

## Training Intensity Zones

We must first establish intensity zones. These zones will be used to target the level of effort for nearly every workout. Swimming with a HR monitor is tough. Riding and running with one is good but a few workouts you'll likely do without the monitor. If you are not going to train with a monitor then use section 1 to understand and recognize your zones. If you are going to train with a monitor then skip down to section 2, but look over section 1 so you can get to know the feeling behind the effort.

**Section 1** Without a heart rate monitor use this chart that is based on the rate of perceived effort or in simpler terms "how hard does it feel".

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
<b>RPE</b> Rate of Perceived Effort.	Warm up and recovery pace. <u>Talking is easy.</u>	Feels like you could "go all day" pace. <u>Conversations shorter but comfortable.</u>	Race Pace. <u>Minimal Talking, 1-2 word sentences</u>	Slight discomfort, could hold for 10 minutes. <u>Down to basic Grunts</u>	All out max! Could only hold for a few moments. <u>Nothing but wheezing</u>

**Section 2** (training with a heart rate monitor) Getting tested is best but the math can work.

If you know your aerobic threshold (as the result of an accurate, scientific test) go to option C.

If you know your maximum heart rate (as the result of an accurate, scientific test) go to option B.

If all you have to go by is your age (that's fine) use option A below.

### **Option A**

You will need to do a bit of math to find the correct beats per minute for each zone. **THIS IS NOT DIFFICULT** but requires a couple of days to establish: Take your pulse every morning for 60 seconds- before you get out of bed. Take it for 5 mornings and find the average. This is your resting heart rate, once you have it you're ready to plug it into this simple math equation.

Subtract your age from 220 (for males) or 226 (for females).

From this number subtract your resting heart rate (RHR).

Multiply the resulting number (know as your Heart Rate Reserve, HRR) by the percentages in each zone, then add the resting heart rate (RHR) back on to determine the boundaries for each zone.

Example: 34 year old male with a resting heart rate of 55:

$$220-34 \text{ (age)} = 186$$

$$186-55 \text{ (RHR)} = 131 \text{ (HRR)}$$

$$131 \times .50 = 65 + 55 \text{ (RHR)} = 120 \text{ beats per min, bottom of zone 1}$$

$$131 \times .65 = 85 + 55 \text{ (RHR)} = 140 \text{ beats per min, top of zone 1, bottom of zone 2}$$

$$131 \times .80 = 105 + 55 \text{ (RHR)} = 160 \text{ beats per min, top of zone 2.... and so on.}$$

### **Option B**

Take your maximum (only if it has been established accurately via a scientific test) and multiply it by the percentages in each zone.

### **Option C**

Take your aerobic threshold (only if it has been established accurately via a scientific test) and place it in the chart as the top of zone 3 & subtract 2% for the bottom of Z3. Subtract 7% for top of Zone 2, subtract 17% for the bottom of Zone 2 & the top of Zone 1, subtract 37% for the bottom of Zone 1. Add 5% of threshold to get the top of Zone 4 & bottom of Z5 and add 13% to get the top of Z5.

Write your results into this chart to create your own personalized intensity zones

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Percent of max Heart Rate	50% -65%	65% -80%	85% -87%	87% -92%	92% -100%
Beats per minute.					