

# BIKE MAINTENANCE

A COMPLETE GUIDE



**BIKUZINE**



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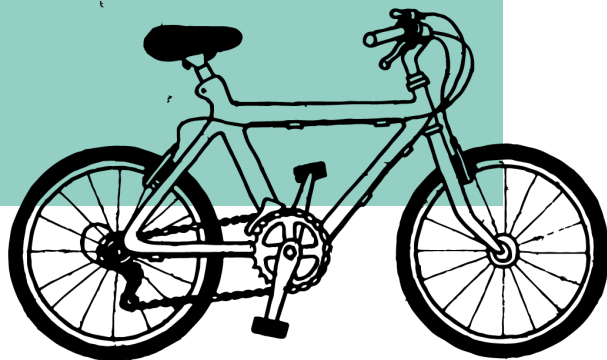
## THINKING ABOUT RIDING YOUR BIKE THIS WINTER?

Awesome!

It's a convenient way to get around and a great way to beat the winter blues.

We've compiled our years of experience both in riding bikes in the winter as well as fixing them!

In this zine we will tell you everything you need to know to get your bike and yourself ready for the months ahead.



# WINTERIZE YOUR BIKE

## **What makes a bike suitable for winter riding?**

**Just about any bike that you can fit winter tires on can be made suitable for riding in the winter.**

A lot of people prefer to ride "a beater" in the winter in order to save their nicer bike for the summer. This could potentially make for a miserable winter riding experience, as riding a **poorly functioning bike in an already difficult season might make your life harder than it needs to be.**

A winter bike needs to be the right size for the rider, so that you are always in control. Make sure you are comfortable on the bike, and change your handlebar and/or stem to a more stable and comfortable position if necessary.

# BRAKES

Some people prefer v-brakes, cantilever brakes, or disc brakes, but the important thing is that your brakes work well so that you can stop safely when you need to.



The main steps to take to “winter proof” a bike are to **grease the seat post, stem, and any threaded part of the bike**, and lubricating any pivot points (derailleurs, brakes, cable housing), and to continue to do so throughout the season. Obviously a huge concern is rust, so if you have a steel frame and you absolutely don’t want it to rust, riding it in the winter is not a great idea. There are some precautions you can take to prolong the life of steel frames in the winter:

Rust check, frame saver, or similar products can be sprayed inside the frame to prevent excessive rust. For the outer surface, if your paint is chipped or cracked in places you can add another layer of clear coat to the frame, or use acrylic nail polish on the chips to protect the bare surface of the frame.



# TIRES



## STUDED TIRES

Studded tires are excellent for riding exclusively on snow and ice. Hard surfaces like asphalt will wear the studs down.



## TREADED TIRES

There are treads specifically designed for snow, but a lot of cyclocross treads made for mud can be helpful in the snow as well. A treaded tire is often enough for city riding in the winter, some people even only use one, usually in the front, to give better traction in steering.




## WIDE TIRES

Wider tires are more stable, but much slower. If safety is your main concern, go with wider tires like a Fat bike.



## NARROW TIRES

Narrow tires have less stability, but roll faster. They can sometimes offer more traction on slushy snowy days because they cut through the slush to the asphalt, allowing you to go faster. If you feel confident handling your bike in snow and bad weather, go with narrower tires.



## INFLATION PRESSURE

Inflation pressure can affect the level of traction that your tires offer. Lower inflation pressure allows more of the tire to contact the road, which gives you more traction. The trade-off is the risk of pinch flats, as well as added rolling resistance. On dry days without much snow, inflate your tires to near the max. On slippery, icy days, deflate your tires to the minimum recommended inflation pressure.

## GEARS

### GEARED BIKES

The advantages of geared bikes in the winter are just about the same as in the summer. You have a range of gears that can help you through tough road conditions, hills, and wind, as well as allowing you to gain speed when the road is flat and clear. The disadvantage is that in the winter, more moving parts means that more can go wrong. **Derailleurs need to be kept clean and oiled to make it through the winter.**

A 1X (one-by) is a bike with a derailleurs in the rear but a single chain ring in the front and is a great option in the winter, offering a range of gears without over complicating things.



