



Bicycle Tips and Information

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1.Cool Weather Riding Tips

Ride Safely in Traffic



Share The Road - cyclists present.
(c) David Fiedler

Being out in traffic on your bike is like eating raw oysters. It looks a whole lot more unpleasant and frightening than it really is. For some people, it just will never be a comfortable experience. But if you are willing to take a spin on some quiet streets to develop your confidence, chances are that you'll soon be hooked and well on your way to buzzing around town.



There are three important things that are key to making your way successfully and comfortably on public roads.

Be Visible and Maximize YOUR Vision

To ride safely, you need to be visible to cars. This means wearing bright colors, including day-glo or reflective gear¹, particularly in the early morning or at dusk. Lights are important too, both headlights on the front of your bike and blinking red lights in the back (I often have 3 or four running at the same time). Not only is it the law in most places, it is the best money you can spend to ensure your safety.

If you are feeling particularly flamboyant, you might even consider flying an orange flag or windsock like you can see on a granny trike going down the beach.

Also, for maximum visibility, you must ride where cars expect to see other traffic. That means always riding *with* traffic (on the right side of the road in the U.S. and most of the world outside of the U.K.) and not against it. One of the most frequent causes of accidents is wrong-way cyclists being struck by cars who do not anticipate these kamikazes on bikes coming towards them at a relatively high rate of speed from the wrong direction, particularly when the car is turning from a side street onto a more major roadway.

Visibility does not only apply to cars seeing you, but also to you seeing cars! Always ride with a rear view mirror. There are numerous styles of rearview mirrors including handle-bar mounted, helmet mounted and also clip-on's which are easily placed onto your eyewear. You should always wear protective eyewear, not only as protection from the sun, but also to protect your eyes from debris. Finally, if you plan on commuting at night, having a pair of glasses with multiple lens kits (clear lenses for night riding and yellow for cloudy days) is absolutely necessary. My favorites are the mirror by Third-Eye™ and glasses by Native-Eyewear™, both available online or at REI.

Be Predictable

A common mistake that beginning cyclists make is feeling that they are not entitled to be on the road at all. This thinking is dangerous because it causes cyclists to cower in the presence of cars and act in ways that are in fact contrary to their safety.

An example: imagine riding on a two lane road with light to medium traffic and no shoulder. A beginning cyclist might feel they need to hug the edge of the street while riding, staying as close to the white line as possible. This causes problems because it encourages cars to try to squeeze past, passing when it is not safe. It leaves no room for the person on a bike to maneuver in the event of glass, sewer grates, debris, snapping dogs, politicians, etc., that might appear suddenly on the side of the road.

The better way to ride in this situation is to behave like a car, riding in a straight line in the lane where the car's right wheel would go. This makes you more visible, and allows you room to move when necessary, plus does not allow cars to pass when it is unsafe.

What makes this difficult for most beginning cyclists is the common fear of being struck from behind. Fortunately, this is among the rarest type of bike/auto collisions. If motorists can see and avoid a traffic cone or highway sign planted in the street, certainly they can safely observe and move around a cyclist properly positioned in the lane.



The risk of accidents at the most common location – intersections – again can be alleviated most effectively if you ride “like a car.” This means no weaving through cars or riding erratically. Rather, focus on obeying traffic lights, signaling turns and being visible to drivers both in your dress and in your presence on the street.



Right-turns must yield to bikes
(c) David Fiedler

Choose Appropriate Routes

Let's face it. There are some roads that are just not suitable for bicycles. Heavy, high-speed traffic on roads with no shoulders are the most common things that will make for unsafe or unpleasant riding.

But there are many other routes that are great for cyclists precisely because they are crummy places for a car to go fast. You may not have even considered them to ride your bike, simply because they are not on your radar as a driver.

For a fun ride or as a potentially sweet route to work or school, look for the less traveled roads that usually parallel main thoroughfares and interstate highways. These probably go through residential neighborhoods, and/or have a lot of stops. Not ideal for a driver in a hurry, but heaven for a person on a bike. Mapquest and GoogleEarth are invaluable tools for charting your route and exploring new ones.

Takin' It To The Streets

So, if you've not tried riding beyond the bike path, now may be the time to give it a whirl. Believe it or not – and statistics bear this out – riding on the street is a whole lot safer than a bike path because you're typically not dodging kids and dogs and roller-bladers. Plus, it's a great way to discover some awesome places to ride and a new fun way to explore the neighborhoods around you.

Dress Right for Cool Weather Riding



Bike Path in Autumn
(c) Alfons Hoogervorst

Cool weather conditions can offer some of the best riding you'll find. The scenery is good with changing colors and bugs are not a problem. You can go at it hard if you want for longer periods of time and not worry about getting overheated. But, for maximum comfort and personal safety, not to mention to provide your body with the ideal conditions for best performance, it's important to dress appropriately for the weather.

