



Your Guide to Outdoor Recreation & Active Travel

SHOP AT GORP

Home Destinations **Activities** Community Gear Plan a Trip Marketplace Books

Clubs Events Trail Finder Book a Trip Experts Buy Gear

Join FREE Contests Screensavers E-Cards Newsletters Search: **GO**

January 13, 2007

[Join GORP/Login](#)

- [add](#) to favorites
- [email](#) to a friend

Search **GO**

[Advanced Search >>](#)

Biking Menu

- [Biking Home](#)
- [Where to Bike](#)
- [Skills/How-to](#)
- [Gear Guide](#)
- [Packing List](#)
- [Book Your Trip](#)
- [Web Links](#)
- [Essential Library](#)

Biking Community

- [Expert Answers](#)
- [Discussion Boards](#)

Gorp Tools

- Trail Finder
- Park Poll
- Club Finder
- Event Finder

Home : [Activities](#) : [Biking](#) : [Expert Answers](#)

ACTIVITIES

Expert Chain Gang 

Expert Answers

Truing Your Wheels

Erik's Question.

How do I true my wheels? What tools do I need? Are they really expensive?

Ethan Gelber's Answer.

Truing your wheels is easier than it sounds, but also much, much harder than it seems. Whereas many practiced tinkerers discourage new cyclists from attempting this operation, I have always encouraged it. How else are people going to learn that they can do it themselves? And where else are they going to get the routine practice and experience they will need to get good at it? That said, truing a wheel is not easy. And, if you are not systematic and careful, you can do much more damage than good. As with all complicated things, your first attempts should be under the watchful eye of someone who does know what to do and how to do it . . . and ideally on a practice wheel.



[Ethan Gelber](#)

There is one and only one essential tool necessary for truing a wheel. It is called a spoke wrench. It is a small piece of metal designed to fit like a wrench around the squared "nipple" at the rim-end of a spoke (think of the spoke as a screw and the nipple as the thing into which it is screwed). The spoke wrench can then be used to tighten or loosen the nipple and thereby "tighten" or "loosen" a spoke. This manipulation of the spokes is what trues a wheel.

There is another comparatively costly tool that helps with the truing process but is not fundamental to it. This is the truing stand. It is basically a freestanding inverted fork into which you insert the wheel of a bicycle (after detaching the wheel from a bicycle!). Two little adjustable arms can be placed at the level of the wheel's rim on either side of it. These help you to guide your manipulations until the wheel passes evenly and easily between them without rubbing either arm. Now, you can also do this leaving the wheel attached to the

Plan an Active Vacation

Call to plan or book a GORPtravel vacation!
877-440-GORP

Also [Email Us](#) or [Chat Online](#)

Vacation Finder

Regions

Country/State

Activities

GO

Biking Vacations

[Yucatan-Caribbean Multi-Sport](#)
7 days from \$1795

[Biking New Zealand's Coromandel Peninsula](#)
8 days from \$1125

[Tasmanian Cycle Tour](#)
16 days from \$2710

[Cycle Tasmania from Hobart to Launceston](#)
9 days from \$1480

More Biking Trips

Where do YOU want to go this summer?

Select a destination

Save \$100's on your vacation!
Offer ends February 28th!

Biking Books & Maps

- [Adventure Travel Books](#)
- [Topo Software & Maps](#)

GORP'S EXPERIENCE ITALY SWEEPSTAKES

CLICK HERE TO ENTER & WIN!

PerformanceBike

FOR PEOPLE WHO LOVE BIKES

[click here](#)

bike and using the brake pads as guides for your adjustments. It is harder to be precise this way and requires more eyeballing, but it certainly works. Last year was the first time I ever used a truing stand after more than 15 years of getting my hands dirty!

Whether you are using a stand or leave the wheel attached to the bike, you want the wheel to be able to spin easily. This is also a good time to clean the wheel so that the nipples can be easily accessed and adjusted (you may even want to spray lube on the nipples if they are rusted). When you are ready, spin the wheel and look at it lengthwise (not from the side). You will notice that the wheel wobbles — that the metal of the rim wiggles back and forth. The way to correct this is by tightening and loosening the spokes (actually tightening and loosening the spoke nipples) so that the spokes push and pull on the rim in such a way that it is straight and even.

If you look at the spokes of your wheel, you will see that they run from the rim and are rooted to the hub alternately on its left and right side. This alternation is what keeps the wheel straight. Equal pressure from the spokes on the left and right keep the rim stiffly in the center. If the rim is not centered, by adjusting the spokes, you can pull and push and re-center the rim.

After you have spun the wheel a number of times and located the places where the rim is not centered, you will want to use the spoke wrench to make adjustments that bring the rim back into line. There are three very important things to remember.

- Before you begin and after each round of tightening and loosening, squeeze each pair of spokes. Before you begin, this will help you find unusually loose or tight spokes. During the truing process, this will help the wheel to share the readjusted pressures out over the whole wheel.
- Using a spoke wrench and adjusting a nipple is just like screwing in a screw, but the lefty-loosy righty-tighty rule doesn't hold. You need to think of things as if you are looking out from the hub of the wheel. To tighten the nipple (and thus the spoke), you want to turn your spoke wrench to the left (counter-clockwise); to loosen, turn it clockwise.
- Never turn any spoke more than an eighth of a turn until you know what you are doing.
- Never tighten or loosen just one spoke unless you are making minute changes. An isolated misalignment is rarely the result of a single spoke being out of adjustment; if it is, the pressure usually affects the spokes around it. If you tighten one spoke an eighth of a turn, tighten the two nearest spokes on the same side (those nipples two away on either side of the one you are targeting) by a smidgen (a sixteenth of a turn or less).

These are the simple rules for small wobbles that anyone can correct.

If there are major problems — pretzeling, a bump in the wheel that makes it less round, a major wobble — you should either replace the wheel or seek the help of a practiced pro. If a wheel has a bump, you have to take

into account, other more complex issues like overall balance and pressure. This takes time to master and moves you in the direction of wheel building (the process of taking a hub and a rim and slowly lacing spokes into place, tightening them until you have a perfectly round and unwobbly wheel).

[Answer Archive](#) | [Biking Forums](#)



[Home](#) | [Destinations](#) | [Activities](#) | [Community](#) | [Travel](#) | [Gear](#) | [Books & Maps](#)
[About GORP](#) | [Content Syndication](#) | [Advertising](#) | [Writer's Guidelines](#) | [Site Map](#)

All original material and HTML coding © [GORP.com](#)
All rights reserved. [Privacy policy](#).

