

6 for the pros

These repairs require know-how

1 Rear cassette

The problem: Your chain is slipping from sprocket to sprocket on the rear cassette. Upon inspection, you notice that some of the teeth appear rounded and worn. It's time for a new cassette.

What to do: Keeping your chain in working order will prolong the life of the drive train's other components. Because changing the rear cassette requires specific tools — a chainwhip, a locking tool, and an adjustable wrench — and is somewhat complicated, it's probably best to leave this to the experts.

2 Rear derailleur

The problem: The rear derailleur is the mechanism that guides the chain to the appropriate gear when you shift. Check to make sure your bike shifts smoothly through all its gears, while looking down at your rear derailleur. Does the derailleur appear bent or look otherwise out of line? Is it guiding the chain where it's supposed to go?

What to do: Because the rear derailleur has several adjustment points — barrel adjusters and various screws — it's probably best to leave a seriously out-of-line derailleur for the experts.

3 Bottom bracket

The problem: The bottom bracket is the mechanism that allows the crank to spin freely when you pedal. As long as there's no side-to-side movement, and it doesn't make any grinding or clicking sounds when you pedal, it's probably good to go. If the opposite is true, you have a problem.

What to do: To the uninitiated, the bottom bracket is a potential Pandora's Box. It requires specialized tools, know-how and patience to replace or repair. Best to get thee to a bike shop.

4 Wheels

The problem: Spin the wheels. If they wobble side to side, rather than spinning straight, they need to be trued.

What to do: Unless you have the right tools (truing stand, dishing tool, etc.) and have had some experience doing this sort of thing, it's best to have professionals do it.

5 Spokes

The problem: Inspect your spokes. Check to see if they all feel reasonably tight. If some feel loose, you'll need them tightened.

What to do: As with truing, unless you know what you're doing and have the proper tools (such as a tensiometer and a spoke wrench), this is probably best left to professionals.

6 Suspension forks

We'll leave suspension-fork adjustments and repairs to the wrenches who earn their keep in bike shops.

Get your ride ready

It's time to dust the cobwebs off of your bike and get it back on the road. But first, you'll need to give your bike a thorough once-over to ensure that it's safe and ready to ride.

Get a little help

These require a little experience

1 Front fork/headset

The problem: The headset is a bearing system that connects your fork, stem and handlebars to your frame, and allows the handlebars to turn freely. As long as your fork turns easily, your headset is adjusted properly. However, if it is rough, or it feels like there is too much play (something is loose), your bike might be a candidate for a headset overhaul or adjustment. The headset bearings are particularly susceptible to dirt and water.

What to do: The headset and fork work in tandem and, as with many bike components, if you're new to bike repairs it's best to have a friend or shop mechanic guide you through it the first time so that you don't end up making the problem worse. You'll need a headset wrench, hex wrench, mallet and some very careful inspection and/or replacement of ball bearings.

2 Front derailleur

The problem: The front derailleur shoves the chain from one chain ring and onto another. It's fixed to the frame, and is somewhat protected by the chain rings, so it's less likely to be affected by any kind of impact. If the chain isn't moving easily between the front chain rings, it could be a problem with the front derailleur.

What to do: It's probably best to let a shop mechanic — or experienced friend — walk you through it.

With derailleurs, "if you're just guessing and randomly turning screws, it's easy to make things worse."

— Paul Priest, service manager at Recycled Cycles, Seattle

With chain wear, "a sixteenth of an inch off is OK. If it's an eighth of an inch off, it's time to get a new one."

