



CU SPORTS MEDICINE
Training Heart Rate
Worksheet

Before starting any exercise program, you should consult with your doctor to determine if the program is suitable and safe for you as an individual. You should also do that before using the information provided in this worksheet.

1. Calculate your Maximal Heart Rate (HR_{max})

(The person in our example is 40 years old.)

Example:
$$\begin{array}{r} 220 \\ - 40 \text{ (your age)} \\ \hline 180 \text{ beats/min} = \text{HR}_{\text{max}} \end{array}$$

Now you do it:
$$\begin{array}{r} 220 \\ - \text{ (your age)} \\ \hline \text{beats/min} = \text{HR}_{\text{max}} \end{array}$$

A slightly different method may be appropriate for vigorously active people whose actual maximal heart rate is higher than that calculated by the standard formula:

Example:
$$\begin{array}{r} 210 \\ - 20 \text{ (1/2 your age)} \\ \hline 190 \text{ beats/min} = \text{HR}_{\text{max}} \end{array}$$

Now you do it:
$$\begin{array}{r} 210 \\ - \text{ (1/2 your age)} \\ \hline \text{beats/min} = \text{HR}_{\text{max}} \end{array}$$

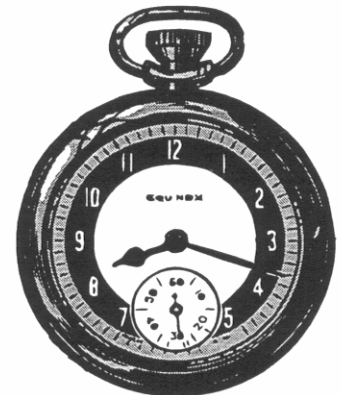
2. Calculate your Training Heart Rate

Determine your intensity level. For most of us, it's not necessary to exercise at a maximal effort level to meet our health and fitness goals. So we exercise at a certain percentage of our maximal heart rate. Some athletes want to monitor their training intensity very precisely to achieve specific results.

Consider the following suggestions:

Beginning pace or long, slow distance	60 – 75%
Aerobic conditions (moderate to high)	70 – 85%
High-intensity continuous exercise	80 – 90%
High-intensity interval training	85 – 100%

The bottom line in determining a training pace is **HOW YOU FEEL**. Listen to your body and adjust your training intensity on days when you're particularly tired or stressed out. Hot or cold weather may also require an adjustment. **If your exercise heart rate shoots up higher than usual, slow down.**



Tune in to your rate of breathing. With moderate-intensity cardiovascular training, you should feel yourself breathing faster and deeper. However, you shouldn't be gasping for air. Can you pass the

good old talk test? **You should be able to carry on a conversation without panting and gulping.** If you can sing an opera, you should push a little harder!

You now know your HR_{max} , and what intensity level you want to be exercising. To get the heart rate for your desired training range you multiply your HR_{max} by the low percentage and then the high percentage of your desired training range. For instance, if you are 40 years old and have chosen to exercise at 70 to 85% of your HR_{max} :

Example:

$$\begin{array}{r} 180 \text{ (your } HR_{max}\text{)} \\ \times 0.70 \text{ (low end of training range)} \\ \hline 126 \text{ beats/min} \end{array} \qquad \begin{array}{r} 180 \text{ (your } HR_{max}\text{)} \\ \times 0.85 \text{ (high end of training range)} \\ \hline 153 \text{ beats/min} \end{array}$$

Your training heart rate is 126 to 153 beats/min.

Now you do it:

$$\begin{array}{r} \text{(your } HR_{max}\text{)} \\ \times \text{ (low end of training range)} \\ \hline \text{beats/min} \end{array} \qquad \begin{array}{r} \text{(your } HR_{max}\text{)} \\ \times \text{ (high end of training range)} \\ \hline \text{beats/min} \end{array}$$

Your training heart rate is _____ beats/min

When taking your pulse during a workout, you should begin counting within 15 seconds of stopping exercise. Don't completely stop, but keep moving. Otherwise, your heart rate will start to slow down and you won't get an accurate picture of the intensity of your workout. Have a fitness professional show you how to find your pulse spot in your wrist or neck. Count for 10 seconds, starting your count with zero. It's often convenient to have a 10-second range already calculated. That way you don't have to struggle with the math every time. To get a 10 second count, divide your training heart rate by 6.

Example:

$$126 \div 6 = 21 \qquad 153 \div 6 = 26$$

10 second count range is:
21-26 beats each 10 seconds

Now you do it:

$$\text{_____} \div 6 = \text{_____} \qquad \text{_____} \div 6 = \text{_____}$$

Your 10 second count range is:
_____ beats each 10 seconds