8 Ways You’re Hurting Your Back—and How to Avoid the Aches

CYCLING IS NOTORIOUSLY TOUGH ON THE BACK. THESE TIPS HELP YOU EASE DISCOMFORT FOR PAIN-FREE RIDES.

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One of cycling’s major draws is it’s a low-impact activity, which often translates to less pain and fewer injuries than high-impact workouts like running. Still, there’s always a risk of pain with cycling—and for many, it strikes in the back.

Research shows that the majority (51.5 percent) of cycling-related injuries stem from repetitive damage over a longer period, also known as overuse. Of those overuse
At best, an achy back can make your rides less enjoyable, and at worse, it can kept you from riding entirely. The fix could be as simple as adjusting your bike fit and sprinkling a few exercises into your weekly routine. Or, you may need a multi-pronged approach.

To help you figure out what to do, experts share common mistakes that can lead to back pain while cycling, plus advice for banishing pain for good.

1. Your Seat Is Not Adjusted Correctly

If your saddle is in the wrong position, you may feel it in your back, especially if the saddle is too high. If the saddle is too high, your leg may overextend at the bottom of the pedal stroke. When this happens, your hips may start rocking from side to side as you reach your leg further downward. “Because of the rocking in your pelvis, you’re not stabilizing as well with your torso, and that can cause some pain in the back,” says Rachel Andrews, CPT, a USA Cycling-certified coach in Rochester, New York.
To check your saddle height, hop on your bike and pedal slowly. “You want a slight bend in your knee when your foot’s in the bottom or six o’clock position of a pedal stroke,” Andrews says. If your leg is straight, drop your saddle lower. If your leg is bent more than that, bump up the saddle height.

While you're at it, note whether your knee is over the ball of your foot when your foot reaches the three o’clock position (which is where many riders, especially newer cyclists will want it), Andrews says. If your knee is behind the ball of your foot in this position, you'll probably want to scoot your seat forward. If it’s in front of the ball of your foot, move your seat back.

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**2. You Don’t Take Core-Strengthening Exercises Seriously**

To keep your spine neutral while you're flexed forward at the hips, your body relies on core muscles like the obliques on the sides of your trunk and the erector spinae, which are long, thick muscles that run along your spine. If you don’t take the time to strengthen these muscles, they tend to fatigue during your ride, leading your body to compensate in ways that stress your spine.
In fact, a review of eight studies published in *Sports Health* found that cyclists with low back pain also had weaknesses and strength imbalances in the core and spine muscles.

“That kind of prolonged flexion can turn the spine into a pain generator, commonly leading to lower back pain but sometimes even mid-back or neck pain because if you’re slouching, then you have to look up a little bit more, and that can cause irritation as well,” says Jessica McManus, PT, a New England-based physical therapist who works with cyclists.

To help your core muscles keep your spine neutral, you need to strengthen them regularly. Ideally, three times per week. McManus says the front plank and side plank offer the most bang for your buck. Still, she’s also a fan of bent-over exercises like rows and reverse flies because they strengthen the erector spinae in a forward-hinge position—similar to how you sit on the bike.

**3. Your Hamstrings are Tight**

Flexibility, or a muscle's ability to lengthen fully, is key for pain-free rides. For cyclists, their ability to lengthen their hamstrings, in particular, can significantly affect how their back feels.

Getting into the proper position on the bike requires hingeing forward at the hips with a neutral spine to grip the handlebars, which calls for plenty of hamstring flexibility. If your hamstrings aren’t long enough to make that position happen, you’ll likely tuck your pelvis under (known as posterior pelvic tilt) to shorten the distance between your hamstring and the back of your knee, McManus says. This increases the curve at your lumbar (lower) spine, which can lead to lower back pain.
If you can’t ride without tucking your pelvis, your first order of business is to add hamstring mobility moves to your routine. McManus favors a lying hamstring stretch because it discourages you from assuming a rounded-back position to help lengthen your hamstring the way you might on the bike.

To do the lying hamstring stretch: Lie faceup and bend one knee into your chest. Interlace your fingers behind the thigh and gently straighten the knee. Stop when you feel a slight stretch in your hamstring; you shouldn’t feel pain. Hold for 30 seconds and release. Do five sets of 30-second holds per side after a workout.

