

Karvonen Formula - Training Heart Rate Calculation

To maximize the benefits of ScubaFit training it is necessary to establish your heart rate training zones. These training zones are based on your maximum heart rate, which is the highest number of times your heart can contract in one minute. Working within 60% to 80% of your maximum heart rate is most beneficial for overall health. The 70% to 80% heart rate training zones improve the ability of the body to take in and distribute adequate amounts of oxygen to working muscles during physical activity. If you have heart conditions it is recommended that you measure your maximum heart rate by taking a max stress test administered by a physician. Otherwise, the most respected fitness standard for calculating your training heart rate zones is the Karvonen Formula developed by internationally renown physician and exercise physiologist, **Martti Karvonen**.

Do The Math - It's Easy!

As soon as you wake up in the morning, before you get out of bed, take your resting pulse by placing two fingers under the back corner of your jaw (on the carotid artery) and count your heartbeat for one minute. This number is your Resting Heart Rate. Use it to perform the Karvonen calculation. Use the box below to calculate your training zones.

An example looks like this: $220 - (\text{AGE}) 45 = 175$; $175 - (\text{RHR}) 68 = 107$; $107 \times 70\% = 75$; $75 + (\text{RHR}) 68 = 143$ (THR). Using this example, while training in your 70% heart rate training zone, you will attempt to maintain a minimum pulse of 143 beats per minute. Your 80% heart rate training zone provides a maximum pulse of 154 beats per minute. However, if you are a beginner, work at 60% intensity until these higher percentages can be performed while still able to carry on a conversation.

<p>Subtract your age from 220.</p>	220
<p>From this result subtract your Resting Heart Rate (RHR).</p>	$- \text{_____} \text{ minus your age}$
<p>Multiply this number by each of the following percentages and add your resting heart rate back in to determine your training zones.</p>	$= \text{_____}$
<p></p>	$- \text{_____} \text{ resting heart rate (RHR)}$
<p></p>	$= \text{_____} \times 60\% = \text{_____} + \text{_____} = \text{_____}$ <div style="text-align: right; margin-right: 50px;"> RHR Training Zone </div>
<p></p>	$= \text{_____} \times 70\% = \text{_____} + \text{_____} = \text{_____}$ <div style="text-align: right; margin-right: 50px;"> RHR Training Zone </div>
<p></p>	$= \text{_____} \times 80\% = \text{_____} + \text{_____} = \text{_____}$ <div style="text-align: right; margin-right: 50px;"> RHR Training Zone </div>
<p></p>	$= \text{_____} \times 90\% = \text{_____} + \text{_____} = \text{_____}$ <div style="text-align: right; margin-right: 50px;"> RHR Training Zone </div>