Wear Layers

Cooler temperatures mean you should apply some strategy when you're picking out your dress for the ride. Too few clothes, and you'll freeze. Too many and you'll burn up. Smart riders know that layering your clothes² is the key to success. Dressing in several light layers allows you to add and remove clothes as the temperature changes and as your body heats up or cools off.

A base layer with good wicking properties will help draw sweat away from your body and keep you from getting chilled later if temperatures drop, winds increase or your activity level slows. A middle, insulating layer that helps keep you warm and yet allows air to still circulate around your body should go on next. Finally, you'll want a lightweight outer shell that serves as a windbreaker and can offer you protection from precipitation if needed.

Control Perspiration

Dripping with sweat may be fine on a hot summer day, but it's not what you want when the temperatures are more moderate. This means that one of the most important things that you are trying to do in dressing for cooler weather is to keep yourself warm, but not too warm⁵. You don't want to be soaked in sweat when you're riding in cool weather because you can chilled later on if the temperatures drop or if your activity slows.

It's a common mistake for riders to overdress for cool weather, and actually end up being too warm very quickly. If you are warm and cozy before you even start riding, once you get on the bike, you'll start to get hot in no time at all. Start out lighter, with the option to add additional layers if necessary.

Use Leg/Arm Warmers to Manage Temperature Swings

One of the most versatile and handy accessories of cool weather riding is arm and leg/knee warmers. Most simply described as removable sleeves, they help keep you warm when you first get started on those chilly mornings, yet can be removed quickly and tucked in your jersey pocket or pack as the day gets warmer or your body heats up.

Cover Your Head



One easy way to regulate your body temperature is to cover your head and remove as necessary. Just a wrap around your ears or a thin cover (like a Headsweats-type covering⁶) under your helmet will have a dramatic impact on your body's temperature, because that's where you lose a lot of heat. Like arm and leg warmers, these are easy to put on and take off as necessary, and use very little space to store in your pocket or pack.

Beat the Chill

These aren't complicated tips or particularly sophisticated, but there is no doubt that remembering and using these simple concepts when you are picking out your cycling clothes will help you enjoy those great rides that cooler weather can offer, and make you a smarter cyclist all around.

Dressing in Layers

How to Stay Warm on the Bike on Cooler Days



Pearl Izumi Barrier Jacket
(c) Pearl Izumi

So some well-meaning person tells you that to stay warm in cooler weather, you've got to "dress in layers." Well, what is that supposed to mean? Every time someone talks about layers I think about onions and how starting at the outside, you can see the distinct layers that can be peeled away to gradually expose the core. Layering your clothes follows the same principle, only without the strong smell and all the crying. (Unless you've been on a particularly difficult ride.)

When you dress in layers, you generally have three different types of clothing on your body, each with a distinct purpose. Let's walk through them one by one and with each, talk a bit about what you're trying to accomplish.

Base Layer

The base layer is the one closest to your body. Its purpose is to help you stay warm but not get too hot, and most importantly, should serve as a way to carry perspiration away from your core. Think high-tech long underwear. Believe it or not, wool is an excellent material for this, and some synthetic materials are suitable as well.

Examples of good base layer tops are the [SUGOi Hotshot II](#)¹ or the [Adidas Climawarm long sleeve jersey](#)².

Middle Layer



The purpose of the middle layer is to insulate and at the same time to still continue to move moisture away from your body. This layer is "fluffier" than the base layer if that makes any sense, keeping warmer air in close to your body yet allowing it to still circulate around you so that you don't get too warm in periods of high activity.

Of the three layers, this one will vary the most depending on the temperature and the individual person. In addition to the actual air temp, your level of activity plus the amount of sunlight and wind combined with your level of fitness and metabolism will all factor into how much insulation you will require in this middle layer.

Polyester fleece is a good choice for an insulating layer. Wool turtlenecks or vests also work well. Some good examples of middle layer clothing are the [Pearl Izumi Woolie Mammoth jersey](#)³ or the all wool [Castelli Armando Long Sleeve Jersey](#)⁴.

Outer Shell

The outer shell primarily serves as a windbreaker and also works to thwart any precipitation you may encounter. This layer's first job is to keep you dry; the warmth you'll experience comes from what's underneath. The outer shell should be breathable to help get rid of the moisture you're generating through perspiration; strategically placed vents (such as under the arms) are a big help to this end. Nylon is the most common material for lightweight outer shell garments; heavier ones are going to be made from GoreTex or another one of the patented fabrics. A lightweight example of this type of outerwear is the [Louis Garneau Winddry Jacket](#)⁵; the [Pearl Izumi Barrier jacket](#)⁶ is one that runs a bit heavier.

Enjoy Riding in Any Weather

Every day is a great day for riding when you pair this principle of layers with appropriate coverings for your hands, head and feet. With the right gear you can safely and comfortably ride on days when the temperature dips well below freezing and take your bike out in weather that before you might never have considered for riding.