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4. Your Handlebars Need a Height Adjustment

Handlebar height is another common contributor to back pain. Research shows that cycling with your handlebars too low creates a more dramatic rounding in the lower back. “If you’re doing a longer ride or you’re just not used to being in that position, that can be uncomfortable for your back,” Andrews says.

Plus, gripping low handlebars forces you to lean downward while you ride. You’ll likely have to bend your neck more to look up, which strains the upper spine and may lead to pain as well.

You may need to experiment to find the ideal handlebar height, but start by positioning your handlebars level with or a little higher than your seat (at least for road bikes). You may need to move them higher from there.
5. You Ramped Up Your Time or Mileage Too Quickly

As with any exercise, too much cycling can overload your muscles and joints, leading to back pain. “Your body just isn’t physically used to doing that much,” Andrews says.

Moreover, research shows that training at too high a volume causes fatigue, making you more susceptible to sloppy form while cycling, which can lead to injury. In a study published in 2023 in the International Journal of Environmental Research and Public Health, researchers analyzed the movement patterns of 23 amateur cyclists during an exercise protocol and found that their posture changed as they fatigued. In particular, the cyclists began to round their spines and tilt their pelvises—common contributors to back pain.

Avoid issues by increasing your time or mileage gradually. Every week, add no more than 25 percent to the time or mileage you did the week before.

Andrews suggests returning to your week-one workload after three or four weeks of your ramp-up to give your muscles a break. Aim for 50 percent of your usual effort to keep your rides easy that week. You can pick up where you left off the following week and increase your time or mileage again.
6. You Sit a Lot

It's no secret that sitting for prolonged periods can aggravate your back. But combining many hours in a seated position with an activity that mimics that same position only increases your odds of back pain.

If you have to spend portions of your day sitting, take regular breaks to loosen your muscles and joints and introduce them to different movement patterns. Try setting an alarm on your phone or computer to go off every hour or so, Andrews suggests. Take a few minutes to refill your water glass, get up and stretch, perform 10 push-ups and 20 sit-ups, walk up and down the stairs a few times, or do anything else you prefer.

7. Your Legs Can't Keep Up

Cycling targets the legs in a big way. Every pedal stroke relies on all the muscles in the quadriceps, hamstrings, and calves to generate and transfer power. If these muscles start lagging, your body will compensate by asking others to pick up the slack. For some cyclists, that extra effort gets transferred to their spine and lower back.
Imagine you’re riding up a tough hill, and it’s getting harder for your legs; you stand up and start swaying from side to side to use your body weight and momentum,” McManus says. While this is a more extreme example, that type of compensation can also happen on a smaller level if your legs aren’t up to the task. The small but repetitive trunk rotation creates wear and tear on the spine, leading to pain typically most noticeable in the lower back, McManus says.

Keep your legs in the game by targeting them in a strength workout three times per week. Squats, lunges, deadlifts—especially single-leg variations—glute bridges, and calf raises should all be included. McManus suggests three sets of 10 to 12 reps, though rep counts between 15 and 20 can also help build muscular endurance.

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8. Your Mid-Spine Is Stiff

The lower (lumbar) spine tends to dominate conversations about back pain. However, stiffness in the mid-spine can also cause issues.

The mid-spine is also known as the thoracic spine. It consists of 12 thick vertebrae (bones), which start at the base of your neck and end at the bottom of your ribs. This portion of the spine is meant to extend (lengthen), flex (bend), and rotate, but it tends to get stiff from sedentary lifestyles, McManus notes.

Limited thoracic extension is especially problematic for cyclists. As McManus explains, the thoracic spine helps you maintain a nice flat back while riding. If the mid-spine is too stiff to help you reach the handlebars with a flat back, your lower spine will bend to make it happen. “That lumbar flexion becomes a repetitive stress and painful over time,” McManus says.

To get your thoracic spine moving again, try the open books exercise, McManus suggests. Moves like this are great for loosening up the thoracic spine before or after a ride.

To do open books, lie on your side with your knees bent toward your chest, knees and feet stacked. If you’d like, place a pillow under your head for added support and comfort. Hold onto your top thigh with your bottom hand and reach your top arm
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1. Forward Tilt Slide: Lie on your back with your knees bent and feet flat on the floor. Reach one arm forward and lift your head, then rotate your torso to the opposite side of your body until you feel a stretch in your chest. Hold for 10 seconds and reverse the movement. Do 10 reps per side.

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