

by Steve Thordarson
USA Cycling, Inc. Category 1 Coach

Getting Ready - Intervals

A normal winter activity for most cyclists this time of year is the 'joy' of riding their bicycle on a stationary trainer. Maybe you ride in the comfort of your home or at a central location with friends or teammates. Hours are spent pedaling, perhaps to music, a video or DVD of a bike race. You plug away putting in the base miles to prepare your body for the season of warmer weather and the outdoor riding you look forward to. Some of those happy hours will be spent just turning over the pedals. Some of those hours will be spent pushing your limits to improve your speed and power. Every competitive cyclist knows the pain of doing hard intervals.

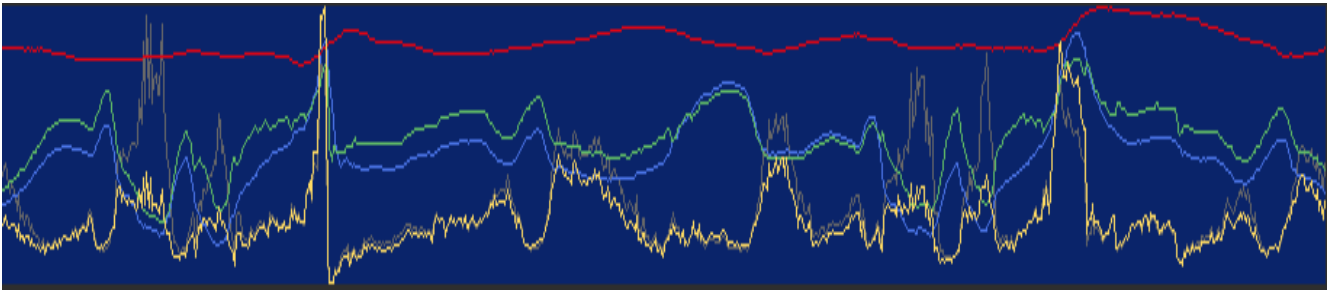
If you are lucky, you do your training on a device that actually gives you more to do or think about than just turning the pedals. There are a number of great training systems available these days that not only make training much more interesting, but provide many details on the athlete's progress. A growing number of companies make trainers or ergometers that allow the athlete to monitor their progress in a very scientific method. They also are more helpful than just riding in the basement while watching a video of last year's Tour.

While these systems provide you with very useful information, they don't pedal the bicycle for you. If you don't train correctly, the technology won't help you get any better when you get out there in the real world. The equipment should enable the athlete, not control them. Equipment is a nice extra, but you don't have to own all that technology in order to train the right way. Great cyclists like Eddy Merckx didn't have the same scientific equipment we have, but they had the right methods. The technology just gives you the ability to improve on the right methods.

Most cyclists who take the sport of cycling seriously use a bicycle computer of some sort. They come in an almost endless variety from basic speedometers to power meters to GPS units that show you how lost you are. Whether you have a basic model or the most sophisticated design available, you can use your computer to help you to train more effectively. If you are like Eddy Merckx, who didn't have a computer of any kind, you can still train correctly. The secret is in the consistency and execution of the efforts.

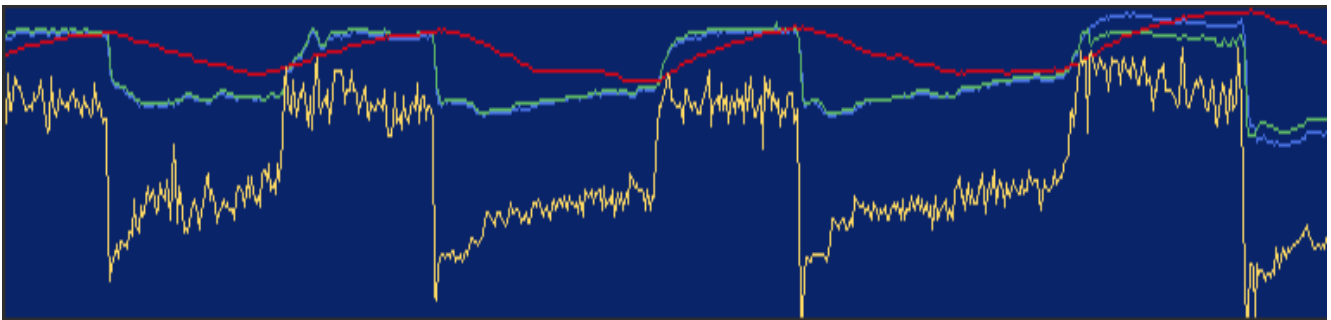
Most training plans have the athlete do training sessions that vary between easy and hard efforts. The individual days of training are also patterned in this way; hard one day, easy another. The athlete is stressed by the level of training and then recovers in preparation for the next difficult session. Any pattern where there is repeated work followed by periods of recovery is a form of interval training. It's called interval training because there is an interval of work, followed by an interval of recovery, and so on. The question that comes up most often is; am I doing these intervals correctly?

As I mentioned, there are lots of training systems that give you all the information you could possibly want. Most of them also give you software that helps to analyze training efforts. This can make it a simpler task to determine if the training is being done correctly. Below are two examples of training sessions. One is done with a definite goal and structure and one is not.



In this first training session, the athlete has made a number of random hard efforts. There are a couple of near maximal surges that show a high power output, but they are not structured at all. Even though the athlete may be working hard to increase their power output, there is no continued effort or pattern of recovery to prepare for another effort. The hard efforts have no set pattern or duration to them at all. In short, this athlete is just getting tired.

In this second example the athlete is following a structured pattern of sustained effort and sufficient recovery to prepare for the next effort. The pattern is very obvious and duration of each effort is clear. One important point many cyclists miss is proper execution. You may have a training plan that says to do eight efforts of three minutes with an equal amount of recovery between each effort. However, if by the third effort you can no longer reach the required heart rate, speed or power out, you are no longer doing intervals. You are just getting tired.



In the second example shown here, the athlete shows a good ability for hitting a specified pace and keeping it there for the entire length of the interval. Consistency is extremely important with this kind of training because the goal is to increase speed, power and endurance. Short, high intensity efforts can be helpful for improving your sprint, but if you don't have the stamina to get to the finish in a good position, your sprint will be meaningless. In order to keep up with the pack, you need the improvements interval training can provide. This doesn't just apply to road or criterium racers. Triathletes, velodrome racers and time trialers spend most of the time in their competitions racing at a steady, even pace. One of the best ways to develop that steady state ability is to do interval training.

Training is always progressive in nature, so the goal is to progress from shorter efforts to longer, more difficult efforts. You don't need a computer to tell you when you are working hard. The training pattern can be as basic as pedaling in the big chainring and a middle cog for two minutes.

Follow the two minutes effort with a sufficient period of recovery and then repeat the two minutes in the big chainring. As time goes by the body adapts and the length and intensity of the interval increases. The secret to doing the interval correctly is making sure the efforts are as much the same as possible each time. Not just in their length, but their level of intensity. If you have chosen to ride for one half mile in the 53 tooth chainring and the 17 tooth cog, then make each interval the same distance.

Again, the important thing to keep in mind is the execution of the effort. If you are attempting to do eight intervals over a set time or distance and at a given speed, ride the intervals as close to the same as possible. When you are no longer able to perform them correctly, stop. Any kind of training done badly will not be of help. Training should be progressive, but if you can't complete the current sessions, you can't progress.

So when you are down there in the basement getting ready for the warmth of spring, focus some attention on your training technique and make all your efforts as consistent as possible.