



Cycling GUIDE

Safety First

Cycling is a great way to stay active, but if you do it enough, it also can cause some very injuries. So what are the biggest problems, and how do you prevent them?

ACHILLES TENDONITIS

Achilles tendonitis is an overuse injury caused by inflammation. To avoid it, Active recommends backing off your training and using ice to cool the inflammation. Ibuprofen also can be used for its anti-inflammatory properties. Though injury is common due to overuse, improper bike fit also can be a problem.

Having your saddle too high can force your toes to remain pointed down, causing constant contraction of the calf muscles. Lowering your seat to ensure your cleats aren't pushed all the way forward toward the toe will help even out the muscles you're using when you pedal. Allowing the foot to point up during the bottom portion of the pedal stroke can ease the tension on the Achilles, allowing the tendon to have needed periods of rest.

PATELLAR TENDONITIS

Tendonitis of the patellar tendon, located just below the kneecap, is usually caused by a

seat that is too low or riding too long using big gears, according to Active. Because of this, the gluteal muscles aren't being utilized as well as they should be. As a result, the quadriceps muscles become overworked and fatigued, leading to tendonitis.

So what can you do to fix it? Varying your pedal cadence is a good place to start, and breaking up your training by pedaling in a high cadence can help prevent injury if you do most of your riding in big gears. Increasing pedal cadence can develop your cardiovascular system, too, which is another added benefit.

Another option: raising the seat if it's too low, which Active notes also will help utilize more of the hamstring and gluteal muscles, while taking some of the strain off of your quadriceps and the patella tendon. Incorporate the quadriceps, the hamstrings and the gluteal muscles to avoid any one muscle group from becoming fatigued.





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World's Best Bike City

Ask just about any cyclist and they'll tell you not all cities are created equal. Sure, you can technically bike just about anywhere, but certain cities are much more friendly to the sport than others.

Where are the best places in the world to cycle? The Copenhagenize Index sets out to answer that question, by looking at everything from the city's bicycle infrastructure, cycling culture and facilities to urban planning and the number of cyclists and politics in the area, as well as safety issues and automobile traffic.

Sadly, the U.S. didn't fare too well in the global rankings, though one U.S. city did make the cut.

NO. 1 COPENHAGEN

The index places the capital of Denmark as the best place to cycle in the world, based largely on the city's commitment to cycling as an equal (if not primary) model of transportation. Here's an excerpt from the report, focusing on Copenhagen's commitment to infrastructure:

"A bicycle bridge over a motorway north of the city. Two new bridges — Trangravbroen and Proviantbroen — over the

canal opened in December 2014. The famous Cykelslangen — or Bicycle Snake — an elevated bike ramp that has captured the citizens' imagination and provided an important mobility link across the harbour. Four new bicycle bridges are on the way. Cross-town routes are being upgraded. A bold attempt is being made to use bicycle travel times as the baseline for all traffic lights and flow projections, instead of car travel times as has been the norm for decades."

BEST IN THE U.S.

Coming in at No. 18 overall, this U.S. city barely made a list dominated by international locales. Minneapolis is making big strides for bike friendliness, however, and cyclists are taking notice. Here's an excerpt from the report about Minneapolis' growth:

"The city boasts 189 km of what they call 'on-street bike-ways' and 147 km of off-street. The latter is less interesting for urban cycling, but Minneapolis is quickly becoming the go-to

city in America for building infrastructure. An impressive — for America — modal share helped push them into the Index, and we like the political will coming out of City Hall. A respectable bike share system is helping to cement the bicycle on the transport foundation of the city. Seeds have been planted and a garden is growing. America — often content with baby steps — is in desperate need of leadership cities, and Minneapolis has emerged as a contender."

Belt Drive or Chain?

When it comes to choosing a bike, you have two main options in regards to the mechanics — a traditional chain or a belt drive. Both have their advantages, and disadvantages. Which is right for you?

