

Fixing a flat tyre

Outlined below is some general information and basic steps on how to fix a flat tyre on a bicycle.

Basic tool kit

To take with you on the bike...

- Saddle bag
- Tyre levers (x 3)
- Spare tube
- Tyre/Tube Repair Kit (optional)
- Pump (small)
- Multi-tool
- 15mm spanner (for bikes without 'quick release' wheels)
- Money (in notes)
- Mobile phone

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Step 1 - removing wheel from bike

- Choose a safe and appropriate location to repair the flat tyre - lay out tools and other items required.
- Position bike and widen brake pads in preparation for removing wheel. If rear wheel, adjust gears so chain is running on smallest chainring of cassette and largest chainring of pedals.
- Open quick release lever and remove wheel. (Loosen nuts with 15mm spanner if nuts are used). If rear wheel, you may need to carefully manipulate derailleur to clear chain from cluster.

Step 2 - removing tyre and inner tube

- Remove valve cap and support guide - release any remaining air from tube.
- Use tyre levers (required in most cases) to begin the process of removing the tyre from wheel. Wedge the end of the first tyre lever between the tyre and the rim. Use it to lever the bead of the tyre over the edge of the rim. Try to avoid pinching the tube against the rim and tyre.

- A little further along the rim (hand span away), use the second tyre lever and repeat the process. Continue the process with the third lever and so on, until tyre bead can be removed by hand.



- Once one side of the tyre is off, remove inner tube and tyre from rim - remove inner tube from tyre. Position tyre for easy reference to potential puncture site.



Step 3 - locating puncture site

- Inspect inner tube for puncture site. If required, inflate inner tube and listen/feel for escaping air. Use location of puncture site on inner tube to help check for location of potential damage to tyre.
- Look at the outside of the tyre while feeling around the inside (carefully) to see whether the puncturing object is still stuck in the rubber. Remove object/s to avoid a future puncture.

Step 4 - repairing inner tube

See instructions included in Tyre Repair Kit.

Step 5 - reinstalling inner tube & tyre

- Check the rim strip, the rubber, cloth or plastic covering over the spoke nipples to ensure it is in good condition and in proper position.
- Replace one side of tyre onto wheel. Fold back tyre at valve hole and insert valve stem of inner tube. Carefully install remainder of tube into tyre (tube may need slight inflation for ease of positioning).
- Once inner tube is in position, replace other side of tyre onto wheel using hands only where possible.
- Check valve stem position – adjust if necessary.
- Inflate tube using pump - tyre pressure should be firm.
- Replace valve support ring and cap.

Step 6 - reinstalling wheel onto bike

- Align wheel with front forks/rear support and brake pads. If rear wheel, manipulate derailleur and align chain with smallest chainring of cluster. Position wheel axle in supports.
- Adjust levers and close quick release (tighten wheel nuts with 15mm spanner). In the case of quick release levers, ensure there is adequate tension to lock the wheel in place.
- Adjust brake pads - check rotation/alignment of wheel and brake function.

Handy hints

- Ensure you carry the necessary toolkit to effect a tyre/tube change.
- Try a tyre/tube change as a drill at home first for practice.
- It's worthwhile taking the time to be quite thorough when checking for puncture location/s and causes.
- If repairing a Disk Brake wheel do not squeeze the brake levers once the wheel is removed to fix the flat tyre. This will cause the brake disk pads to come closer together and the wheel may not fit and the disk rotor will have less clearance to the disk brake pads.
- Check tyres regularly for wear, as well as embedded foreign objects e.g. glass fragments. These types of foreign bodies tend to work their way in over time, creating inner tube punctures if not removed.
- Replace worn tyres.
- If changing a flat on the rear wheel, adjust the gears so the chain is running on the smallest chainring of cassette and large chainring of pedals. This will make removing the back wheel much easier, and will help you remember which chainring the chain was running on when replacing the wheel.

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