

Climbing Technique and Tips

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Increase your cadence

- **Aim for a cadence of 80-100 rpms on the flats and 60-80 rpms when climbing.** A high cadence prevents fatigue over long rides because it spares your muscles by employing your cardiovascular system instead. If you do not have a computer with a cadence function, measure it by counting how many times a single pedal rotates over a period of 15 seconds, then multiply that by 4 to calculate your rpms.
- **Use easy gears.** For even slightly steep hills, shift to a smaller ring in the front and a bigger ring in the back. (Remember, the cogs closest to the bike are the easier gears.) Pushing hard on the pedals in too big a gear is inefficient and increases stress on your joints (and is often is the cause of knee pain).

Pedal in circles

- Imagine that there is a big circle attached to the side of your crankset and try and “trace” that circle with your foot. This helps you to **focus on turning the pedals around**, rather than “mashing” down on them, which wastes energy.
- **At the 5 o’clock position, pull your heel backwards.** Pretend you are scraping mud off the soles of your shoes.
- **At the 9 o’clock position, pull up and kick your feet over the top** of the cranks. Think about pulling your knee up to meet the handlebar — the foot will follow.
- **Keep your feet mostly flat** throughout the rotation, but with some flex in the ankles.
- Practice one-legged pedalling drills to improve technique - start with 30 seconds on each leg and work up to a minute.

Form

- Climbing in the seated position may seem slower than standing, but it uses less energy than standing and, over time, will strengthen your leg muscles.
- When seated, **shift your butt back** on the saddle to engage your quadriceps, the biggest muscles in your body.
- **Relax your upper body.** Drop your shoulders. Flatten your back by dropping your belly. Hold your core stable.
- **Breath!** Open your chest to allow you to get more oxygen into your lungs. On a road bike, move your hands to the tops of the handlebars on steep climbs so you are less hunched over.
- Climbing in the standing position provides maximum downward force to the pedals and gives your butt a break from the saddle. However, it also taxes your cardio system so it will tire you out quicker, so don’t stand all the time. To adjust to the added power when standing, and to prevent drifting backwards, **shift up a gear as you stand** (unless you are already struggling to maintain cadence).

Extra tips

- **Pretend the pedals are feathers.**
- **Change gears before you have to.** You will lose momentum if you shift while overburdened, as the chain will take longer to shift and your legs will struggle to adjust to the faster cadence.
- **Pump up your tires before EVERY ride** to the recommended pressure. This greatly reduces rolling friction.
- Don’t carry unnecessary heavy gear, i.e. lock or panniers.
- Make sure your bike is set up properly for you. For example, a seat that is too high will rob you of pedalling power on uphill.
- Cog options make a difference — if you are often struggling in your easiest gear, you may want to look into changing a chainring (front) or cassette (rear). Talk to your bike store.
- Core workouts and upper body strengthening will improve your climbing form by giving you a stable base to push from.

Descending

- **Use descents for recovery.** “Hammering” down hills actually gives you very little added speed compared to coasting — so save your energy for going uphill!
- **Look further ahead** for oncoming obstacles in your path.
- **Lower your center of gravity.** If you are on a road bike, move your hands to the lower part of the handlebars. Shift your butt back in the saddle to add stability and prevent you from going over the handlebars upon sudden braking.
- **Keep your legs moving** by “soft pedaling” with very light pressure. Spinning your legs will maintain circulation and helps to clear any built-up lactic acid from your muscles.
- On steeper descents, stop pedalling and keep your pedals level and your knees bent to absorb bumps. And **relax!**

Safety on hills

- When you stand while climbing, your bike may drop back a couple of inches. **Don’t follow others too closely on uphill**, and watch out for riders behind you when standing.
- When descending, if there is space to do so, **move away from the curb** so that you have more room to avoid obstacles and to prevent drivers from trying to squeeze by you at high speed.
- If you need to slow down, “caress” the wheel rims by lightly and smoothly pressing on the brakes to avoid jerking motions. Employ the smoother rear brake to make slight adjustments in speed. Use the front brake for more stopping power, but remember to shift your weight back to prevent tipping forward.
- Shoulder check and be aware of your surroundings. **ALWAYS avoid sudden changes in speed and/or direction** if there are other riders or vehicles nearby!