



PEAK CENTRE

FOR HUMAN PERFORMANCE

PEAK Centre- Personalized Training Zones

In this article we will discuss:

- What are training zones and why are they important?
- Common methods currently utilized to determine training zones

Training zones are an important way of making sure that your exercise/training is sectioned out into more manageable workouts. Each training zone has a specific purpose that will contribute to improvement of your overall fitness level. Take a look at your training schedule, and you will see terms like LSD, tempo, hills, and intervals – these all describe different types of workouts.

ZONE	DESCRIPTION	TIME	TYPE OF WORKOUT
ZONE 5	Max/VO ₂ Max	1-3 min Intervals	Intervals
ZONE 4	Hills	3-8 min Intervals	
ZONE 3	Threshold/Performance Threshold/Tempo	10-60 min Intervals	
ZONE 2	Pre-Threshold	1-3 hours	Continuous
ZONE 1	Base/LSD/Aerobic Threshold	3 hours +	

There are essentially 5 distinct training zones (see above), each with its' own set of parameters and purpose. Defining training zones is critical if proper and safe exercise/training is to be completed. All too often, training zones are either estimated or predicted, and not, measured and prescribed; the result is improper training, injury, and overall limited improvements. *Training time is too valuable to leave to chance!*



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Training Zones: What are they? What are they important?

Anyone with an exercise/training goal needs to train **often** enough; they have to train **long** enough; and they need to train **intense** enough to stimulate their body to improve. Just going out and running or cycling isn't the most effective or efficient way to get results; actually, it's a great way to become injured! Defined training zones are critical for proper improvement and development. Below are some common ways that people try to determine training zones, most of which are inaccurate:

Method	Description	Examples
Heart Rate Charts	A coloured chart typically found on health club treadmills, bikes, etc	
<p>These charts may look pretty, but they just are not accurate. It assumes that people of the same age have the same heart rate response and therefore the same max heart rate – thus, the same training zones. They also do not designate the difference between running, cycling, rowing, or swimming heart rate zones, all of which are different.</p>		
Predictive Equations	Taking a percentage of a persons estimated or measured max heart rate	<p>**220 – Age = Max Heart Rate** % of max heart rate is utilized to predict training zones</p>
<p>These equations are utilized in exercise equipment and also heart rate watches (when you enter in your birth date) to predict training zones. Unfortunately they make the same assumptions as the charts above, and therefore at not accurate.</p>		
% of VO ₂	Take a percentage of a persons measured or estimated VO ₂ Max	

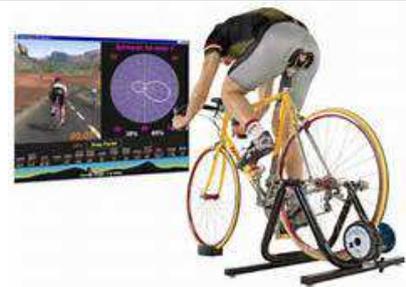


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Completed on its own by direct measurement (as in the picture above) or in a predictive assessment, like the beep test. VO₂ max tests on their own only provide you with a number from which percentages for training zones are **calculated/estimated**. Again, these training zones just are not accurate.

Functional Threshold Testing

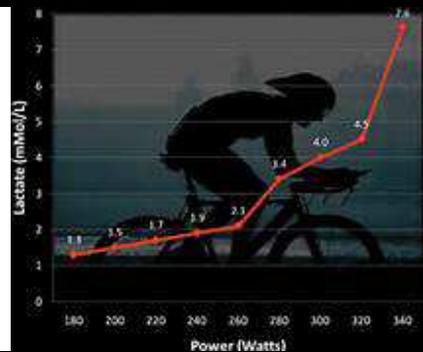
Running, cycling, swimming, or rowing as hard as you can for a prescribed time/distance (typically 20-60 min)



Completing a ride, run, cycle, or row for a designated amount of time or distance and measuring average pace or power. Unfortunately this process only yields 1 of the 5 training zones that are available and required. The other zones are **estimated/predicted** from this one measurement/result. Therefore this process is **not** accurate to determine all 5 training zones.

Lactate Measurements

A simple process whereby training zones are measured individually by completing a simple and progressive fitness evaluation



A specific and progressive exercise evaluation is completed to determine your **precise** and **individual** training zones, for the discipline you want to improve. Specialized equipment, specialized staff, and specialized protocols are utilized to accurately measure your body's response to progressive exercise. Your body's response provides the information to then detail your precise training zones for the sport/discipline (walking, running, cycling, etc). You can then utilize your pace/speed/heart rate watch properly by entering in your own personalized zones, for maximal results; **no more predictions or estimations!**

Properly measured and prescribed training zones makes every persons training safer, more efficient, more effective, and more individualized...whether you are part of a group, or training individually.

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Imagine being able to:

- *determine precisely* where your current training zones are
- utilize this information to *ensure* every workout is in line with your individual exercise/training goals
- turn your pace/heart rate watch into a *productive training tool* when utilized with proper and individual training zones
- *reassess and validate* your new and improved training zones after 8-12 weeks of training
- develop a *precise race plan* based upon your assessment results

In Summary:

Its simple...you are exercising/training to complete some very specific individualized goal. In order to reach this goal, you purchase the proper equipment (running shoes, bike, pace/heart rate watch, etc) **and** you need the proper and accurate zone information to assist you in reaching this goal. PEAK Centre has the specialized **equipment**, specialized **staff**, and specialized **protocols** to make that happen. If you want to exercise safely, know precisely at what heart rates, paces, speed, or power to exercise/train at, and want to track and validate your training and improvements over time, then completing a **PEAK Centre Assessment** will provide you with the information you require to make your training efficient and effective...no more wasted training/exercise time!



About the Author

Kevin Wilson is a Sport Scientist/Exercise Physiologist/Registered Kinesiologist, and co-owner of the PEAK Centre. For over 18 years he has worked with 1000's of endurance athletes to complete their first race, reach their personal bests, and win medals at the Olympics and World Championships. Utilizing the fitness analysis lab at PEAK Centre and completing thousands of assessments, Kevin has gained unique insight into endurance performance, aerobic profiles, and the requirements to assist any individual in reaching their goals.

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