Avoiding Overheating - Regulating Your Body Temperature In Cool Weather

Riding Without Sweating In Colder Weather

It may seem ironic that overheating is one of the bigger problems that occur when people ride in cool weather¹. Riders watch the weather, agonize about the chilly temperatures and start to pile on the clothes as they get ready. Makes sense right? No one wants to be cold when they ride. But what happens is that people put on all kinds of layers, plus gloves, a scarf and covering for their head and feet. They start off toasty warm, but pretty soon are sweating up a storm.

When a person starts to sweat a lot is when the problems start, because that's when your clothes become damp. Then later, that moisture will be what can chill you out when your activity slows. And that's what can lead to a dangerous condition called hypothermia².

How to avoid this problem?

1. Wear less clothes



Lots of times, you actually need fewer clothes than you think. Still go in layers³, but you actually want to be on the chilly side when you start. If you are warm enough from your clothes when you are first riding on a chilly day, in no time at all you'll be too hot and have to peel off layers. If being chilly when you first start makes you nervous about never warming up, you can always throw a jacket or sweater in your pack to use if necessary.

2. Make minor adjustments by removing hat or gloves

If you find yourself getting warm when you're riding, you'll find that relatively small steps may be all you need to cool off. Removing a hat or pair of gloves as you ride is often all it takes to go from starting to feel hot and sweaty to giving yourself enough breeze and ventilation to be cool and comfortable.

3. Use ventilation features in clothing

Many clothes (regular or cycling specific) offer features that can help cool you off. Lower the zipper in the front of your jacket or sweater to let cool air into your torso area and to allow warm air to escape. Or, if you're wearing a windbreaker, undo the vents under the arms that many have, or else just roll your sleeves up.

4. Drink lots of liquids

On cool days, it's easy to lose sight of the need to stay hydrated. If you continue to push fluids, not only will you keep your body satisfied for its normal hydration needs, but the cooler liquid will help lower your body temperature.

5. Use layers effectively

Certainly you can experience fairly dramatic temperature changes just in the course of an hour in a single ride. Your exertion levels will vary, the external air temperature will change as you ascend hills or descend into valleys. The sun will shine brightly or be covered by clouds. Most important is to have several different options for how you dress, between head and hand coverings and a couple of different layers for your torso -- either a jacket, sweater, windbreaker or vest -- and to be aware of your own body's temperature and to add or take away as you either heat up or cool down over the course of a ride.

Top 7 Essential Items to Have Along on a Ride

When you're out on a bike, you should be as self-reliant as possible. Here are the seven items to carry with you that will help you fix the most common problems you'll encounter when you're riding. The good news is that these will all fit in a little pack that attaches underneath your seat. And, if you don't already have these items, you can find them all pretty reasonably, without it costing you an arm and a leg.

1. Spare Tube¹



²(c) Oskay/Flickr.



If you're going to be out and about, the most likely problem you'll have with your bike is a flat tire. So bring along another tube specific to your bike. They are fairly compact, easy to change out, and you'll be back riding in no time. Never changed a flat tire? [Here are easy instructions on how to change a flat.](#)³

2. Patch Kit⁵



⁶(c) David Fiedler

In addition to a spare tube, you'll want to carry a patch kit as well. But isn't that redundant, you ask, when you're already carrying a tube? Not really. Murphy's Law means that you'll get a second flat in the new tube just as soon as you've replaced it. Plus, you are really carrying these items to be able to help cyclists who might need it, just as much as for your own good, right?

"The patch kit [I carry] is for other riders that my need help," says Pennsylvania cyclist Brad Morris. "Luckily I have used the patch kit 6 times, while still need to use the tube."

Plus, patch kits are typically quite small and are a nice "one-size-fits-all" insurance policy against tire problems.

3. Tire Levers⁸



⁹(c) David Fiedler

If you're going to fix a [flat tire](#)¹⁰, you'll need tire levers. These small tools slide under your tire and help pull it off your rim so that you can remove the tube to [patch it](#)¹¹ or replace it with a spare. They fit easily in your pouch or jersey pocket, and you really don't want to be without them.

4. Pump (or CO2 inflators)¹³



¹⁴(c) Blackburn

Whether you carry a patch kit or spare tube, if your tire goes flat, you will need to find a way to get air back into it. That's where a nice little pump comes in. Usually clamped to your frame, these mighty little dudes will put enough air in your tire to get you back on your way.



Some riders prefer to carry CO2 cartridges¹⁵ - little battery-sized cylinders that deliver a burst of pressurized gas and refill tubes in a fraction of a second. They are lighter, but require a bit of practice to use, else you can blow out the tube you've just replaced. Plus, they cost about a dollar a piece, for what is typically a one time use.

5. Multi-Tool¹⁷



¹⁸(c) Topeak Corporation

For any number of potential fixes or adjustments you might face on the road, a multi-tool is a handy gadget that you'll want to take along no matter how short or long your ride. A multi-tool typically comes equipped with a dozen or more individual tools in various sizes, including Allen wrenches, hex bolt wrenches, screw drivers, a chain tool and more. Tucked neatly into one small package, it's like a portable tool box for fixing your bike - in more ways than you can ever imagine. Plus, many come outfitted with a bottle opener too, when the situation becomes particularly severe.

