

# PERTH INTEGRATED HEALTH CYCLING GROUP



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## REASONS TO TRAIN WITH HEART RATE THRESHOLDS

### Introduction

There is growing evidence that too many Cyclists are training beyond the capacity of their heart. The majority of people read articles about professional cyclists with cardiac conditions in their prime and while they mull over it – most quickly brush aside that it could happen to them.

Wrong.

It can happen and is happening to many cyclists. Having a heart or cardiac condition is often not shared at the café and during the bunch ride and most cyclists suspect that they may have a condition but often do nothing about it until it is too late. Is our sport so tough that we watch cyclists fall into barbwire fences at the Tour de France to only come up and carry on sprinting with blood everywhere – that makes us think that we have to ‘harden up Princesses’ to be regarded as a true cyclist?

I hope not – because many who have been trained this way over the past 4 decades are either quietly dealing with these conditions and regrettably a few have since died prematurely.

This article is not about scaring cyclists – it is about teaching cyclists that there is more to training than distance, speed, cadence, gradients and intervals. The medical journals already back up sufficient evidence of the importance of Heart rate training but this aspect is often ignore or simply misunderstood.

Let's work towards having more properly trained and coached cyclists and fitter ones who will last the journey and not die prematurely.



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## Tips for Heart Rate Training:

1. Firstly determine what your actual maximal heart rate is. Otherwise known as HRmax. By determining the true reading this then allows you to determine training zones by which you should train.
2. The so called “rule of thumb” max heart rate calculation which is subtracting your age from 220 cannot be further from being the most inaccurate method used. Imagine 3 people all 40 years of age. One is a cyclist, the other is a sedentary office worker who does not exercise and the third is a chain smoker. All the same age. Do you really think you will be creating for them a program based on this method of calculation?
3. Have it tested with the use of a proper Medical Ergometer. It is important that this testing is used on the same device and the medical fraternity in sports medicine understand and mostly have the same device which is the current agreed standard. It is important as the test-retest reliability for future calculations and progression measures have the same variables.
3. As a general rule I advocate that cyclists have their second HRmax testing done about 3 months after their first assessment. If they train properly in the methods of heart rate thresholds, the majority are very surprised and pleased with their results and they often have a revision of their zones which reflect the vigour and fitness of their heart. The next retest should be around 6 months after the second test and thereafter every six months. After all you are supposed to see your dentist every six months for your teeth. Won't you do the same for your heart?! As stated the zones may change over this period of time with the change of variable which could be at the time also due to lifestyle changes, fitness or the lack of it, dietary consideration as well as stress and fatigue .
4. When feeling under the weather try to drop your heart rate training zones by 15 to 20 percent. This will allow you to maintain fitness and also avoid mental fatigue during a down period of training. In cycling coaching – we use a specific formula for cyclists to measure so they can determine themselves if they need to have a variation in their training, when to cross train and when to rest specifically.



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5. Use heart rate zones to avoid over training. One should never train beyond the 90% capacity though there is gradual evidence that we can train, if and when fitter (which is the very crucial point here) to a slightly higher percentage. Once again this statement is generalised as everyone is specific and your discerning health professional and or cycling coach should be able to determine when you can progress through the zones. As a rule as a practitioner and coach I do not allow newer riders to excess 85% HRmax until I am satisfied that they have the proper biomechanics, techniques and gearing methods on their bike.

6. Years ago I wrote a very definitive article called: Why are there so many fat cyclists? That article is still be widely circulated and read and one of the hidden reasons why this is so when though some of these cyclists ride a lot is simply because they do not know at which HR zones that they can activate their metabolic system to burn fat. There are of course many more variables with this target group – diet and nutrition methods being another major variable here.

7. Check your recovery progress. If you are trying to determine if you have recovered from a tough cycle of training or fast ride and/or if you should do a hard workout that day, check your resting heart rate in the morning. If it is above a certain percentage higher than your average morning when you wake up, then your body is definitely telling you it's not ready to run hard or the your body could be fighting a cold. When the immune system is working too hard, you wake up with a higher heart rate than you would on normal days. This percentage is dependent of course on your HRmax reading.

8. When working towards the upper end of your heart rate targets, be smart. Instead of assuming that you will be able to hold 90 percent of your max heart rate for a whole ride whether it is a bunch ride, event or race try to be realistic and choose a percentage/heart beat per minute that will allow you to optimize your performance and progress effort to the finish. For example, try a 20 minute tempo and record your HRmax, HRaverage, and low heart rates. This is called conditioning and you are working towards building your heart muscles which takes an exponentially longer period to achieve the level of fitness that the rest of body does.

9. Be patient when you start your ride. There is NO sense in riding fast at the start of a ride as you need approximately 10 to 15 mins to properly warm up. There is also now conclusive evidence in sports medicine in cycling to say that cyclists should NOT do static stretches before



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their ride but rather ride to warm up. There is a two fold reason for this apart from muscle physiology for your body – it is also to allow your heart to work gradually towards the functional thresholds of the ride / event or race. If you start to fall below your heart rate zone, you don't need to sprint to raise it. Just pick the pace up slightly or there is a coaching method using gearing to help build it up.

10. What Heart Rate devices should you use? There is a myriad of devices and frankly you get what you pay as the accuracy and reliability should not be compromised with a sub standard device. Well known brands such as Garmin, Polar, Suunto feature well and for those who constantly complain about wearing a chest strap monitor – they may well wish to consider the new Mio Alpha watch where your HR is measured via light diodes from your wrist and it tells you constant readings through your activity.

11. HR Threshold training should NOT replace the other variables I described as training with terrain, elevations, distance, speed, cadence, gearing, positioning and techniques are equally important. A discerning cycling coach will be able to use HR thresholds with these variables and teach you how to ride towards a fitter and healthier heart

**For more information on Training with Heart Rate Thresholds check out our Summer Training Program for Cyclists. The next formal start of the course is the 18<sup>th</sup> March 2014 to coincide with Bikeweek 2014 and the link below also allows you to sign up for the course.**

Check it out here: <https://www.registernow.com.au/secure/Register.aspx?E=10528>

**For more information regarding doing a Heart Rate Threshold test for yourself please refer to:**  
<https://www.registernow.com.au/secure/Register.aspx?ID=11371>

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