age Predicted Maximum Heart Rate(MHR)
- To determine your THR multiply your MHR by the desired intensity.

Example:

Doug is a 22 year old Hockey player who wants to improve his cardiovascular fitness level. His coaches decide to begin his training program with a 30 minute bike ride at 75% of his MHR. What is Doug's THR using the APM method?

Therefore, Doug should be working out at a target Heart Rate of _____ beats per minute to achieve a workout that is approximately at 75% intensity.

2. Karvonen or Heart Rate Reserve (HRR) Method

- This method takes into account your RHR.
- This method better correlates with laboratory measurements of VO₂ max.

Step 1: Subtract RHR from your MHR ($HRR = MHR - RHR$)

Step 2: Multiply your HRR by the desired heart rate ($HRR \times THR$)

Step 3: Add RHR back on the total

Example for a desired intensity of 50%

1. $HRR = 202 - 72 = 130$ bpm
2. $130 \times 0.50 = 65$
3. $65 + 72 = 135$ bpm

Example:

Doug is a 22 year old Hockey player who wants to improve his cardiovascular fitness level. His coaches decide to begin his training program with a 30 minute bike ride at 75% of his MHR. His coaches got him to measure his RHR over the past three days in the morning and his average RHR is 72 BPM. What is Doug's THR using the HRR method?

Therefore, Doug should be working out at a target Heart Rate of _____ BPM to achieve a workout that is approximately at 75% of his VO₂ max.

Resting Heart Rate (RHR): Heart rate of an individual at rest.

Exercising Heart Rate (EHR): Indicates exercise intensity (Heart rate during activity).

Recovery Heart Rate (RHR): The rate at which an individual returns to their pre – exercise heart rate following exercise (Heart rate 3 min. after exercise). The faster you return to resting HR after exercise, the greater your fitness level.