6. Cell Phone

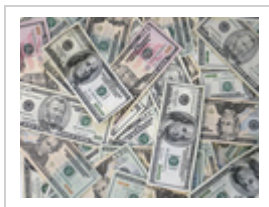


²⁰(c) Oracio/Flickr

How did we ever get by in the days before cell phones? For calling home to get picked up in case of breakdown, for calling your buddies who may be ahead of you or behind you on the route during those longer rides, or for just calling ahead to order a pizza at your favorite place, there is no reason not to carry a cell phone if you've got one.

There's at least one rider I know of for whom a mobile phone is all the equipment and tools needed on a ride. In case of a breakdown, he calls the bike shop (free service with purchase of a bike) to come get his wheels and then rings a cab company to send him a taxi for a ride home.

7. Identification/Money/Insurance Card



²¹(c) Tracy O/Flickr

This is one of those just-in-case items that you bring and hopefully never use. Take along a few dollars for drinks and snacks along the way. And, in case of a split in your tire, a dollar bill can be laid along the split inside your tire to keep your tube from bulging out too badly until you can get it repaired. And, be sure to bring along copies of your identification and insurance cards.



God forbid you get into an accident, but in case you do, you'll definitely want and need these items. Tip: on the backside of these documents, write down your list of emergency contacts as well as any special medical instructions or allergies to medicine you might have.

Everything Else You Need on a Bike Ride

Handy Stuff to Take That You Might Not Think Of



(c) Zara Evans

You now know the seven items you should always have¹ with you on a bike ride: spare tube, tire levers, patch kit, pump/CO2, ID card, multi-tool and cell phone.

But there are lots of other strange and wonderful things that people carry along with them that to make their bike rides safer, more comfortable or more convenient.

Below are lists submitted by experienced cyclists of "everything else" that they carry with them while they ride. For organization's sake, I've sorted them into three broad categories -- bike tools, gadgets and gizmos, and personal care items. Take a look at what's below. You'll enjoy seeing what people carry in their pack and what you might consider taking with you too next time you ride.

Bike Tools

- Chain tool - "It has saved my butt more times than I can count."
- Kevlar Spoke replacement
- Duct tape - for patching cuts in tires (It's reflective too!)
- Adjustable crescent wrench (small size can fix most problems)
- Spoke wrench (by knowing the basics of truing you can save yourself a lot of money/time)
- Chain-Lube
- Needle-nose pliers (often on multi-tools)
- Knife (combine this with needle-nose by getting a Leatherman™ style tool)

Personal Care Items

- Sunscreen
- Energy food – Kashi™ Bar, Clif™ bar, gel shots, etc.
- Kleenex/toilet paper (Preferably biodegradable)
- Pain reliever (Ibuprofen/Acetaminophen/Aspirin)
- Reading glasses - "You need these if you are over fifty. Try to fix a chain if you can't see!"



- Large hankie - for mopping sweat/snot, wiping hands, binding up wounds, etc.
- Coffee card
- Bottle opener
- First aid kit/band-aids
- Tampon - "sometimes Mother Nature catches me off guard"
- Disposable poncho
- Asthma inhaler
- Injector for bee stings

Gadgets and Gizmos

- iPod
- Digital Camera
- Handheld GPS device
- Garage door opener
- USB thumb drive - "for carrying work documents back and forth"
- Spare batteries - for headlights and tail lights



5 Things to Check Every Time You Ride

Quick Steps to Ensure Your Safety



It's easy to miss little gouges like this one that can cause a blowout when riding. That's why regular checks of your tires are so important.

(c) David Fiedler

If you're like me, when you're ready to ride, all you want to do is go. Just jump on and start pedaling. But for your own safety and to keep your bike in top working order, it's really important that you get into the habit of performing five simple maintenance checks whenever you ride.

The good news is that these inspections are quick and easy, taking no more than 30 seconds total. And, by checking your bike for the most common mechanical failures that can lead to a crash, you'll be taking some very effective steps to ensure your own safety each time you go out.

1. Tires and Wheels

Before you get on your bike, check your tires to make sure they are properly inflated. Take a quick look all the way around for places where the rubber might be cracked, gouged or worn.

Also, check the nuts or quick release mechanisms that hold your wheels in place. Verify that your wheels are securely fastened so they don't come out while riding. You don't really want to play stuntman, and fly over the handlebars, right?

2. Brakes

Squeeze your brake levers to make sure that they apply enough pressure to stop your bike and that you don't have any problems with fraying or stretched cables.

Also eyeball the brake pads in the front and back to be sure they are hitting only the rims and not the tires. If your brake pads are squeezing the tires when applied, not only can it wear or damage your sidewalls, but can also result in you being bucked over the handlebars, offering yet another way to play Evel Knievel, because rubber hitting rubber grips very well. You only want the brake pads on the rims, because that allows a gentler, more consistent stop.

