

Mechanical!
The Hands-On
Flat-Fix & Roadside
Repair
Clinic



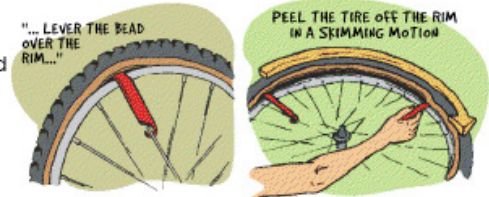
Safety Check Before you Ride:

- **Steering:**
 - Headset loose?
 - Stem loose?
 - Bar end plugs?
- **Brakes:**
 - Should grip quickly and easily
 - Do they feel stiff or girtty when applied?
 - Are brake pads worn down? Loose?
 - Cable condition: are they rusting? frayed?
 - Brake pads aligned correctly on wheel?
- **Wheels:**
 - Out of true?
 - Are quick releases or nuts tight?
 - Loose hub adjustment?
 - Broken spokes?
- **Tires:**
 - Fully inflated?
 - Condition: dry and cracking/ Are they split?
- **Drive Train:**
 - Chain – dry/rusted? Damaged? Worn?
 - Pedal or crank arm loose?
 - Damaged chainrings?
- **Seat:**
 - Seatpost loose?

I have a flat! What now?

1 Take off the wheel
You may need to detach your brakes or let out a little air pressure.

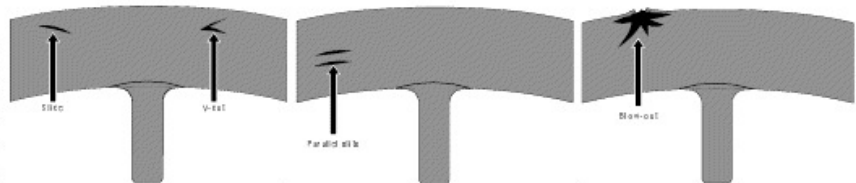
2 Take off the tire
Starting opposite the tube's valve, work your way the tire around with tire levers.



3 Pull out the tube
Starting opposed the valve, gently remove the tube

4 Find the leak
Pump up the tube so that it's a little bigger than the tire. Hold it up to your face, stretching and turning it all the way around while you listen and feel for the leak. When you find the leak, circle it with a pen.

5 Determine the cause!
Pump up the tube so that it's a little bigger than the tire. Hold it up to your face, stretching and turning it all the way around while you listen and feel for the leak. When you find the leak, circle it with a pen.



A single slice, V-cut, or pin-point puncture is usually from a foreign object (glass, metal, etc)

CHECK THE TIRE!

Parallel slits (aka Snake Bites) are usually from low tire pressure. Pump up your tires!

NO NEED TO CHECK THE TIRE

Blowouts are caused by improperly mounted tires or a hole in the tire.

CHECK THE TIRE!

6 Prep the patch
Use your patch kit's sandpaper/scrapper to rough up an area around the hole in all different directions. Make sure the rough area is **at least** the size of the patch you're using: bigger is better.



7 Apply the glue
Put a small glob of glue onto the tube and spread it over an area **a bit bigger (really important!)** than the size of the patch you're using. Remember: **wait for the glue to dry before you apply the patch!**

8 Apply the patch
When the glue is dry, gently peel off the foil from your patch and apply it carefully over the hole in your tube (the side that was stuck to the foil is the side that's going down on your tube).

Try to centre the patch over the hole, starting at one edge and working your way across to avoid folds or air pockets.

Make sure the patch is on an area that was sanded & glued!

Don't worry about the clear plastic - it does no harm if you keep it on, but pulling it off could pull off your patch!

9 Stick & Wait
Press down firmly all around your patch to make sure it's well sealed. Give it a few minutes before re-inflating, and don't fill it to full pressure until it's properly reinstalled inside the tire on the wheel.

10 Put everything back together

Start by putting **one side** of the tire bead on the inside of the rim.

Put one or two pumps of air in the tube (so that it holds its shape). Put the valve in the rim's valve hole, and push the tube back into the tire all the way around - being careful to avoid folding and pinching the tube.

Put the other side of the tire bead on, using tire levers when necessary, being careful not to punch the tube.

Reinstall the wheel, hook up your brakes, and inflate the tire til it's hard.

Helpful Tips Before You Go:

- **You will need:**

- Portable pump, tire levers
- Spare tubes and/or patch kit
- Suggested: Allen key multi-tool, 15mm wrench (if you don't have quick-release wheels)

- **Want to learn more?**

<http://www.parktool.com>

<http://www.mec.ca> – click on Learn and follow to
Bike Repair

<http://www.sheldonbrown.com>

*...or rent tools and repair stand (and assistance!) at
Community Bicycle Network:*

<http://www.communitybicyclenetwork.org>