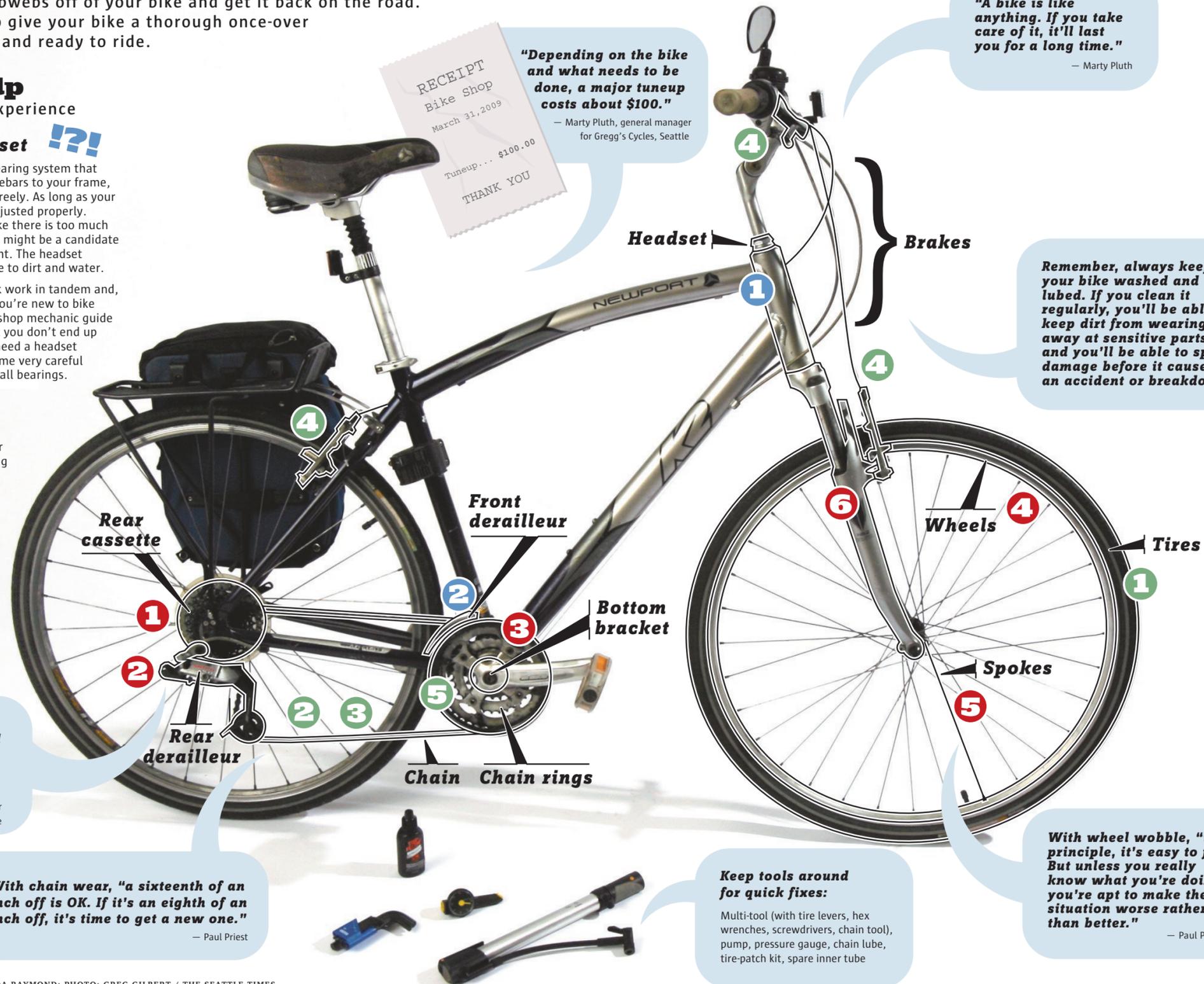
— Paul Priest

"Depending on the bike and what needs to be done, a major tuneup costs about \$100."

— Marty Pluth, general manager for Gregg's Cycles, Seattle

"A bike is like anything. If you take care of it, it'll last you for a long time."

— Marty Pluth



Headset

Brakes

Remember, always keep your bike washed and lubed. If you clean it regularly, you'll be able to keep dirt from wearing away at sensitive parts, and you'll be able to spot damage before it causes an accident or breakdown.

Do-it-yourself

You can do these repairs at home

1 Tires

The problem: If your bike has been sitting unused all winter, your tires will likely be soft or flat.

What to do: Inflate them to the recommended pressure (it's written on the side of the tire). Check for wear. Are the tires cracked on the sides? Is the tread worn down to nothing? If so you can easily replace them. If the tire won't inflate, or loses air quickly, you might need to replace a tube. To replace a tube or tire, you'll need to remove the wheel completely from the frame. Use two tire levers to remove the old tire and install the new one, or a patch kit to repair any holes in the tube. You'll need an air pump to inflate the tire.

2 Chain lube

The problem: Chain looks dry and doesn't move easily.

What to do: Use a lubricant made specifically for bicycle chains, with a drip applicator. Apply a few drops of lubricant to the rivet (not the plates) as you turn the pedals. Lubricate each rivet only once. Turn pedals to allow lube to work into the pivots. Wipe off any excess with a clean shop rag. Too much lube attracts dirt and gunk.

3 Chain wear

The problem: As a bike chain wears, it becomes stretched out and needs to be replaced. A stretched chain wears down your sprockets.

What to do: Measure from the middle of one rivet to 12 inches along your chain. The 12-inch mark should be right in the middle of another link. If it's more than an eighth of an inch off, the chain should be replaced. Inspect for twisting, dents, worn rollers, and rivets that stick out. Make sure there is equal "play" at each link.

To remove the chain, you'll need to use a chain tool to remove one rivet. Attach the new chain using the supplied rivet or master link and the chain tool. Make sure it is the correct length.

4 Brakes

The problem: Worn or misaligned brakes can be dangerous. Check the brakes to make sure that they stop the wheel. Then check to make sure the pads are grabbing the rim, not the tire.

What to do: If the pads grab the tire, you'll need to adjust them, moving the pads so that they make contact with the metal rim instead. Inspect the brake cables. If they are worn, frayed or rusty, they may need to be replaced. Check the brake pads for wear. Most pads have a line to indicate when they should be replaced. Most of this work can be done with common household tools (a hex wrench and a crescent wrench).

Using a hex wrench, adjust the brake pads until the wheel spins freely and the brakes easily stop the wheel.

If your bike has disc brakes, it's probably best to take it to a shop.

5 Chain rings

The problem: Your chain rings won't wear out as quickly as your rear cassette, but they do deserve inspection. Replacing them is fairly easy and requires only a hex wrench and a little elbow grease.

What to do: Inspect the teeth to ensure they are not worn down. Make sure they are not bent to one side or the other. Bent teeth can be realigned carefully using a crescent wrench.