3. Seat Post and Handle Bar Stem



Next, check to make sure that your handle bar stem is fastened tightly and that your seat is set at the correct height. You want to be sure that both are secure, as there are fewer things more exciting than realizing that you can't control your bike as you go zipping down the street because the handlebars are loose in your hands.

4. Helmet

As you get ready to put on your helmet, look it over once to make sure there are no cracks on the outer shell or inner surface. Check too, that the straps are adjusted so that the helmet fits snugly, and sits down on your forehead, hitting somewhere above your eyebrows. A common mistake is to wear a helmet that rides up too high, which won't protect your forehead in the event of a wipeout.

5. Chain and Gears

The last thing to check is that your chain turns cleanly through your front and rear sprockets and doesn't rub against the derailleurs. You can do this as you pedal when you first set off. At the same time, quickly run your bike through its range of gears to make sure there are no problems with rough shifting, chain slippage etc., and that the drive train is free from excessive grime and doesn't need lubrication.

The problem I experienced with chain slippage happened once when I was stopped at an intersection going uphill. The light changed and I stood up slightly to pedal hard and get moving. But instead of beginning to move forward, the chain slipped, my pedals twirled wildly and I lost my balance, coming down hard on the bar and veering over into the traffic lane.

I was able to recover and continue riding, but was it painful? Yes. Embarrassing? Yes. And if cars had been moving next to me when I swerved into the lane, this episode might have ended differently.

Quick, Easy, and Very, Very Important

All told, these checks should take you less than 30 seconds, and really just require a visual inspection of your bike's main components. This is smart and easy way to make sure you stay as safe as possible when you're out on your bike.

Simple Steps to Avoiding Flat Tires

Easy Ways to Keep Your Bike Tires Full





Pumping up a bike tire.
(c) Jennifer Purcell

Tired of changing bike tires alongside the road? Getting a flat tire every now and then might be unavoidable, but if you've been having lots of flats there are certainly several simple things you can do to greatly reduce their frequency.

Watch Out for the Shiny Stuff

When you are going down the road, as much as you can help it, don't ride where the debris collects. Glass, nails, wire, small sharp rocks, etc., are all pushed to the shoulder by the sweeping action of the car tires. They don't want to drive in it, and neither do you. In particular, watch out when you see shiny stuff ahead. That's where the small shards of broken glass are, the stuff that if it gets stuck in your tire, can gradually work its way down and eventually cause you to lose air.

"Whenever I see a puddle of broken glass in my path, which is often, I get off and walk the bike around it," says John Weeks, a 70-year-old cyclist from Topeka, Kansas. "If I don't see the glass in time I get off at once and check the tires. I have managed to avoid flats for quite some time."

Rub Away Your Troubles

When you do hit a patch of shiny stuff or a lot of small sharp rocks, once you're past it, rub the thick padded part of your glove against your tire as it turns a couple of times. By doing that, you can dislodge anything that has embedded itself in your tire before it has a chance to go deeper. Most flats occur down the road a ways after you've picked up whatever sharp stuff punctures your tube, rather than causing an immediate loss of air.

Of course, it is safest to do this by dismounting briefly and spinning the tire by hand. Faster -- though more risky -- is to do this check while riding. If you go that route, be very careful. Best practice is to keep your hand on the front side of the fork and on the front side of the rear seatstay so that you don't get your hand caught in the spokes.

Check Your Tires After Rides

You can also help yourself avoid flats by thoroughly checking your tires after rides. It just takes a couple of minutes and can save you lots of hassle later. Position yourself in good lighting and take the time to slowly spin each wheel, looking for embedded objects or damage to your tire, like cracks, cuts or punctures on the sides and top.

Patch Those Minor Cuts

If you see a cut or puncture during an inspection, simply dig out any debris and then seal the hole with super glue or shoe goo, even placing the adhesive down in the hole if you can. Let the air out of your tire, then pump it full again. This will help set the sealant in the gouge and hopefully protect against further problems.

If the cut is not repairable, you may need to replace the tire. This can offer you the chance to buy decent puncture-resistant tires. We talk about that below.



Double Tire Method: Twice the Fun, Twice the Protection

Some cyclists have had success in thwarting flats by lining their tires with a second layer of rubber taken from an old pair of bike tires. You won't see the racers on the pro tour doing this as it may add a few grams of weight overall, but hey, personally I don't care - I'm just interested in keeping my tires full of air and not having my buddies stand around watching me trying to patch a tube when we should be riding. And this will certainly help cut down on the number of flats you'll get.

What you need is an old pair of skinny tires from a road bike, 23cm wide or so. Your local bike shop should have plenty of these around to give you. Cut off the bead -- that's the sides of the tire, the part that fits snugly into your rim -- and take the rest of the tire, what used to be the part that actually hit the road, and use them as liners for your real set of tires. Just tuck them in between your tire and tube and inflate as normal. Don't be afraid to trim the old tire as necessary to make it fit.

