

## Gear up for your ride!

- 1 \$5 in change for emergencies - like finding an ice cream store.
- 2 Cell-phone - just in case.
- 3 Plenty of water - staying hydrated is *important*.
- 4 Energy bars.
- 5 Sunscreen and sunglasses.
- 6 Small first-aid kit
- 7 Small, bike-focused toolkit.
- 8 Patch kit.
- 9 Disposable camera.
- 10 Map of the area.
- 11 A friend - a good substitute for a map, since you can blame the friend if you get lost.

## Consider this:

- 1 What's the weather going to be like?
- 2 Where will you go?
- 3 Do you have the owner's permission to ride on the land?
- 4 If your bike breaks down, are you prepared to hike back?
- 5 Does anyone know where you're going and when you'll be back? (Search and rescue teams appreciate having at least general directions!)

## Need more help?

- For an in-depth guide to mountain bike maintenance, please see *Zinn & the Art of Mountain Bike Maintenance*, by Lennard Zinn, VeloPress. 1996.
- See our other fine Mountain Biking guides, such as:
  - *Replacing a Flat Tire: A Novice's Guide*
  - *Patching a Tube: A Novice's Guide*
  - *Which Mountain Bike Is Best for You? A Novice's Guide*



### See us for all your bike and bike part needs:

Dakota Hatch's Cycle Shop  
25 Jessie Street  
Wellington, New Zealand  
+64 (04)-385-1327



# Fix That Flat!

## A step-by-step guide

### 1 Assemble tools and parts needed:

- 1.1 Two tire irons.
- 1.2 Bike pump.
- 1.3 Spare tube.
- 1.4 A little patience.

### 2 Remove the wheel from the bike frame.

- 2.1 Flip the bike upside down and balance it on the seat and handlebars. If you have chosen a relatively flat piece of ground and keep your front wheel straight, your bike will be stable.
- 2.2 If fixing a rear wheel, remove the chain.
  - 2.2.1 Change into top gear. The chain will now be on the smallest gear.
  - 2.2.2 Lift the chain off the top gear. (There is very little tension on the chain, so this will be easy.) The chain will still be attached to the derailleur (which is attached to the frame), but it will no longer be resting on any part of the wheel.
- 2.3 For either wheel, unhook the brake cable from the appropriate cantilever.
  - 2.3.1 Squeeze the brake cantilevers together. This will create some slack in the brake cable.
  - 2.3.2 Use the slack in the cable to unhook it from whichever cantilever allows it. It will remain attached to the other cantilever.
- 2.4 Loosen the wheel by flipping the quick-release lever on the skewer. The wheel will now be loosely resting on the frame.
- 2.5 Remove the wheel.

### 3 Deflate the tube.

- 3.1 Unscrew the valve nut. The nut will remain attached, but the valve can now be depressed easily.

- 3.2 Depress the tip of the valve. Air will begin escaping. You will hear a whistling sound if there is any air left in the tube.
- 3.3 Continue to depress the valve until you can no longer hear air escaping.

### 4 Remove the tire.

- 4.1 Insert the flat end of both tire irons between the rim and the tire. They should both be on the same side.
- 4.2 Lever each tire iron outwards in the direction of the spokes until the tire pops free of rim on one side.
- 4.3 Hook one of the tire irons on a spoke to keep it in place and slide the other tire iron around the circumference of the rim. One entire side of the tire is now freed from the rim.
- 4.4 Completely separate the tire from the wheel.

### 5 Remove the tube.

- 6 Inspect the inside of the tire for any sharp objects. If the flat was caused by a puncture from a nail, thorn, or other sharp object, it may still be embedded in the tire. If you see anything, carefully remove it.

### 7 Partially inflate the new tube.

- 7.1 Unscrew the valve nut.
- 7.2 Attach the bike pump to the valve.
- 7.3 Pump only until the tube holds its own shape.

### 8 Replace the tire.

- 8.1 Place the partially inflated tube onto the rim, with the valve inserted through the rim's valve hole.
- 8.2 Place the tire over the tube, tucking the edges of the tire into the rim on one side.
- 8.3 Add air until the tube is firm.
- 8.4 Secure the tire with a tire iron by levering the still-free edge of the tire into the rim. The edge of the tire will be completely inside the rim on both sides.

- 8.5 Fully inflate the tube. The tire is now rock-hard to the touch.
- 8.6 Tighten the valve so that air cannot escape.

### 9 Reassemble the bike.

- 9.1 Replace the wheel onto the bike frame.
- 9.2 If fixing a rear wheel, replace the chain.
  - 9.2.1 Lift the chain back onto the top gear.
  - 9.2.2 Spin the pedals. The wheel should turn easily.
- 9.3 For either wheel, hook the brake cable back onto the cantilever.
  - 9.3.1 Squeeze the brake cantilevers together.
  - 9.3.2 Use the slack in the cable to hook the end of the cable into the slot in the free cantilever. The cable is now attached to both cantilevers.
- 9.4 Spin the wheel. The wheel will turn freely.
- 9.5 Tighten the skewer by closing the quick-release lever.
- 9.6 Place the bike right-side up.

### 10 Store all tools.

### 11 Enjoy your ride. You've earned it!



Ready to go again!