



Interval Training

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This week we will discuss Interval Training and how you can use it to boost your performance. First, we will discuss the energy systems used in running. Depending on the time/distance of your run and the intensity of your run, you will be using three separate energy systems. Wikipedia defines the energy systems as: (http://en.wikipedia.org/wiki/Energy_systems)

- **ATP-PC System (Phosphagen System)** - This system is used only for very short durations of up to 10 seconds. This is the primary system behind very short, powerful movements like a golf swing or a 100 m sprint.
- **Anaerobic System (Lactic Acid System)** - Predominates in supplying energy for exercises lasting less than 2 minutes. An example of an activity of the intensity and duration that this system works under would be a 400 m sprint.
- **Aerobic System** - This is the long duration energy system. By 5 minutes of exercise the O₂ system is clearly the dominant system. In a 1 km run, this system is already providing approximately half the energy; in a [marathon](#) run it provides 98% or more.

Your body will use each of the energy systems during your Crazylegs run, but one system will predominate based on the immediate needs. For instance, if you decide to run up Bascom Hill, you will be tapping into your anaerobic system as your primary energy system. A sprint across the finish line will force your ATP-PC system to supply your energy. For most of the race you will be using your aerobic system.

So how do you train for each system? Interval training. Interval training is simply alternating bursts of intense activity with intervals of lighter activity (WebMD). If you do your training on cardio equipment you may perform high intensity work for :30- 2 minutes followed by 1-3 minutes of low intensity training. You can cycle through these intervals for 30 minutes to really improve your stamina. To improve your ATP-PC system you may try hill sprints or find a stairwell race up a flight of steps. Don't forget to rest though! An easy guide to follow for intervals is to rest (or low level activity) 30 seconds for every 10 seconds of high intensity exercise.

This is a very brief description of interval training. To learn more, or to get a sample workout, try this link: <http://www.coreperformance.com/knowledge/training/energy-system-development.html>

