

80-80 What Watts?

By Sally Edwards, MA, MBA
Director of Training, CycleOps
President, The Sally Edwards Company

Did you enjoy your first few rides with your new CycleOps power meter? For most of us, those first few rides are discovery rides: about the tool and about yourself.

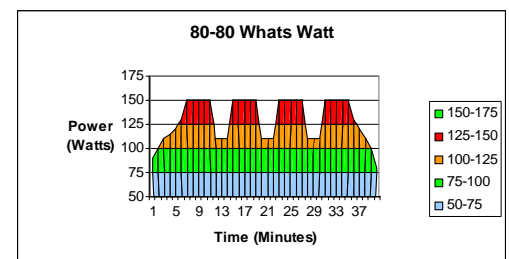
You are ready to move into the second phase after discovery, which is gathering data. By gathering data on your power—or watt—output, you get concrete insight into your current level of bike fitness. And you get key data to use in comparing your fitness and your training program down the road, so to speak.

There are lots of different ways to start, but I recommend beginning with some basic benchmarking rides. These are rides you can do right now to obtain baseline numbers that you can use throughout your riding season.

The first technique to use is “steady state” riding. This is a technique that measures your power output while you hold a steady intensity level and keep all other factors constant. Keeping everything constant isn’t easy when you ride outdoors, because of changes in heat, humidity, wind, etc. And, whether inside or outside, it’s also essential to keep your internal factors constant: your hydration, nutrition, sleep, stress, and other factors that affect performance.

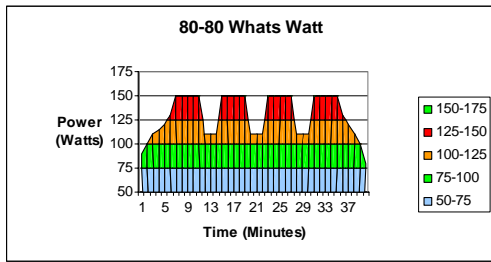
In the Steady State Power Fitness Test, you measure power while keeping two other key factors constant: cadence and heart rate. You perform this power fitness test at an aerobic intensity for fit cyclists—80% of maximum heart rate with a cadence of 80 rpms. The test takes just 5 minutes and, when you are done, it gives you what you need, baseline data on your current aerobic steady state power.

Here’s an example. Paul Camerer, an 88-year-old, fit triathlete, recently took the Steady State Power Fitness Test. Paul’s 5-minute average power output at 80% of maximum heart rate and 80 rpm cadence was 158 watts. After training for 3 months to improve his power, Paul took the test again, and the results showed that his training program was working, because his power improved to 167 watts.



The Steady State Power Fitness Test is just one measure of aerobic endurance conditioning. There are other fitness tests, too. You will have the chance to take those tests in subsequent articles. And, together these power fitness tests can give you a comprehensive “Power Profile”, a summary of your overall cycling power condition at any given time.

Have fun and get powerful!
Sally



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The Steady State Power Fitness Test

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Description: This is an assessment of your current level of fitness blended with a really high energy ride. The goal is to assess your average power output over a five-minute steady state ride. The intensity level is hard. The purpose is to assess if you are gaining power on the bike by gathering the data and letting the numbers answer the question. If you are over-trained, strained, or experiencing training monotony, it will show up in the numbers every time. Since the Steady State Power Fitness Test is brief, the ride plan calls for repeating this five-minute test 2-4 times. The numbers become even richer when you can look at average power output over time.

Ride Format: Begin with an easy warm up. You need to know your maximum heart rate or your threshold heart rate. If you have not measured either of these anchor points for the training zones, I'd recommend reading the protocol at www.heartzones.com and referring to the resources section on that site. After the warm-up, slowly increase your effort to raise your heart rate to 80% of maximum or 90% of your threshold heart rate. Maintain a constant cadence of 80 rpm. For the five-minute assessment period, measure average power in watts. Repeat this protocol 2-4 times, each time tracking the average power output of the ride. Take a 2-3 minute rest or until your heart rate drops below 60% of maximum before beginning the next assessment.

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| Event | Description | Duration (min) | Elapsed Time (min) |
|----------------------------------|--|----------------------------|---------------------|
| Warm-Up | Easy pedaling at 60-80 RPM+ | 5 | 5 |
| Repeat this assessment 2-4 times | ➤ Increase intensity to 80% of maximum heart rate at 80 rpm for 5 minutes. | 5 | 10-20 |
| | ➤ Record average watts | | |
| | Recover to 60% maximum heart rate | ~2-3 min. | |
| Cool Down | Easy pedaling at 60-70 rpm | 3-5 | 5 |
| | | Total Elapsed Time: | 20-30minutes |

Challenge: The challenge in the *80-80 What Watts?* is to ride this assessment monthly, like the first Monday of every month. Record the data and then compare it over the next 12 months to see the direction of change. Are average watts improving or getting worse? Your challenge is to design a

training plan or to hire a cycling coach to increase your average power output while holding constant the intensity, as measured by heart rate and cadence.