

The Different Types of Cycling Workouts and How They Boost Fitness



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Although routines are an amazing way to optimize your day-to-day (taco Tuesdays, anyone?), you shouldn't rely on them in your cycling if you're looking to improve your [performance](#), stay healthy, and keep your riding fun. No matter your goals, recycling

the same bike workout day after day is a recipe for plateauing performance (at best)—or worse, burnout or [injury](#).

To stay engaged and fit, variety is key. “You need a contrast between [hard days](#) and [easy days](#) to get your body to adapt. Stress plus rest equals adaptation,” says USA Cycling certified CTS coach [Adam Pulford](#). What’s more, changing the way you approach your hard days helps you make the most of your precious time.

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Not sure exactly how to mix things up? Here, we break down the different types of cycling workouts you’re likely to see on a [training plan](#), including how they’re structured, why you’d do them, and a sample workout for each one.

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Before you dive in, it’s a good idea to determine your [functional threshold power \(FTP\)](#), the average power you can sustain for a one-hour effort. Once you have that number, you can use it to calculate all your [power zones](#). But if you don’t have a [power meter](#), or numbers stress you out, don’t sweat it. You can also use

your rate of perceived exertion (RPE) to gauge how hard to go in any given workout.

Recovery Rides

A [recovery ride](#) is an easy 30- to 60-minute spin where you can easily hold a conversation and you're barely breaking a sweat. You'd be in zone 1, or at a rate of perceived exertion (RPE) of 2 to 4 out of 10.

Whether you're riding to the park with your kiddo or to the coffee shop with friends, the goal is just to move your legs and [have fun](#) with zero pressure to perform. "You should feel better coming off the bike than when you jumped on," says Pulford.

Benefits of Active Recovery Rides

Active recovery rides increase blood flow to your legs to help reduce the [inflammation](#) (and the [soreness](#) that comes along with it) from an intense workout without putting extra strain on your muscles, says Pulford. As the name suggests, these easy days help you recover from your hard days.

Riding here is also great for your [mental health](#), says Pulford. Because you don't need to worry about your watts, [heart rate](#), pace, or distance, you're free to enjoy the scenery if you're outdoors, or your favorite Netflix series if you're on the [trainer](#).

Best for...

After an intense effort (a race, [leg day](#) at the gym, or an [interval session](#)) so you can hit your training hard again the next day.

Sample Recovery Workout: Spin easy for 30-60 minutes in zone 1.

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Endurance

[Endurance rides](#) are longer rides at a consistent, relatively low-intensity pace where you could stay relatively comfortable for hours. If you train with power, you're targeting zone 2, which translates to an RPE of 4 to 5 out of 10. "It's an effort you can sustain day after day," says four-time Olympian, coach, and Zwift workout builder Kristin Armstrong.

A typical endurance ride will be one to five hours, or potentially even more, depending on your goals. While a track cyclist may not need more than a three-hour ride, the athlete preparing for a 200-mile (or more) [gravel event](#) will probably benefit from a few eight-hour days in the saddle.

Benefits of Endurance Rides

Endurance rides build your [aerobic capacity](#) in a few important ways. For one thing, they boost your vascularity, or the number of capillaries that can deliver oxygen-rich blood to your [muscles](#). They also promote the production of [mitochondria](#) responsible for giving your cells energy, and they teach you to use fat as a fuel source.

Best for...

Athletes preparing for longer events like [century rides](#), long-course triathlons, and multi-day events, though everyone can benefit from this type of cycling workout.

Sample Endurance Workout: Ride for 90 minutes to 3 hours, maintaining a steady effort in zone 2.

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Tempo

[Tempo rides](#) are long intervals that feel “hard but sustainable,” as you begin to breathe harder and [fatigue](#) starts to accumulate in your muscles, says cycling coach and physical therapist [Kur Sohn of Velo Fit Physical Therapy](#).

These rides target zone 3, or an RPE of about 6 out of 10. A typical session might be two to three 10-minute efforts with five minutes of rest in between, or as many as three 30-minute efforts broken up with ten minutes of rest, flanked by a [warmup](#) and a cooldown.