Use Tire Liners

Rather than cutting up old tires, you can also purchase tire liners that were designed specifically for this purpose. [Mr. Tuffy](#)¹ is just one company that makes good [tire liners](#)². These work in the same way, helping reduce flats by providing an extra layer of thickness and protection against cuts and punctures.

Buy Better Tires

It's going to cost you some money, but one final way to avoid flats is to buy better tires. Many tires on the market today are specifically advertised as being puncture resistant. They come extra thick and/or kevlar reinforced to make them especially resistant to cuts and punctures. I've been very happy with a pair of Continental's [Ultra Gatorskins](#)³ on my road bike that now have 1,000 plus miles. They greatly reduced the number of flats I was getting in the stock tires that came with the bike. Some good sturdy tires that are more mountain-bike style with knobby treads are the [Panaracer Fire XCs](#)⁴. This is another good brand you should check out if you're having trouble with flats on your mountain bike or hybrid.

Pay Attention to Your Tires

If you'd rather ride your bike than walk long distances, then paying attention to your tires is a good thing to do. Take care to inspect them after every ride, repair or replace any damaged tires and keep 'em inflated properly, and you'll have made great progress towards keeping the air in your tires and your feet in the pedals, where they belong.

Four Easy Bike Tune-Up Tricks



(c) Zara Evans



Want your bike to go faster? Ride easier? Shift smoother? Improvements in these areas are often relatively easy to accomplish with just a few simple steps. Try out these simple tune-up tasks below, which don't require any special knowledge or tools, and see immediate improvements in your riding.

1. Clean your chain

The chain and sprockets on your bike play a key part in the transfer of power in your legs to your wheels, making them go round and round. When they collect dirt and grit and get gummy, not only does it slow you down, but they also wear out faster. Keeping your chain clean and lubricated is one of the best ways to keep your bike working well.

This is not a daily or weekly task by any means. Plan on doing this every thousand miles or so; more often if you ride in dusty or dirty conditions.

Tip: Use a lightweight oil or wax based lubricants specially designed for bikes. Stay away from motor oil as it is too heavy and will quickly attract dirt and crud. Want a big greasy chain ring mark on your leg? Using too much oil or the wrong kind is a guaranteed way to get one. Light lubrication is the key, and wipe off excess at the end.

2. Lubricate the moving parts of your brakes and derailleurs.

Your bike has quite a few moving metal parts that are vulnerable to dirt and moisture. To keep your bike happy and functioning well, these parts should be lubricated regularly.

Pivot points on the brakes and derailleurs are good examples of the types of places you should target because they are vulnerable to attracting dirt and grit due to their placement on your bike. Here's a diagram of common lubrication points on a bike⁴, but you can spot many of these places just by watching your bike in action and seeing where metal parts move against and around each other.

For instance, think about your brakes. On most road bikes, they are mounted on a bolt on the frame above your wheel. When you squeeze the lever, the brake pivots around this bolt as it contracts. It's these places where you want to apply a couple drops of oil.



3. Inspect your brake pads.

A quick check of your brake pads will often reveal potential problems that are easy to fix. You want to check:

- Are your brake pads properly aligned?



Brake pads are the little rubber things that clamp down on your rims to slow you when you squeeze the brake levers. Make sure they are hitting the rims evenly, and aren't either rubbing the tire or missing your rim partially or completely.

- Are the brake pads toed-in?

The bike brake pads should also be "toed-in," which means the leading edge of the pads should touch the bike rim first when you lightly apply the brakes. The pads squish a little, and when you squeeze down hard, you should get full contact to the rim. This helps prevent squeaking

- Check for junk embedded in the brake pads

Inspect the surface of the brake pads where they meet the rims, and using a pointy sharp instrument like a knife, pick out any bits of sand or metal that may have become embedded in the pad. Removing this grit prevents the pads from wearing and scratching your rims and helps them provide more even and consistent stopping power.

4. Check the pressure on your tires.⁶

One of the simplest things you can do is the one that can have the greatest effect, and that surprisingly, people most often overlook.

Paying attention to keeping the proper level of air pressure in your tires accomplishes many things:

- Makes pedaling easier
- Protects your rims from damage
- Prolongs the life of your tires
- Makes it much less likely that you'll get flats.

How to Change a Flat Tire

Remove Wheel From Bike

1 of 10



Remove the wheel from your bike.
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The first and most basic bike repair you need to know is how to fix a flat tire. It's quite simple and all you'll need are tire tools, a replacement tube and a pump.

Tire tools are cheap and light. They're about the size and shape of toothbrush handle, and it's a good idea to carry a couple with you whenever you ride. They're easy to fit in a small pouch under your seat along with a spare tube, and with a frame-mounted pump, you're all set.

The first step is to take the wheel with the flat off your bike. Do this by loosening the nuts or quick release mechanism that holds the wheel until it slides out. You may need to loosen your brakes to get the wheel off. These often have a quick release mechanism too. If you are removing a rear wheel, it will also have to be lifted clear of the chain.