THE ADVANTAGES OF A BELT DRIVE

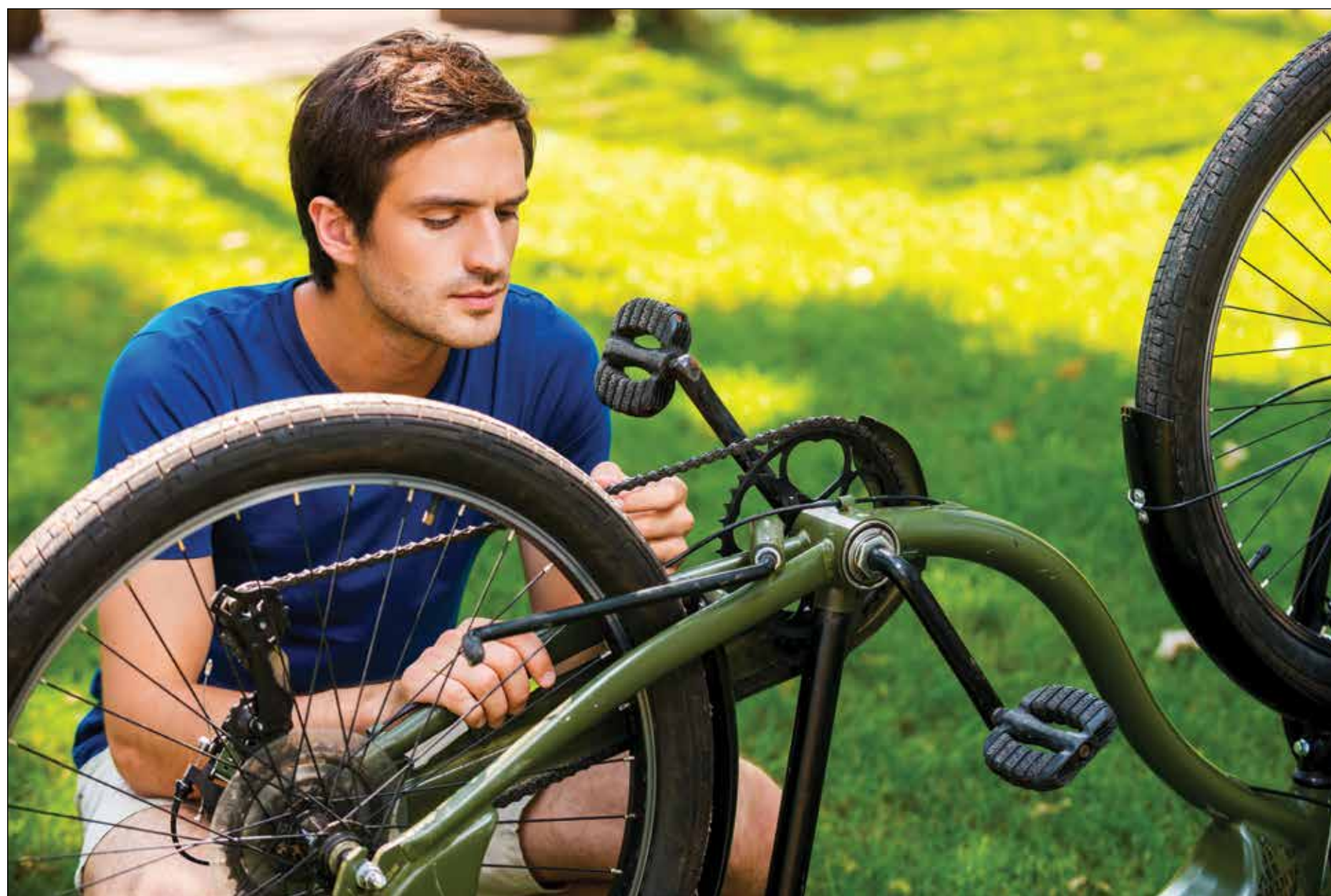
Cycle Monkey Lab took a look at the advantages of a belt drive bike. Here's an excerpt from their breakdown:

“The main advantages of belt drive systems are their long wear life and zero maintenance. Belts are manufactured as one continuous loop — an inner carbon fiber tensile cord layered with polyurethane teeth and a nylon outer coating. They do not have any moving components like the links and pins of a chain. ...