Benefits of Tempo Rides

Tempo rides increase your [lactate threshold](#), aerobic capacity, and your ability to store carbohydrates. While these rides can be a great way to build fitness without beating your body up, Sohn cautions riders not to spend too much time in what many consider a “gray zone.”

Spending too much time in zone 3 can lead to burnout or stagnation; the effort isn't easy enough to ensure you have the energy you need to go hard on your more challenging days but isn't quite hard enough to elicit the adaptations you're looking for, says Sohn.

Best for...

Tempo rides are great for teaching your body to sustain “race pace” efforts for events like cyclocross, road racing, and longer criterium races.

Sample Tempo Workout: After warming up for 10-15 minutes, perform 2, 20-minute intervals in zone 3 with 8-10 minutes of easy recovery in between. Cool down for 5-15 minutes.

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Threshold

A threshold ride includes zone 4 [intervals](#) that feel uncomfortably hard. As in, you'd only be able to speak a few words at a time, if you were talking at all, and you'd be at 7 or 8 out of 10 on the RPE scale.

Slightly harder and shorter than tempo intervals, each threshold interval lasts anywhere from five to 20 minutes. Recovery time between intervals can vary quite a bit, but a 2:1 ratio of work to rest is generally a good starting point.

Threshold efforts force your body to produce lactate faster than you can clear it—which is why they spike your [heart rate](#) and induce much heavier breathing.

Benefits of Threshold Rides

At a physiological level, “you’re trying to improve your ability to shuttle lactate away from your muscles so it can be oxidized to produce energy,” says Armstrong. With repeated practice, threshold workouts raise your lactate threshold, or the point where you start tapping into your [anaerobic](#) energy system, along with your ability to produce more power without exerting more effort.

Threshold workouts are also great for your mind, says USA Cycling certified coach and skills instructor [Patrick Carey](#), of Speed Science Coaching. “As your zone 4 intervals get longer, athletes build confidence in their ability to suffer for sustained periods of time, which is exactly what you’ll need at the end of a hard ride.”

Best for...

Threshold rides can do wonders for boosting literally anyone’s fitness. But if we had to pick a few scenarios where they’re extra helpful, those would be events like time trials, [centuries](#), and [gravel races](#), where you’re pedaling at a relatively steady pace for a sustained period of time.

Sample Threshold Workout: After warming up for 10 to 20 minutes, complete 3, 10-minute zone 4 intervals followed by 5 minutes of easy recovery. Cool down for 5-15 minutes.

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VO2 Max

[VO2 max](#) training forces your body to work in the absence of sufficient oxygen. This is where your body starts to lean on anaerobic respiration to send energy to your muscles—which is a fancy way of saying these intervals hurt. “We’re just below, if not at, the ‘barf point’,” says Pulford.

A typical VO2 max workout features zone 5 efforts (or an RPE of 9 out of 10) that take 90 seconds to five minutes, with a work to rest ratio of 1:1 to 1:5. Because of the [high intensity](#), you’d spend no more than more than 15 to 25 minutes of your entire workout here.

The key to nailing these workouts is finding an effort level you can reproduce on every repeat. If you don’t nail your [pacing](#) the first few times you try this workout, consider it a learning experience, not a failure. “There’s a learning curve to it,” says Armstrong.

Benefits of VO2 Max Rides

“You’re developing anaerobic capacity—your ability to work above threshold before you [fatigue](#),” says Pulford. These spicy workouts

also hone your ability to create short, explosive bursts of power over and over.

At the same time, VO2 max sessions offer many of the same benefits of endurance workouts—in a fraction of the time, says Sohn.

Best for...

You'll get a lot of bang for your buck by adding VO2 max intervals to your routine in the final training block before you taper for a race, regardless of the distance. Once you've built a solid foundation, "this is like a magical workout," says Armstrong.

These efforts also translate especially well to anything that requires repeated short, intense efforts, such as sprinting out of [corners](#), climbing up short, punchy hills, or going with an attack, as you would mountain biking, [cyclocross](#), and criterium racing.

Sample VO2 Max Workout: After warming up for 10-20 minutes, perform 5, 3-minute zone 5 intervals with 3 minutes of easy recovery in between. Cool down for 5-15 minutes.

