

## How to Mend a Puncture

### You will need:

- A puncture repair kit or a spare inner tube to fit your wheel.
- At least two tyre levers.
- A spanner to fit nuts, unless you have quick-release wheels.
- A bicycle pump suitable for your inner tube.

### Stage 1. Remove the wheel

Undo the wheel nut or the quick-release lever and remove the wheel. You may need to lift the mudguard stays and let the air out of the tyre to get it past the brake blocks. Look at the tyre for the cause of the puncture (e.g. broken glass) and remove it.

### Stage 2. Remove the inner tube

Let out any remaining air. Starting opposite the tyre valve, insert a tyre lever under the edge of the tyre and lever it over the rim. Hook the other end of the lever onto a spoke; watch that it does not spring out. Insert a second lever a couple of inches further along the rim. You should be able to run the lever all around the rim to lift the edge of the tyre off the wheel. If you are not, use a third lever, or reposition the first one and repeat around the tyre until you have succeeded.

Be very careful with tyre levers as they might puncture the inner tube.

The inner tube can now be removed, find the hole, thym the tube and mark

Undo and remove the nut on the valve, push the valve through the rim and carefully pull out the inner tube.



### Stage 3. Find the puncture

Inspect the inside of the tyre for damage, or glass, etc. and remove anything you find. A tyre that is badly damaged needs replacing. If possible, fit a spare inner tube (go to Stage 5) and repair the punctured one at home. If you need to repair the punctured tube, inflate it and listen for escaping air. To find the hole, put a little water, or a wet finger; where you think it is. Escaping air should make the water bubble. If you cannot find the hole put the inflated tube into water and look for air bubbles. Once you have found the hole, dry the tube and mark it with chalk or a felt tip pen.



#### Stage 4. Mend the puncture

Follow the repair kit's instructions. Roughen the area around the hole with sandpaper. Then spread adhesive on the area, large enough for the repair patch. Wait until the adhesive has become tacky, or for some types of glue, to dry completely. This will take about 10 minutes. Peel the backing paper off the repair patch and press the patch onto the glued area. Hold it firmly in place for 5 minutes (or longer if the instructions say so) and ensure the edges have been glued down. Grate chalk dust or talcum powder over the patch to stop it sticking to the tyre.



#### Stage 5. Replace the inner tube and tyre

Pump up the tube and wait for a few minutes to see if the hole has been repaired. If not, there may be a second puncture or the patch may not be stuck down fully. In which case, it will need replacing.

It is easier to put the inner tube back if it is pumped up slightly. Replace one edge of the tyre inside the rim. Then push the valve stem of the inner tube through the hole in the rim and fit the nut back on the stem. Don't tighten it fully yet. Push the rest of the inner tube inside bit by bit, working your way around the tyre from each side of the valve. Be careful not to damage the tube. Now fit the other edge of the tyre back inside the rim. Start by pushing the valve stem halfway back through the rim hole to prevent the tube getting pinched by the tyre edge.

Push the tyre edge inside the rim beside the valve and work around the tyre pushing the edge inside with your thumbs. Work on both sides of the valve equally so that the last section is directly opposite the valve. It will be hard to push the last bit inside, but it is better to use your hands rather than tyre levers which might puncture the tube. Fully tighten the valve stem nut.



#### Stage 6. Replace the wheel

Replace the wheel inside the frame and then fully inflate the tyre. Tighten the wheel nuts or quick release lever. Check that the wheel spins round evenly and freely, the brake blocks are in the correct position and the chain is not too loose or tight. Before riding the bike re-check to make sure the nuts or the quick release lever are fully tightened.