“A belt wears slowly and evenly, and the only wear that occurs is between the belt teeth and sprocket teeth. As a result, belt drive systems last at least twice as long as the longest-lasting chain system and often five to 10 times as long. Few of our customers have needed to replace their belt systems in the past 5 years, and some have ridden over 20,000 miles on a single belt drive setup.”

CHAINS REMAIN POPULAR

Belt drives aren't perfect. They're more compatible with single-gear bikes, or require an internal gear set-up, and are less compatible than the more common and prolific chain models. Cycle Monkey Labs says: “Despite the advantages



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of belts, chains continue to dominate the market because they are compatible with more bikes. Chains fit any bike frame, unlike belts which need frames with special features.

Additionally, their length can be easily modified by adding or removing links to accommodate various sprocket sizes. Belt drives are offered in set sizes, limiting a specific belt

size to a few sprocket combinations and making it more difficult for bike shops to carry replacements. For some riders, chains still offer greater peace of mind — such as long dis-

tance cycle tourists who ride through third world countries and may choose a chain because they are easier to find and replace in these areas of the world.”

Riding at Night

In the summer, an evening bike ride can be a great way to log some miles and beat the heat. However, riding at night creates its own specific safety problems.

Visibility obviously is diminished in the dark, even with street lights. But, there are some steps you can take to make a nighttime ride a whole lot safer.

MAKE SURE YOUR BIKE IS WELL LIT

Some states require a well-lit bike, and regardless of whether it's the law or not, it's still a great rule of thumb. Active provided the following recommendations to make sure drivers have the best chance of spotting your bike at night.

A rear red light, particularly one that blinks, is a great idea. A blinking red light is much more likely to get the attention of a passing motorist who might otherwise not notice you. These have exploded in popularity in recent years due to their effectiveness.

Some lights have reflective material within them, so it can double as the rear reflector required by law.

Many types of headlamps are on the market, including strobes. But some argue that strobes are too bright and can blind anyone the cyclist approaches at night. Strobes do give the appearance of a blinking headlight, however, and are hard to miss. Your mileage may vary.

LOW-TECH TIPS

RevoLights recommends also adding some reflective duct tape to your cycling gear, your bike and just about anything else that'll help you get noticed at night. "Buy reflective duct



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tape from the hardware store and add strips to your bag. Add strips to your frame. Add strips to your shorts or pants and the shirt you plan to ride in."

BE ALERT

In the dark, it can save your life to remain aware of your surroundings. Active notes you can never assume that motorists see you — even if an

alert driver undoubtedly should.

Make decisions such as crossing an intersection with ultimate paranoia. It's your responsibility to make sure you're seen.

Crossing Obstacles Safely

The good thing about riding a bike is versatility, as you can squeeze a bike into just about anywhere. You do, however, need to take note of exactly what you're riding over.

Metal road obstacles can be among the most dangerous, though there are a few tips you can follow to make your ride safer.

Josh Miller, community education program manager at Cascade Bicycle Club in Seattle, gave the cycling publication *Bicycling* some tips on how to stay safe when you encounter metal road hazards.

RAILROAD TRACKS

First things first: Check to make sure there aren't any trains coming. If a train is coming, wait. Period. After that, Miller recommends crossing the tracks at as close to a 90-degree angle as you can and riding straight across without turning. "Sometimes this requires a swerving or repositioning action," Miller said. "If so, be sure to scan and only do so when traffic is clear."

METAL BRIDGES

The report notes metal bridges are typically safe to cross. Just make sure you're aware of the bridge's make-up

and design before hitting it at full speed. Metal bridges can get very dangerous if you're riding after a rain, or when the bridge might be wet for other reasons. If the bridge is wet, *Bicycling* recommends you use extra caution and don't brake or turn while crossing the bridge. If you're still not sure it's safe to cross, dismount and walk your bike across. "You can always switch to 'pedestrian mode' if you feel unsafe on a roadway for any reason," Miller said.