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Anaerobic

Anaerobic rides feature [intervals](#) that are as intense as they are brief, separated by long periods of rest. And by long periods of rest we mean a work-to-rest ratio that generally sits at 1:3 to 1:6, and sometimes even more rest than that. A typical [anaerobic](#)

[workout](#) might include several 30-second all-out sprints separated by up to 20 minutes of recovery, says cycling coach, exercise physiologist, and former world champion [Kim Geist](#).

You should be in zone 6 during your anaerobic efforts or at an RPE of 10 out of 10. Otherwise, shoot for the absolute hardest effort you can hold for the duration of the interval and every subsequent interval. Anaerobic intervals are punishing, but your total time in this zone won't be more than three to six minutes over the course of an entire workout.

Benefits of Anaerobic Rides

By forcing your body to work hard with insufficient oxygen, anaerobic sessions help build your tolerance for lactate buildup. These high-octane intervals prepare you for courses where rapid undulations in terrain and [intensity](#) force you to work incredibly hard for short periods of time.

Best for...

Anaerobic intervals translate particularly well into race-day performance for anyone who needs to repeatedly crank the intensity way up for short periods of time. That might look like [sprinting](#) out of a corner dozens of times during a cyclocross race or scaling a sharp incline on a mountain bike.

That said, going hard for short periods improves your mechanical efficiency and can keep your training from getting monotonous—which can benefit anyone, says Sohn.

Sample Anaerobic Workout: After warming up for 20 minutes, complete 6, 1-minute sprints with 6 minutes of rest between each effort. Finish with a cool-down of 5-15 minutes.

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Cycling Workouts Outside of Zone Training

If you don't generally train with [power](#) or [heart rate](#)—or you just need a mental break or flexibility—you can add other types of cycling workouts to your routine to get stronger on [climbs](#), power your [pedal stroke](#), and help with mechanics:

Hill Repeats

[Hill repeats](#) are exactly what they sound like—climbing a hill and descending it multiple times. And while they might sound monotonous (and potentially brutal), they're an excellent way to build stamina, power, and [mental toughness](#). They're especially great for those days when you want to get an intense workout in without having to stay mentally focused on the task; if the hill is steep enough, you won't have any choice but to crank up the intensity.

To do them, after warming up, find a hill that takes anywhere from two to 20 minutes to ascend, and do your best to maintain even pacing for each repeat. Generally speaking, the longer the climb, the less intense your effort will be, and the fewer repeats you'll complete.

For shorter climbs (two to five minutes), shoot for five to eight repeats. For longer climbs (12 to 20 minutes), aim for two to five repeats. Especially for harder efforts, take your time recovering; Carey says he encourages riders to ride around in circles at the base of the climb for as long as it takes to fully recover.

These are great to include in your training all year long, but most cyclists will benefit from cranking up the intensity and dialing back the volume in the final build toward their A-race.

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Cadence Drills

[Cadence drills](#) are a relatively low-intensity way to improve your [efficiency](#) and power on the bike. Cadence, also known as revolutions per minute (rpm) is the number of times your pedal turns over per minute.

When you increase your cadence for a short period of time, recover, and repeat, over and over, you develop neuromuscular control, [muscular endurance](#), and reduce the presence of “dead spots” (areas where you’re not producing consistent power)—all of which result in smoother pedaling and more effective power transfer.

A cadence drill workout might look like alternating between a minute at 100 rpm and a minute at 90 rpm at an endurance or tempo effort for 10 minutes, pedaling easy for three to five minutes, and repeating that cycle two to three times.

Cadence drills are a great addition to your early season workouts, when you're [building your base](#).

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- [Cadence Drills Can Better Your Rides](#)

Unstructured Intervals

Unstructured intervals are an excellent way to get your [heart rate](#) up and add some intensity to your workout when you don't want to worry about your metrics or you want to include a social ride in your training.

An unstructured workout might look like finding a course with lots of rolling hills and focusing on going hard on the climbs or going out on a [group ride](#) or with friends. Include these in your training anytime you need a little spontaneity (or forgot to charge your bike computer).