

## Repair a Flat Tire



O.K. You think you have a flat tire. You may need these tools to fix it: tire levers, tube or patch kit, pump and maybe a presta adapter. First check to see if the bead has come off of the rim or if the bead has worn thru to the tube perhaps by rubbing on the brake pad. Sometimes the bead can stretch and come off in which case you may need a new tire. Also, if a bike sits for awhile the tires may just go flat and need to be pumped up again. Also, check the valve stem to make sure that it is tight (use a valve stem tool if you have Schrader stems) and that the air is not leaking here.

Remove the wheel from the bike. Loosen both axle nuts or the quick release lever and disengage the brake cable so that the tire will pull off between the brake pads. For the back wheel, shift the chain onto the smallest sprocket, grab the derailleur body and pull it toward the rear of the bike, and remove the wheel.

Remove the tire from the rim. Work the tire levers about a half-inch underneath the bead starting at a point on the wheel opposite the valve stem. Use leverage to pull the tire from the bead and lock the other end of the lever on a spoke. Take a second lever and work it about an inch from the first and push it to push off the bead, or lock it on a spoke and use a third lever. Work off one side of the bead and remove the tube.

It is recommended that you install a new tube rather than trying to patch the tube on the trail. If you're installing need a new tube make sure that you get the right size and the correct stem type.

Check the inside of the tire for thorns, glass, metal fragments, etc.. When you are sure it is clean, move on to the tube. Pump it up a little and listen carefully for an air leak, or submerge it in water and look for bubbles. The hole, or holes, can be verified by a little saliva which will bubble if placed over the hole.

Rough up the area of the tube a little with the sandpaper in the patch kit where the hole is. Apply a glueless patch or apply enough glue to cover the size of the patch. Wait five minutes for the glue to dry and then apply the patch firmly to the tube. If the hole is on a seam, or ridge in the tube, the patch may not hold as well. You may need a new tube. Wait a few minutes for it to bond. Then pump up the tube slightly.

Place the tube back in the tire starting at the area of the valve stem. Center it carefully or you will risk damaging the stem and ruining the tube. Work the tube all the way into the tire and then begin to work the bead back onto the rim. You can do most of this by hand and complete the job using the tire levers, but be sure to not pinch the tube in the process.

Inflate the tire. Some pumps require a great deal of energy to get a decent air pressure. Most new pumps work with both presta and schreader valves but, you may need an adapter if you have the presta. The adapter is usually placed on the stem after the stem valve is turned loose.

Install the wheel back on the bike and check the brake cables and alignment of the wheel in the dropouts and retighten everything.

Go check it out and ride. It may be O.K. or it may still loose air again after a few hours or days. If this happens then you may have pinched a hole in the tube, the patch may have failed, the valve may be loose, you may have had more than one hole, or the item that caused the flat may still be in the tire!!!

Check your air pressure with a pressure gauge before each ride and set at your favourite pressure. This depends upon the terrain, whether you have suspension, or personal preference.

Make sure you have rim tape on the inside of the rim to cover the spoke nipples. Always carry the necessary tools with you on your ride so that you can repair a flat.