SEWER GRATES

When it comes to sewer grates, *Bicycling* doesn't mince words: If you can avoid them, do so. If you can't get around them try to ride perpendicular, if possible. Remember, these can cause a major crash. "Sewer grates share the hazardous qualities of other metal fixtures, but depending on their design, can be even more hazardous," Miller said. "Some sewer grates can trap your tire and cause a crash."

Stay Warm in the Cold

Just because the temperature drops, it doesn't mean you have to park your bike. Sure, it's not quite as fun to ride in the winter, but there are some steps you can take to stay warm on that daily commute — even when it might be blistery out.

KNOW WHAT YOU'RE GETTING INTO

It's important to look at the weather before taking off on a ride, but also make sure you're aware of the wind chill factor. As Active notes, remember you're moving quickly already, and coupled with any potential wind, that can make things feel even cooler.

KNOW WHAT TO COVER

When figuring out what to wear, take into account which parts of your body are actually moving and doing a lot of the work. When cycling, your hands are typically exposed to the wind, as well as your torso — and neither are doing a whole lot of moving. So, when layering up, be sure to wear appropriate gloves and make sure your body is layered enough to stay warm.

LAYERS, LAYERS, LAYERS

Pez Cycling, via Active, points out some basic rules to live by when it comes to dressing for cycling success in the colder months.

66-71 degrees Fahrenheit: Base layer; short-sleeved jersey; shorts; racing mitts; socks.

62-66 degrees Fahrenheit: Add arm warmers.



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59-62 degrees Fahrenheit: Add knee warmers or 3/4 length tights; swap for thicker socks; swap mitts for thin full-finger gloves.

55-59 degrees Fahrenheit: Swap knee warmers for leg warmers; add a gilet.

51-55 degrees Fahrenheit: Swap warmers for full medium-weight tights, thicker full-finger gloves; add long-sleeved jersey; toe covers or over-socks; head-band.

48-51 degrees Fahrenheit: Swap to long-sleeved base

layer; thin hat, add race-cape/packable water-proof for changeable conditions.

44-48 degrees Fahrenheit: Swap to full over-shoes or winter shoes; thicker hat.

41-44 degrees Fahrenheit: Swap for heavier-weight

tights; lobster gloves or mittens.

37-41 degrees Fahrenheit: Add a second long-sleeved jersey; a midlayer sock.

33-37 degrees Fahrenheit: Add additional base-layer; knee warmers under tights.

Find a New, Safe Route

As any cyclist is likely well aware, your mileage may vary in regards to how much (or how little) your city of choice invests in bike paths and trails. Make sure you have at least some inkling of where you're going before setting off.

PAY ATTENTION TO YOUR SURROUNDINGS

It might sound obvious, but being aware of the roads and bike lanes around town is one of the biggest parts of the puzzle. If you're driving or walking around an area you'd like to eventually ride, take note of any applicable bike paths and the make-up of the road or path itself. Does it have a ton of potholes that could flip you if you aren't paying attention? Good to note when routing your path.

KNOW THE TRAFFIC PATTERNS

If there aren't any bike paths, this is even more important. Not only do you need to have a feel for how much automobile traffic is on a road at that time, but also at the potential time you plan on riding. Is it near a school or major business? The traffic might not look too bad at one time, but it could be backed up and very heavy at another time. Be sure you know the factors and the impact they have on the area.

CHANGE THINGS UP

One of the best things about riding a bike is the ability to take it just about anywhere, so with a whole world around you, why not check out a fresh route on occasion? Changing up your bike route can help keep things interesting by providing a chance of scenery, but it also can change up your workout by setting up different grades, steepness, etc.

CHECK THE PARKS

It's amazing how many communities



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have bike-friendly parks and paths. All you have to do is find them. Check with your municipal parks department or

county parks department (if applicable) and find out about the local parks. Some towns also have cycling groups,

and those folks often know the best places in town. Make friends and discover some fresh territory.