Remove the Tire from the Rim

2 of 10



Use a tire tool to remove the tire from your rim by wedging the tool underneath the tire and then lifting upward.
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Using tire levers, remove the tire by wedging the tire tool between the tire and rim, and then prying upward to lift the tire away from the rim.

Keeping the first tool in place under the tire, repeat this step about four inches away with the second tool to pull more of the tire over and off the rim. Repeat this step as you work your way around the rim. The one edge of the tire you've been working on should start to come free of the rim quite easily. You can finish this step by simply sliding the lever underneath the tire the rest of the way around the rim.

Separate the Valve Stem from the Rim

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Remove the valve stem from the rim.
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Next, you'll need to remove the valve stem from the rim. This is the metal valve that pokes through the rim used to inflate the tube. Coming from the center of the wheel by the spokes, locate the valve stem and push it up and through the hole in the rim so that it no longer protrudes through the rim.

Take the Tube Out of the Tire

4 of 10



Remove the old tube from the tire.
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Remove the tire and tube the rest of the way. You can usually do this easily by hand, but if you have trouble getting the edge of the tire completely over and off the rim you can use the tire levers again. Once the tire is off, pull the old tube out of the tire. You can then either discard the old tube or attempt to patch it.¹

If your tire is flat because of a puncture that came from hitting a road hazard, after you remove the old tube check the inside of the tire thoroughly to make sure whatever caused the flat -- glass, a piece of metal, etc. -- is not still lodged in the tire to play a nasty trick on you and pop a second tube.

Put the New Tube in Your Tire

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Place the new tube in the tire.
(c) David Fiedler, licensed to About.com

Take the new tube and with it still flat, work it into the tire, laying it where it goes when it is inflated on the rim. Take care that the tube is not crimped or twisted at any point, and that the valve stem points to the center. Some people find that the tube is easier to work with if you put just a little bit of air in it, enough to hold it in the tire.

Replace Tire on the Rim



Replace the tire on the rim, using tire tools when necessary.
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Put the tire and new tube back on the rim by first lining up the valve stem with the hole that it will need to go through on the rim. This is the reverse of what you did in Step 4. You do this by working the first edge of the tire back onto the rim, easing the tube onto the rim at the same time. As you seat the first edge of the tire onto the rim, use your fingers to carefully guide the valve stem back into its hole. Finish putting the first edge of the tire completely on the rim.

When you reinsert the valve stem of the new tube into the rim, be sure that it comes straight out of the hole and not be angled in any direction. Any tilt in the valve stem tells you that the tube is not centered over the hole. You can correct this by sliding the tube and tire around the rim just a bit in the proper direction to correct the tilt.

Seat the Tire Snugly on Rim



Here's the way the tire should look properly seated on the rim.
(c) David Fiedler, licensed to About.com

Use your hands to work as much of the second edge of the tire onto the rim as you can. It will become more difficult as you go, and finally you will need to use the tire levers to put the last part of the tire onto the rim. Do this by wedging the tire tools against the rim below the edge of the tire that still needs to go on, and then working one lever and then another to bring the edge over the rim until the whole tire is seated snugly and comfortably once again inside the rim.

Once the new tube and tire are back on the rim, do a quick check with your eyes and fingers around both sides of the rim to make sure that the complete edge of the tire is inside the rim, and that at no point is the inner tube pinched between the tire and rim or protruding over the rim.

Inflate The Tube

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Inflate the tire to proper pressure shown on side of tire.
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Using the pump, inflate the tire to the pressure recommended on the sidewall.

As you put air into the new tube, be sure the tire is filling consistently. Any uneven inflation that you notice, such as a bubble or highly inflated portion of the tire while another part remains flat, tells you that your tube is pinched or twisted inside the tire and needs to be reset. Correct this by letting the air out of the tube and repeating Step Two, which allows you to look for the spot that is pinched or twisted. Many times you can fix this without removing the tire completely again. Replace the tire as you did in Step 7 and try inflating the tire again.

Put the Wheel Back On Your Bike



Replace the wheel on the bike.
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Put the wheel back on your bicycle, reattaching the nuts or quick release mechanism and resetting the brakes and replacing the chain as necessary. Check to make sure that the wheel is aligned properly, that it is held securely and that it spins cleanly.

Once the wheel is back on, spin it hard once and allow it to turn freely to make sure the wheel is aligned properly. This means no wobbles, no rubbing against the brake pads, and that the axle is seated securely in the drop-outs, which are the slots on your frame that hold your wheels in place.

If you're clear of all these problems, now it's time to go off and ride your bike.



3.Fitting

What is the Proper Position of My Bike Seat - Good Bike Seat Position

Question: What is the Proper Position of My Bike Seat - Good Bike Seat Position

Setting proper bike seat position for your body is an important part of every bike setup. Using the right seat position for your body will help keep your joints healthy, give you better endurance, and more comfort.

As with your seat height adjustment you should learn what seat position your body likes and then use it whenever you have to pedal for any significant time on any bike.

