

Ironman or Madman? The Physiological Demands and Consequences of Extreme Ironman, Triathlon and Ultra-endurance Training and Racing.

Michael Hamlin¹

1. Lincoln University, Canterbury, New Zealand

Humans are truly amazing creatures- what other animal pushes themselves to physical and mental exhaustion, endangering their very existence, for their own mere pleasure or satisfaction? What other animal trains their body for hours a day risking injury and illness, just to finish a race? These 'freaks of nature' who choose to push themselves to the utmost limits of their body's abilities include triathletes, ironmen and ultra-endurance athletes. So just how far do these athletes push themselves? It's not uncommon for such athletes to drive their bodies that hard that they become overtrained; a clinical term referring to a chronic mal-adaptation to training and racing where, in some cases, the body starts to break down its own proteins. Approximately 65% of elite runners and about 40% of elite triathletes will suffer from this condition at some stage of their careers. In this condition, normal hormonal levels are disturbed as well as appetite, sleep, and of course training and performance. During their normal heavy and intense training and racing, many of these athletes also suffer acute problems such as dehydration and digestive impairment which can have significant effects on their performance, but more importantly can also endanger their health. Typically these athletes are spending up to 5 hours per day exercising at very high levels close to or above their lactate thresholds. What is it about these athletes that make them different? Some would suggest it's the hours and hours of training that eventually improves the metabolic efficiency of the working muscles that gives these athletes the edge over their competitors; others think that such athletes have different brains that allow them to ignore warning signals from the body that would normally cause others to stop, but allows these athletes to continue to push themselves and ultimately improve. In this presentation I will take you through a typical training week for an elite triathlete leading up to a major event. We will discover just how hard such athletes push themselves in training and racing and we will look at some of the consequences of this very tough lifestyle.