## **SINGLE SPEED**

The simplicity of a single speed lends itself well to the winter. Less moving parts means less parts to clean and maintain, less parts to worry about seizing up or wearing out. Choose a ratio that allows you to make it through the hardest parts of your commute, and consider investing in a higher quality freewheel, as these components are particularly sensitive to humidity and cold.

## **FIXED GEAR**

Even less moving parts! Some people swear by fixed gears for winter riding, as the direct connection between your feet and the rear wheel provides a superior sense of control. Brakes and straps or clipless pedals are a must, and some experience riding fixed before the winter hits is a good idea.



## PEDALS

Traction on the road is one problem; traction on your pedals is another! There are a couple options to keep your feet firmly on your pedals.

### PEDAL STRAPS

Platform style pedals with Velcro or leather straps are popular in the winter. Velcro is easier for accommodating changes of footwear. **Pedal straps also allow you to pull up on your pedals as well as push, giving you more power.**

### CAGES AND STRAPS

Might not accommodate large boots, but a classic solution.

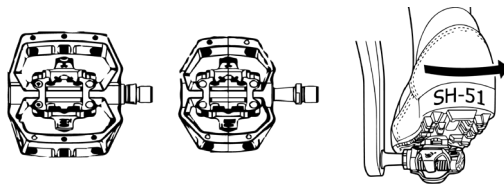
### PLATFORM PEDALS

Many BMX and mountain style platform pedals have pins (removable or permanent) that **provide excellent grip and prevent your shoes from slipping off the pedals.**



## CLIPLESS PEDALS

Clipless pedals, paired with cleats installed on a **winter cycling shoe** are an awesome solution for performance riders and commuters alike, as long as you don't mind bringing a change of shoes wherever you're going. **Clipless pedals hold your foot firmly on the pedal**, and the combination of foot retention and the stiff sole of a cycling shoe provides a lot more power than a conventional pedal.



# MAINTENANCE

## CLEANING & LUBRICATION

### FRAME

The coat of paint on your frame is your first defense against rust. If there are chips in the paint, try covering them up with clear coat (or clear nail polish will do). **Wiping your frame down regularly and keeping it inside where it can dry off after every ride can prevent excessive rust.**

### WHEELS

**A drop of dry lubricant on each spoke nipple can prevent them from seizing up and make truing them a lot easier. Keep your braking surfaces clean** (rims for rim brakes, discs for disc brakes). This improves the performance of your brakes and keeps your rims, pads and discs from wearing out prematurely. Don't use soaps or cleaners that will leave an oily residue on these surfaces.

### BRAKES

Wipe down every now and then and put **a drop of tri-flow or chain oil on the pivots.** Check pads regularly for wear, and wipe them down if they are super gritty.

## **DERAILLEURS**

Same as brakes! **Wipe them down and lube the pivots.** It's a good idea to shift through your complete range of gears every time you ride to prevent your derailleurs from seizing up. This is particularly a problem with front derailleurs that are not frequently used and also tend to get very dirty in the winter.

## **CHAIN/DRIVETRAIN**

**Keep your chain as clean as possible!** Wipe it down and re-lube it once a week if you can. Thicker oils designed for winter have more staying power, but attract a lot of dirt, which can wear your chain out prematurely. Apply oil sparingly (to the chain rivets, not the outer plates) and wipe off the excess. If your chain is kept clean and well lubed, your other drivetrain components (cog/freewheel/cassette, chainrings) shouldn't need too much cleaning, but for extra credit wipe those down with a clean rag every few weeks. If they become very gummed up, a degreaser or cleaning product might be required. Diluted dish soap also works well for this.



