



Coach-Athlete Q&A

A look at some coach-replies to common questions by topic.

Q: Coach.....47:16 for five-miles on hilly terrain (all undulating, no flats, no more that .5 mile inclines or declines). I used a target zone of 145-160 and have never applied so much self restraint on a run - I felt capable of much more at any given time. I was at the high end for most of the run. Unfortunately, I am still learning how to use the HRM and I just added this run's information to that of the last three weeks, so no specifics about this morning. Should this have felt slow?
A.W.

A: Your dilemma is one of the most common for our new athletes. Let me try to explain our rationale for the lower heart rate zones. The lower aerobic type training is "Key" for building aerobic and metabolic efficiency. For endurance athletes our goal is to get the most (pace/mile, wattage, swim speed, etc) out of the least effort (heart rate) which allows us to continue for longer distances.

With that being said, consider that we primarily use two types of fuel: Carb (in the form of muscle glycogen) and Fat. We have a limited amount of Carbs (usually about 2000 - 2500kcal) and our fat store, even in the leanest athletes are virtually unlimited. When we train at higher heart rates our bodies will draw from a fuel source that is readily available (Carbs) and very little fuel is derived from Fat. Most people will train in a zone of perceived exertion that most likely will be too high to effectively use fat for the "primary" fuel source.

So how do we get our bodies to use more fat for fuel and save the limited carbs we have available? You guessed it, train our bodies at lower heart rates to develop the fuel delivery system.

Now this is where most people say, "That's great for everyone else, but I would be almost walking if I train at THAT LOW of a heart rate. It does require most people to slow down to a pace that they have seldom trained. But here is what happens. Let's say your normally run at 155-160bpm and that equates to a 8:30/mile pace and when you race a 10k your heart rate is 170 and that produces a 6:45 pace. By training your aerobic system (how your body delivers the oxygen) and metabolic system (how your body uses fuel) at lower rates (let say 138-148) your pace will INITIALLY be slower, let say 9:30 pace, but as your body adapts so will you pace.

Over time your pace will increase at the EXACT same heart rate, so now you can run that same 8:30 pace at 145 vs 160 as before. So what you might say, well now when you crank up the heart rate at the 10k again and your heart rate is 170+, the pace would now be 6:15 or faster (which is our goal right?).

STUDIO



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This equation really become the key when you start doing longer distance races (Olympic on up..) because you will run out of fuel if you are continuing to use carbs as the primary fuel source. It's the toughest part of the training because most triathletes want to go as hard as they can, thinking "harder is better". While certain sessions in your program are speed/intensity oriented, you have to have the foundation of efficiency to build on first. It's like putting icing on a cake, you have to bake the cake first then add the icing later.