

Zone	Description, Purpose, and Application	Period	Breathing Rate	Typical Duration	Blood Lactate Level
1	Maintain feel, build low-end base fitness, burn fat, promote recovery through active movement. Recovery rides fall right into the Z1 effort range. This is also the intensity often used while recovering from efforts in the Z3-Z5 range. This is the intensity held for ultra long endurance events, and the intensity a beginner would maintain for a full Ironman.	All	Easy / Comfortable	30min+	<1.5 mmol
2	Develop aerobic fitness and ability to burn fat stores. Your ability to sustain harder efforts often comes down to how large your base is. Base building workouts should build to be at least as long as race distance, if not longer for anything shorter than a full Ironman. Base building workouts tend to fall right in the Z2 effort range, but very long workouts may spend a fair amount of time in Z1. This is the most common workout used by the multisport athlete. This is also the approx intensity held during an Ironman for experienced athletes.	All	Conversational	1 - 16hrs	~1.3 - 2.4 mmol
3	Develop sustained 'pace' and upper aerobic fitness. Key intensity for half ironman preparation. Recommend limited training in the lower to middle of Z3 during the early base building phase as it does not provide as good a training stimulus as Z4 or Z5, but still takes a while to recovery from. Intervals may be continuous 90min, or broken into shorter segments of typically 10- 30min in duration. The upper end of Zone 3 is referred to "sweet spot" and is just a little easier than 'threshold' (or FTP). This is the approx intensity held during a half ironman event.	Build, Race Specific	Controlled, but can only speak in short sentences	30min - 3hr	~2.2 - 4 mmol
4	Develop threshold endurance and strength. Typically at or just above blood lactate threshold (4mmol). Requires extensive recovery between intervals. Athlete who spend too much time training here are often susceptible to overtraining, especially if an adequate aerobic base is not established first. The approximate intensity held during a Sprint Tri.	Base, Build, Race Specific	Labored	20min-60min	~3.8 - 6 mmol
5	Develop power at an anaerobic level. Efforts are a matter of seconds to maybe a couple minutes, followed by long recoveries. Limited value in general to the multisport athlete, though elite sprint distance athletes would find value in VO2 rides to develop their ability to attack and/or surge.	Base, Race	Very labored	10sec-20 min	~5+ mmol