



## Coach-Athlete Q&A

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

**Q:** I just finished reading an article in the July issue  
>of Men's Journal on a bike training regimen recommended  
>by Lance Armstrong's coach Chris Carmichael. It seems  
>to be similar to your program in that a lot of the  
>workouts are done at relatively low heart rates. Which  
>prompts this Saturday morning question:  
>  
>Having seen all the times and HR numbers I keep  
>sending you, do you think my running and cycling  
>progress is being held back by doing too much of my  
>training at HRs that are too high?  
>  
>S.B.

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**A:** Hey SB.....Chris Carmichael's own website shows Lance's Spring preparation and noted that his hr on his long endurance rides is only 124-128bpm.....which is probably the type of thing that prompts your question. However, realize that we're training 4(!) systems in the body.....as is Lance.....1-Cardiovascular, 2-muscular, 3-neuro-muscular, 4-metabolic.

Here's the catch.....with a healthy dose of genetics on his side, Lance can train 3 of those 4 systems at once.

For example, what the article may NOT have said is that at those low hr's.....his average speed for a 5+hour ride is over 32k/hour.....that's over 20mph at a hr that's BELOW 130. So he is training his neuro-muscular system (ie: spinning ALOT of revolutions fluidly for 5+hrs/day). He is training his muscular system (muscular endurance of 5+ hours turning the cranks). And he is able to do each while not allowing his hr to climb above 130.....which trains the metabolic system to opt for more of a higher % of fat usage.

We mere mortals (unlike Lance) are training at higher hr's to achieve the same relative muscular intensity.

Now, you say, "but doesn't this **DE-train** us, metabolically, where lower is better?" [in order to use a higher % of fat] You are absolutely right.

But that's where we go back to our target goals and review exactly WHAT it is we're training for. Your racing schedule calls for 5 sprints and ONE Olympic distance race. So your events are from 1:25 to 2:50 long, right? Not nearly as "metabolically demanding" as Lance's 5-6hour Tour stages for 28 days straight.

So given your current 'efficiency level' on the bike.....we opt for shorter yet faster sessions to match your race goals.

Know, though, that your **BASE** phase of training.....the Jan-March training **DOES** closely mimic this type of lower hr, longer session training. You came into the program in April.....just as the races, [and the need for race-prep type training] comes up.

**Sonni**