

# FLAT TIRE

## Your how-to guide on changing a flat tire.

For the sake of simplicity, we'll describe how to change a rear flat, since that is more difficult than changing a front flat.



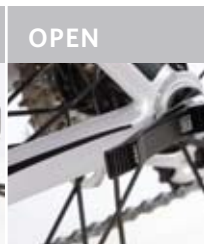
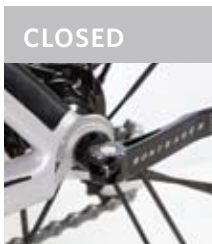
**1** Keeping the bike right side up, shift the bike into the smallest cog.



**2** Open up the brake to allow the tire to pass through freely.



**3** Standing on the non-chain side of the bike, flip the quick release skewer to the "open" position.



### TO USE THE QUICK RELEASE FOR WHEEL REMOVAL:

- |   |   |   |   |
|---|---|---|---|
| <p>1) Open the brakes so that the pads move away from the rim (not applicable for disc brakes).</p> | <p>2) Move the quick release lever to the open position</p> | <p>3) Hold the lever while loosening the nut on the other end of the lever (you won't need to do this for rear wheels).</p> | <p>4) When the nut is turned far enough for both sides of the skewer to clear the safety tabs on the fork, lift the front wheel out of the dropout.</p> |
|---|---|---|---|

# REPAIR

Instead of reaching for the cell phone, why not learn the steps to fix it?



**4** With your left hand, grasp the top tube of the bike and lift the rear wheel off the ground. Since the quick release is open, the wheel will fall out of the dropout.



**5** While still holding the frame with your left hand, reach your right hand down to the small tab found on the derailleur above the jockey wheel. This will cause the chain to slack.



**6** Move the frame away from your body so the chain falls off the cogset. Grab the wheel with your right hand and set the bike down on the non-chain side (also known as the non-drive side).

## TIRE & TUBE REMOVAL

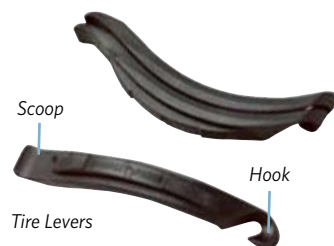


**7** Aligned with a spoke, insert the scoop end of your first tire lever under the bead of the tire. Attach the hook of the tire lever to the aligned spoke.

**8** Approximately three inches from the first tire lever, insert the scoop of the second tire lever and pry one side of the tire (also called bead) off the rim.

### GETTING THE TIRE OFF THE RIM

If the tire is old, you can probably do this with your thumbs. If it's a new tire, or a tight fit, you will probably need tire levers to carefully pry the one side of the tire (bead) off the rim.



**9**

Remove the tube, and inflate it to see what type of puncture you have. Inspect the inside and outside of the tire for obvious gashes or debris lodged in the tire.

## TIRE & TUBE RE-INSTALLATION



**10** Take your new tube and blow a small amount of air in it to give it shape.

**11** Insert valve stem into the hole in the rim, and feed the tube back into the tire.



**12** Make sure one bead (or side) of the tire is mounted all the way around the rim. For the second bead, start at the valve hole and push the tire on with both hands, traveling in opposite directions around the rim. It will get increasingly tight as you get closer to being done. Strong thumbs help! If you are stuck, your tire lever can help muster the last bit of tire on. Use this only as a last resort, as you must be careful not to pinch your new tube with the lever.

**13** Inflate the tube to give the tire shape. Inspect to make sure tube isn't sticking out. Inflate to psi.

### TIRE PSI: MOUNTAIN & ROAD TIRES



The psi rating range on the side label of mountain bike tires is just that — a range. Most riders over-inflate their tires for off-road mountain bikes out of fear of getting a pinch flat. For most riders a psi setting of 35-40 is fine. However, going too low in psi can lead to side wall cuts much like a tube pinch. So play with psi pressures to find the optimum level that will give you the best traction, control, and protection for the trail you ride on most.

Road bike tires can also be over-inflated. Tires are a form of suspension and over inflated tires may benefit you with fewer pinch flats but will slightly reduce your traction and therefore, speed. For example, instead of 120psi go with 100-110. You will gain traction and allow the tire to roll over small imperfections, giving you a smoother ride that is just as fast, if not faster, over the long haul.



## WHEEL REINSTALLATION



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Put the wheel back through the dropouts with the quick release lever on the left, or non-drive side, of the bike.



**15** Line up the chain and lay it on the smallest cog of the cassette. Click the dropout into the quick release part of the wheel.



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Hold the quick release lever in the open position while tightening the nut on the right side of the bike. When you start to feel resistance, move the lever to the half open position and continue turning the nut. Once you feel that you have tightened the nut sufficiently, move the lever into the fully closed position. The trick is to make sure that the skewer is hard enough to close that it leaves an impression on your hand, but you don't want it to be so hard that you can't open it again. Make sure the lever is not pointing toward the front of the bike.



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Finally, close the brake quick release to engage the brake pads closer to the rim.



Note: Protect yourself from puncture flats with Bontrager self-sealing tubes. Small holes are sealed instantly. Also, placing a Bontrager Hard-Case tire on your road bike or pavement bike will dramatically reduce the risk of flatting.

## notes