

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.** High cadence allows you to cycle for longer periods of time 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 get 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. (The cogs closest to the bike are the easier gears.) Pushing hard on the pedals in too big a gear increases stress on your joints, and often is the cause of knee pain.

Pedal in circles

- Imagine that there is a circle attached to the side of your crankset and try and “trace” that circle with your foot. This helps you to **focus on simply turning the pedals over**, rather than “mashing” them.
- **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 each leg and up to a full minute.

Form

- Climbing in the seated position may seem slower than standing, but it uses less energy than standing and helps to strengthen leg muscles in the long run.
- When seated, **shift your butt back** on the saddle to engage your quadriceps, the biggest muscles in your body.
- **Relax your upper body**, but keep your core strong, and keep your back flat by dropping your belly.
- **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.
- For more power, and to prevent drifting backwards, **shift up a gear as you stand** (unless you are struggling to maintain cadence). Pull up the handlebar on the same side you are pushing the pedal down on. Sway the bike, not your body.

- **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 struggle to adjust to the faster cadence.
- Avoid shifting gears while pushing hard on the pedals, as this is hard on your chain – try to unweight the pedals during shifting.

Extra tips

- **Pretend the pedals are feathers.**
- **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.
- Performing hill climbing repeats 1-2 times a week will greatly improve your overall fitness and cycling ability.
- 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.** You expend proportionately more energy to increase your speed while descending than while riding on the flats – so save your energy for the uphills.
- **Look straight ahead** for oncoming obstacles in your path.
- **Lower your center of gravity.** If you are on a road bike, ride with your hands in the drops of the handlebars. Shift your butt back in the saddle to prevent you from going over the handlebars should you need to brake suddenly.
- **Keep your legs moving** by free pedaling with very low pressure or speed. This technique maintains circulation in the legs and helps to clear built-up lactic acid from your muscles.
- If you stop pedalling, keep your pedals level and your knees bent to absorb bumps. **Relax.**

Safety

- When you stand while climbing, your bike may drop back a couple of inches, so **don’t follow others too closely** and be aware of riders behind you.
- 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 the bike. **Use a combination of front and rear brakes** to slow down. Employ the smoother rear brake to make slight adjustments in speed. Use more front brake for stopping power, remembering to shift your weight back to prevent tipping forward.
- **ALWAYS avoid sudden changes in speed and/or direction** if there are other riders nearby!