FLAT TIRE REPAIR

The #1 bicycle ailment. Once you've tried it, it's fairly easy. You'll need: tire levers and patch kit (plus a new tube if your tube is unpatchable). Getting lots of flats? Your tires may be worn out.

TIRE LEVERS

Turn your pedals and shift the chain to the smallest rear cog (if rear tire).

Release brake cable and carefully turn bike upside-down to rest it on the seat and handlebars.

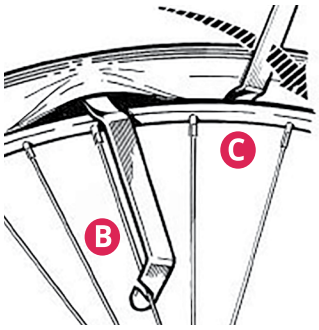
Open the quick release* (or loosen the nut) and remove the wheel from the bike frame.

Fully deflate the tire, and Ⓐ insert a tire lever between tire and rim and Ⓑ hook to spoke; then Ⓒ insert a second lever just like the first one and Ⓓ "unzip" the rest of the tire from the rim.

See box below for PATCHING a Tire Tube instructions.

Carefully inspect inside and outside of tire for any glass particles, or other source of puncture.

Insert new or patched tube (very slightly inflated so it holds its shape) into the tire. Insert valve stem in wheel rim and remount one side of the tire on the rim by hand.



Starting at the valve stem, mount the second side of the tire on the wheel rim. As you work toward the side opposite the stem it will get progressively more difficult. Make sure the tube is not being pinched between the tire and the edge of the rim.

Fully deflate the tire. Using the heels of your hands and thumbs Ⓔ little by little roll the remaining tire over the lip of the wheel rim. This can require quite a bit of hand strength!

Push the valve stem up into the tire, then pull back down. Inflate the tire to about 25 lbs. and check around the edge of the wheel rim to be sure the tire is seating correctly. If there is any bulging, deflate and shift the tube and tire around to get it to seat better, then re-inflate and re-check.

If tire is seating correctly, pump the tire up to the pressure listed on the side of the tire.

Put wheel back on the bike. For the rear wheel, pull derailleur back toward rear of bike and slip chain over the cog. Be sure the wheel is straight once the quick release (or nuts) are tightened, then reconnect the brake cable. Flip bike back over and you're ready to ride!

** Do you know how to safely close a quick release? If not, visit* jimlangley.net.

PATCHING A TIRE TUBE

1. Find the hole in the tube, and use sandpaper to buff the surface of the tube for an area a little larger than the size of the patch
2. Apply some vulcanizing solution and spread it into a thin coat with your cleanest finger
3. Allow to dry (takes longer in cold/damp weather)
4. Peel the foil from the patch and press firmly onto the tube
5. Tube is now as good as new!

PREVENTATIVE BIKE MAINTENANCE

With just a few simple steps, you can keep your bike running safely and smoothly, and extend the life of some expensive parts.

Keep your tires inflated to the pressure listed on the side of the tire. Check weekly. A floor pump with a gauge makes it simple. This will help to avoid flats and make for an easier ride.

Wipe your wheel rims* with a clean rag to remove dirt. This will improve braking and extend the life of your wheels (expensive to replace!). Do this as needed, more frequently during wet weather. Less messy if you wait until rims are dry.

Wipe the dirt and grit off your chain — to do this lean your bike against a wall and rotate the pedals backwards, running the chain through a rag. You can also spray degreaser (like Simple Green) on the rag to help remove any gunk.

Thoroughly dry your chain, then apply oil sparingly to each link in the chain, again while rotating the pedals backwards. Use a chain oil — your local bike shop has what you need. DO NOT use WD-40 on your chain. Let the oil soak in for a few minutes, then wipe off any excess with a rag.

Inspect your brake pads periodically*. If they are worn beyond or near the line on the side of the pad, it's time to replace them. Visit your friendly local bike shop — brake pad replacement isn't expensive, and it's a very wise investment in your cycling safety.

** with disc brakes you can skip this!*

VALVE TYPES: Which one does your bike have?

SCHRADER

Turn collar on tip counter-clockwise to open

PRESTA

BICYCLE MAINTENANCE AND REPAIR RESOURCES

ONLINE

jimlangley.net
Maintenance tips, illustrations, and helpful videos

sheldonbrown.com
This encyclopedic site defies description

parktool.com/blog/repair-help
All facets of bike repair and maintenance

youtube.com/watch?v=58STtUM-Wow
Excellent video on flat repair by Park Tool.

IN PRINT

Zinn and the Art of Road Bike Maintenance
by Lennard Zinn

The Bicycling Guide to Complete Bike Maintenance
by Todd Downs

KEEP TIRES INFLATED

WIPE DIRT OFF WHEEL RIMS

CLEAN AND OIL THE CHAIN

For more information on bicycling, visit:
portland.gov/bike

PBOT
PORTLAND BUREAU OF TRANSPORTATION

portland BY cycle

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