**Check your chain wear regularly in the winter.** Gritty, dirty chains wear out faster than clean ones, and riding with a worn out chain can be costly, as it will wear your other drive components as well. There are tools made for checking chain wear that you can purchase, or it can also be done with a ruler.



## **CABLES AND HOUSING**

Cables and housing can be prone to rust in humid weather. A dry spot to store your bike is ideal, and a drop of dry lubricant in cable housing can work wonders. There are also housing ferrules that are lined with a rubber gasket designed to keep water out of the housing.

## **SEAT POST**

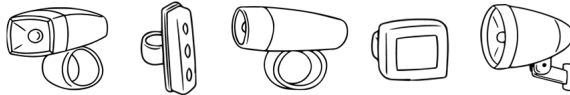
Remove and re-grease your seat post every month or so to prevent it from seizing. If your bike has a quill stem remove it and grease it as well.

# ACCESSORIES

## LIGHTS

Staying visible in the winter is essential. Not only are the days shorter, but a lot of drivers are not expecting cyclists to be out on the road.

The higher powered the lights the better, and reflectors and reflective clothing are a good idea.



## FENDERS

Full fenders are great for staying clean and dry, but can sometimes be a hindrance. Snow can build up between your tires and fenders and slow you down, depending on how much clearance you have. A clip on fender on the rear can be a good compromise, in order to at least keep the telltale signs of winter cycling off your butt.



# CLOTHING

## WINTERIZE YOURSELF



### CLOTHING

An endless amount of clothing and accessories are available for winter riding. The important thing is to stay warm, comfortable, and dry.

**Don't forget that you will warm up as you ride,** it's good to feel a little bit chilly when you start.

That way you don't overheat once you get going.

Breathable, wicking base layers like merino wool will keep you warm and dry without overheating.

Bulky clothing can make it hard to move around and feel comfortable and nimble on your bike.

Wear enough to keep your core warm, but **don't overdress or you will feel restricted in your movement.** Keeping your extremities warm is key.



## FACE & HEAD

Balaclavas or neck/face coverings are important, as well as a hat that **fits well under your helmet**. Covers to go over a helmet are also available, and can be good for cutting the wind. **Goggles or safety glasses** can keep snow and sleet out of your eyes, as well as protect you from the wind.

## HANDS

Gloves allow you full dexterity, but are not as warm as mittens. Lobster gloves are a good compromise. Whichever you prefer, make sure they are windproof. Waterproof is a little less important but worth having for some days. **The best of all worlds is something like a bar mitt, which stays strapped to the handlebar, blocking the wind and adding insulation, but allowing you the dexterity of gloves underneath.**

## FEET

Feet tend to get less blood flow when biking as opposed to walking, so take your winter biking footwear seriously! **A decent pair of winter boots with platform pedals is a simple solution**, with straps if you want some foot retention. **There are also some cycling specific winter clipless shoes, which are very warm and waterproof.** On warmer days insulated shoe covers over your regular cycling shoe can be adequate.

On really cold days, heating packs from the dollar store can save your life! Or at least your limbs.

## WINTER RIDING TECHNIQUES

### **SLOW DOWN**

Especially when cornering. Give yourself more time to stop.

### **SWERVE LESS**

In winter it might be better to hit a pothole than to wipe out trying to swerve around it.

### **KEEP YOUR TIRES FLAT ON THE GROUND**

**Don't lean into corners.** Shift your weight in the direction you would normally lean but keep your bike upright and perpendicular to the ground to give your tires maximum traction (steer more with your handlebars than your body weight). Leaning forward and putting more weight on the front tire can give you more control as well. **On slippery sections, don't stand up to pedal, or you may lose traction on your rear wheel.**

## **WATCH THE ROAD**

scan the road for potential hazards, like patches of ice, slippery sewer grates and metal plates set down during road construction. If you can't avoid them, slow down and coast over them. Avoid braking hard on a slick surface as this could cause your wheels to slip out from under you. If you have gears, shift into a lower gear when you encounter loose snow or ice, as this gives you better traction.







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