

MEASURING YOUR CARDIORESPIRATORY FITNESS LEVELS

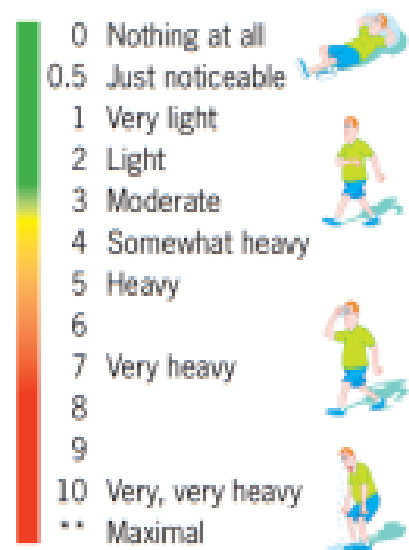
There are three ways to measure your cardiorespiratory fitness levels.

1 – **Talk test method** – This is a very easy method used to monitor exercise intensity. It requires you to talk while working out. If you can talk and exercise at the same time, you are NOT working too hard. This means that your oxygen needs are still being met. If you are out of breath, you are probably working too hard (especially if you have to stop and catch your breath). If you can sing and maintain your training intensity, you are not working hard enough. Strive for the “conversational pace” while exercising.

2 – **Perceived Exertion** – Simply put, perceived exertion is how hard you feel you are working out. It requires you to rate your level of exertion on a Rate of Perceived Exertion Scale.

The RPE scale is used to measure the intensity of your exercise. The RPE scale runs from 0 – 10. The numbers below relate to phrases used to rate how easy or difficult you find an activity. For example, 0 (nothing at all) would be how you feel when sitting in a chair; 10 (very, very heavy) is how you feel at the end of an exercise stress test or after a very difficult activity.

HOW HARD IS THE ACTIVITY?



In most cases, you should exercise at a level that feels 3 (*moderate*) to 4 (*somewhat heavy*). When using this rating scale, remember to include feelings of shortness of breath, as well as how tired you feel in your legs and overall.

3 – **Heart Rate Method** – Measure your heart rate to see if you are in your target heart rate zone.

You can measure your heart rate by checking your rate, during exercise, with:

- Your fingers, at the carotid or radial arteries
- Heart rate monitor – Many pieces of cardio equipment have heart rate monitors attached to the equipment. You can also purchase a heart rate monitor (wrist monitor, or chest strap. Many phone apps also have heart rate monitors (you place your finger on your camera for it to read your heart rate)

FOR BEGINNERS, THE HEART RATE IS THE BEST METHOD. Many beginners may not understand what it feels like to work “very heavy”. When you have been tracking your heart rate, you can get a better idea of what it feels like to be in levels 3 – 4 of the scale (This is your target heart rate zone. 3 being the lower end of the zone, and 4 being the upper end of the zone).

MEASURING YOUR HEART RATE, AND CALCULATING YOUR MAXIMUM, AND TARGET HEART RATES

Important Definitions:

Heart Rate – The number of heartbeats per unit of time, usually per minute.

Resting Heart Rate – Heart rate at rest.

Exercise Heart Rate – Heart rate during exercise

Maximum Heart Rate – The most the heart can beat in one minute before failure (passing out).

Target Heart Rate Zone – The optimal heart rate range, during exercise, to help improve your cardiorespiratory fitness level.

RESTING HEART RATE –

Your resting heart rate is the number of times your heart beats per minute when you're at rest. A good time to check it is in the morning after you've had a good night's sleep, before you get out of bed or grab that first cup of java!

A normal resting heart rate for teens ranges from 60 to 100 beats per minute.

Generally, a lower heart rate at rest implies more efficient heart function and better cardiovascular fitness. For example, a well-trained athlete might have a normal resting heart rate closer to 40 beats per minute.

To find your heart rate, a wearable activity tracker makes it super easy, but if you don't use one you can also find it manually:

- Take your pulse on the inside of your wrist, on the thumb side.
- Use the tips of your first two fingers (not your thumb) and press lightly over the artery.
- Count your pulse for 10 seconds and multiply by 6 to find your beats per minute.

CALCULATING YOUR MAXIMUM HEART RATE –

You can calculate your maximum heart rate by subtracting your age from 220.

For example, if you're 15 years old, subtract 15 from 220 to get a maximum heart rate of 205.

This is the average maximum number of times your heart should beat per minute during exercise.

Maximum Heart rate formula: $220 - \text{Your age} = \text{Your Maximum heart rate}$

CALCULATING YOUR TARGET HEART RATE ZONE –

Once you know your maximum heart rate, you can calculate your desired target heart rate zone.

The American Heart Association generally recommends a target heart rate of:

- Moderate exercise intensity: 50% to about 70% of your maximum heart rate
- Vigorous exercise intensity: 70% to about 85% of your maximum heart rate

If you're not fit or you're just beginning an exercise program, aim for the lower end of your target heart rate zone. Then, gradually build up the intensity. If you're healthy and want to exercise at a vigorous intensity, opt for the higher end of the zone.

For example, if your goal is to work-out at a vigorous intensity, you would use the following formula:

Lower end of the zone: Your maximum heart rate X 70% (or .70)

Upper end of the zone: Your maximum heart rate X 85% (or .85)

PLEASE ANSWER QUESTIONS ON THE FOLLOWING PAGE...

Questions

HEART RATE

Name: _____ Period: _____

1. List, and describe three ways you can monitor your cardiorespiratory intensity levels:
A.

B.

C.

2. Which method would be the best method for beginners to measure their cardio intensity levels? _____

3. Take your Resting Heart Rate 3 times. Record each and calculate the average. Make sure you are sitting, and resting for at least 5 minutes before taking your RHR:

1st _____ 2nd _____ 3rd _____ Average _____

4. Generally, a lower heart rate at rest implies you have _____
_____. For example, a well-trained athlete might have a normal resting heart rate closer to 40 beats per minute.

5. Using the % of Max HR method, calculate **your** maximum heart rate, and Target Heart Rate when exercising at 70% to 85% of your Maximum heart rate:

Your Age: _____ Your Maximum HR: _____

Target Heart Rate = 70% _____ to 85% _____ of your MH

6. Describe what maximum heart rate is:

7. Describe what Target Heart Rate Zone is: