



Common bicycling injuries

How to ride safely

Almost every young person takes part in bicycling, whether they're riding around the neighborhood with friends, doing tricks on their BMX bikes, mountain biking or competitive road racing. And, once you learn to ride, you never forget. That's a good thing, because cycling provides great exercise and great fun for people of all ages.

Bike safety has always been important, but there has been particular attention paid in recent years to preventing accidents and injuries. Helmets are now standard equipment for young and old riders alike. In fact, wearing a helmet may reduce the risk of head injury by 85 percent. Also, proper bike set-up, correct riding technique and adequate rider fitness may help reduce risk.



Rider Safety

Common accidents, serious injuries

Head injuries Falls may lead to cuts, headaches, dizziness and even concussions. Fortunately, wearing a helmet may reduce the risk of head injury by 85 percent.

Road rash Falls cause cuts and scrapes.

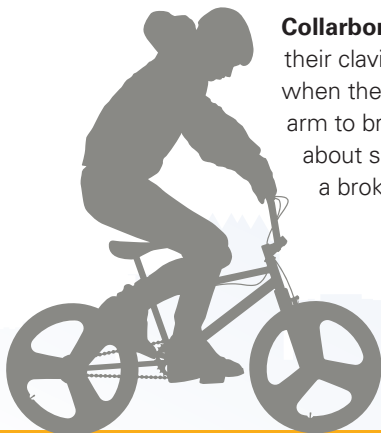
Collarbone Cyclists may break their clavicle or collarbone when they use an outstretched arm to break a fall. It takes about six weeks to heal a broken clavicle.

Knee pain Riding with bad posture or on an ill-fitting bike may lead to knee pain.

Lower back pain Riding too far forward or just being out of shape may cause lower back pain. Use ice, heat and rest.

Saddle sores Sweating on the bike seat (saddle) may cause uncomfortable bumps to form in the buttocks and groin area.

Nerve compression Riding for too long may produce numbness in the fingers, palm, elbows or shoulders. Adjust the seat, stem or handlebars for better comfort.



Preventing cycling injuries

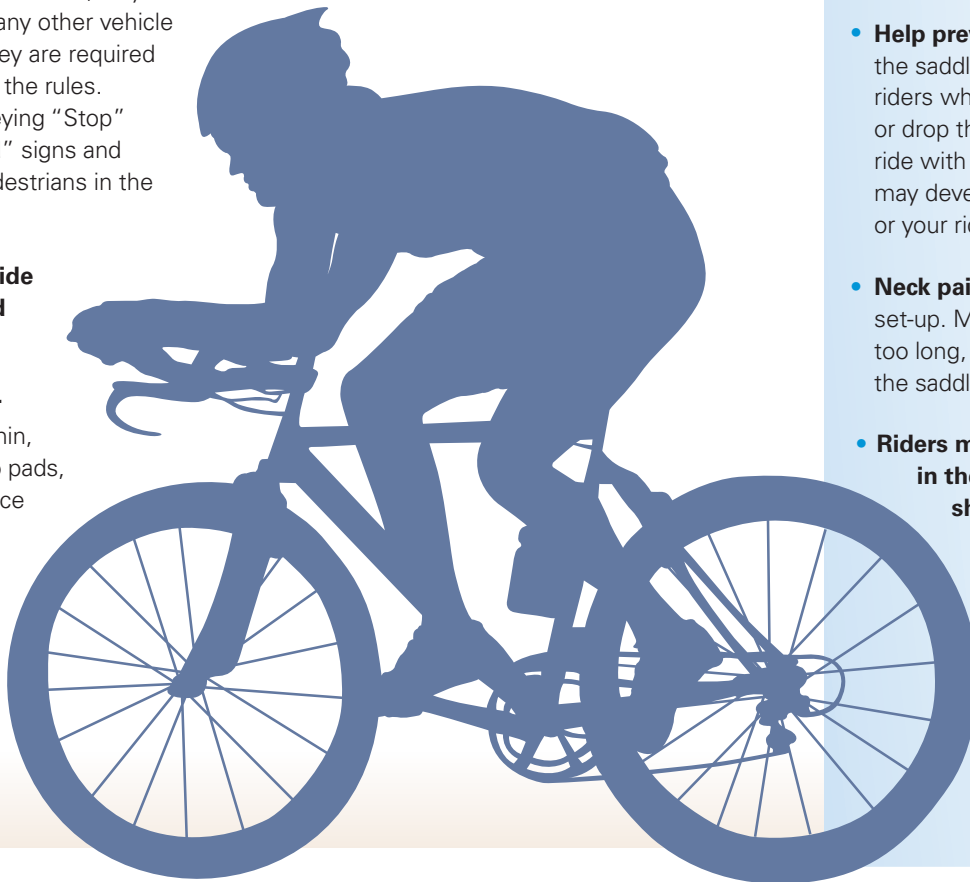
These tips will help keep you riding happily and healthfully:

- **Make sure your bike is the right size for you.** If you can't reach the pedals or if your legs extend well past the pedals, get your bike adjusted or pick a new one.
- **Use a properly fitted and adjusted helmet.**
 - **The helmet should be tight**—tight enough that when you rotate the helmet, your eyebrows move.
 - **"V" straps around the ears** should have the point centered below the bottom of the ear.
 - **The chin strap** should allow for two fingers to be placed under the strap.
- **Replace your helmet** after serious impact or if there is visible structural damage, such as dents and cracks.
- **Perform regular maintenance on your bike to ensure proper functioning.** For a complete tune-up, take your bike to a shop with experienced, knowledgeable professionals.

- **Constantly be aware of all traffic patterns and abide by the laws.**

When riding on the road, bicyclists are treated like any other vehicle operator, and they are required by law to follow the rules. That means obeying "Stop" signs and "Yield" signs and stopping for pedestrians in the crosswalk.

- **BMX and Freeride athletes should consider additional protective gear** such as knee, shin, elbow and torso pads, as well as full-face helmets.

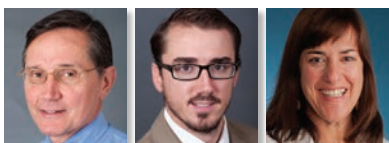


Setting up your bike

About 80 million people ride bikes in the United States, and every one of them is different. That means that every bicycle should be set up in a way that accommodates the size, shape, level of fitness and riding style of each cyclist.

Proper set-up can go a long way to reducing the neck, knee, groin, hand and back injuries common to bike riders. Serious riders, or those who experience any of the symptoms described below, are encouraged to see a reputable bike fitting professional.

- **Pain at the front of the knee** (anterior) may be caused by improper bike fit. Adjust the bike to make sure the saddle is not too far forward or too low. Also, check to see if the crank set and the cleats are too long for the rider.
- **Help prevent tendinitis** by lowering the saddle or moving it forward. Also, riders who use large gears, who pull up or drop the heel while pedaling or who ride with their knees angled in or out, may develop tendinitis. Adjust your bike or your riding style accordingly.
- **Neck pain** may result from a poor set-up. Make sure that the stem isn't too long, the bars aren't too low and the saddle isn't tilted too far forward.
- **Riders may experience numbness in the fingers, palms, elbows or shoulders.** This nerve compression may be the result of insufficient padding on the handlebars or riding a bike that's the wrong size for the physical frame of the rider.



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This piece is part of an informational series on sports injury prevention produced by the Orthopedic Center/Sports Medicine Program at Boston Children's Hospital. For materials on preventing injuries in other sports, call 617-355-3501 or visit bostonchildrens.org/sportsmed.



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