Answer: There are two adjustments to your seats position on the seat post. The first sets the horizontal position of the seat with respect to the bike. The second sets the angular position of the seat.

When setting seat position, the most important thing to consider is your comfort. With that in mind use the following guidelines to steer you in the right direction.

The horizontal position should be set so that when your pedal is at the very bottom of its stroke, the front of your kneecap is directly above the pedal axle.

The seat angle should be set so the seat is generally level. Beyond that your comfort should lead the way. You should feel like the bones in your rear end are doing most of the support work but you shouldn't feel like the seat is trying to push you forward or rearward.

If you are experiencing issues with numbness in the crotch area while you are riding, there is a good chance that a change in your seat position can help fix the problem. This can be greatly effected by the seat itself, but as far as position goes, adding a little forward angle may help.

Proper Bike Fit Can Prevent Pain and Injury

How to adjust your bike fit and position for injury-free cycling

By Elizabeth Quinn

Updated: October 28, 2008

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Knee Position Extended
E. Quinn

Whether you are riding to the corner store or across the country, you should be comfortable on your bike. If you have neck, back, or knee pain, saddle sores, or hand or foot numbness, your bicycle probably doesn't fit you properly. Good bike fit can also improve your pedaling efficiency and aerodynamics and actually make you faster. Here are the basic bike-fitting principles:

Adjusting the Saddle

Your bike seat should be level to support your full body weight and allow you to move around on the seat when necessary. Too much upward tilt can result in pressure points. Too much downward tilt can make you slide forward while riding and put extra pressure on your arms, hands and knees, which can lead to injury.

To adjust the seat height, wear your biking shoes and riding shorts and place your heels on the pedals. As you pedal backwards, your knees should fully extend in the down position. If your hips rock side to side the seat is too high. Now when you move your foot into the proper pedaling position, with the balls of your feet over the pedal, you'll have a slight bend in your knees.

You can also adjust the seat forward and backward (fore and aft position). With your feet on the pedals so the crank arms are parallel with the ground, the proper position will put your forward knee directly over the pedal axle. Dropping a plumb line from the patellar tendon makes this adjustment a bit easier to see.

Handlebar Adjustment

If the handlebars are too high, too low, too close, or too far away, you may have neck, shoulder, back, and hand pain. A proper reach allows you to comfortably use all the positions on the handlebars and to comfortably bend your elbows while riding. There are other, more advanced adjustments you can make, such as changing the handlebar width or height.

Because your body is asymmetric (one leg or arm may be slightly longer or shorter than the other) an ideal bike fit is often a matter of trial and error. The slightest imbalance can lead to pain. Here are some common complaints and possible solutions.

Knee pain is usually associated with a seat position that is too high or low or far forward or back. Improper bike shoe or cleat position can also cause knee pain.

- A seat that is too high will cause pain in the back of the knee.
- A seat too high will also cause your hips to rock side to side, which may cause discomfort.
- A seat that is too low or too far forward may cause pain in the front of the knee.
- Improper foot position on the pedal (or improper cleat alignment) can cause pain on the inside or outside of your knees.



Individual anatomy may also result in knee pain. Cyclists with slight differences in leg length may have knee pain because the seat height is only adjusted for one side. Shoe inserts or orthotics can help correct this problem.

Another cause of knee pain is using too high a gear. Try to use a gear that allows you to pedal quickly, from 70 to 100 strokes per minute.

Neck pain is another common cycling complaint, and is usually the result of riding a bike that is too long or having handlebars that are too low. Tight hamstring and hip flexor muscles can also cause neck pain by forcing your spine to round or arch, and your neck to hyperextend.

Foot pain or numbness is often the result of wearing soft-soled shoes. Special shoes designed for cycling have stiff soles that distribute pressure evenly over the pedal. This also helps you pedal more efficiently. Foot pain can also be caused by using too high a gear, which results in more pressure where the foot meets the pedal.

Hand pain or numbness can be prevented by wearing padded cycling gloves that provide cushioning. You should ride with your elbows slightly bent, not straight or locked. Bent elbows will act as shock absorbers and help absorb the bumps in the road. Changing hand positions on the handlebars can also reduce pressure and pain.

Saddle sores: Finding a bike seat that fits you well is imperative.

There are dozens of bike saddles designed for every rider and riding style. Saddles come in a variety of materials from gel to leather. There are women-specific saddles that are shorter and wider to accommodate a woman's wider pelvis. Others have a center cutout to relieve pressure on soft tissues. You should try several to find one that fits you well.

Your cycling clothing can also cause saddle sores. Cyclists typically wear shorts made without seams — and no underwear — to eliminate sources of chafing and pressure points. Cycling shorts also have padded liners that provide more comfort than street clothes.

FOR MORE RESOURCES SEE www.sheldonbrown.com

He has excellent resources on saddle positioning and derailleur adjusting... as well as a myriad of other information on EVERYTHING bicycling.

All resources in this manual have been created and are freely available at www.bicycling.about.com and are David Fiedler's work unless otherwise cited.