

Proper and Efficient Cycling Skills

Climbing

On inclines last more than 30 seconds grip the tops of the handle bars or gripping at the brake levers and sliding back in the saddle. Keep your cadence supple yet powerful driving your glutes into the saddle, pulling on the handlebars a little for more added power when needed, otherwise stay relaxed in the upper body. Cadence should be above 60 for steeper climbs and above 70 for more gradual climbs.

It is usually best to stay off the drops or out of the aero position on climbs. When you're bent over that low, the diaphragm is compressed making it difficult to breathe deeply. **Placing your hands on the brake lever hoods will open your chest allowing your lungs to expand more.** This works nicely when seated and standing. If you want even more air when seated, place your hands right next to the stem a position that will raise your torso and open your lungs fully.



Cornering

One crazy rule of cycling is that you should never look where you don't want to go. This can be a dangerous problem in corners. If you fixate on the line you've picked to carve the corner, you may ride right out of the turn and off the road.

I recommend looking to the inside of the turn. And don't just turn your eyes. Actually rotate your head slightly so you're looking just to the inside of the line you want to follow around the bend - or in a tight turn, almost at the road's edge or centerline. This will make

it much easier to hold the correct line around scary corners.

When in a corner bicyclists should lean their bikes into the corner and keep the body upright. You should also extend the inside knee down, to lower the center of gravity. To pedal through the corners keep the bike upright while the inside pedal is down.

See "Descending" for more corning techniques, be safe and practice cornering techniques at slow speed until you're comfortable.

Descending

The position when riding downhill is much the same as when riding the flats. Ride in the middle of your saddle, hands placed at the brake levers or on the drops (this provides better control). You should be in a larger or harder gear. Keep the cadence high but be sure you are always in control. Keep in mind safety is paramount. If you are using aero bars safety becomes even more critical as you lose more bike handling control when you're down on the aero bars.

The most important aspect of fast descending is relaxation. Pushing the speed to the point of fear will not help develop descending skills. Work on relaxation and smoothness (no sudden movements, braking or turning) and the speed will follow.

A fast descender will set up well in advance of a corner, on the outside, and braking as needed before entering the turn. Then hit the apex on the inside edge of your riding lane, finally exiting again on the outside (always leaving some room for error and unforeseen hazard). The key is to gradually get into position and smoothly follow a line through the corner.

Use your brakes only up to the beginning of a corner on a descent, **NEVER USE THE BRAKES IN A CORNER**. At that point any traction used for braking significantly reduces the traction available for cornering. If you do have to brake after entering the curve straighten out your line before applying the brakes. If the road surface is good use primarily the front brake. If traction is poor switch to the rear brake and begin braking earlier. In auto racing circles there are two schools of thought on braking technique. One advocates gradually releasing the brakes upon entering the corner, the other advises hard braking right up to the beginning of the curve and abruptly releasing the brakes just before entering the curve. A cyclist should probably combine these techniques depending on the road surface, rim trueness, brake pad hardness, headset wear and the proximity of other riders.



When in a corner on a downhill bicyclists should lean their bikes into the corner and keep the body upright. You should also extend the inside knee down, to lower the center of gravity. To pedal through the corners keep the bike upright while the inside pedal is down otherwise the inside pedal should be up through the corner as the bike is leaning into the corner.

Many cyclists experience a terrifying phenomenon on fast downhills called speed wobble. **What happens is, at a certain speed the bike begins to shake, sometimes wobbling violently.** Many things can cause this to happen and it's not always the bike's fault. So it's good to know ways to prevent and stop it should you experience it. Try this: clamp your knees against the top tube, which braces a main frame member, and should stabilize the bike and stop the wobble. Riders who've experienced wobble learn to always rest a knee against the top tube when descending fast as insurance.

Hand Position

Because your hands do a lot of the work while you're riding, they're prone to fatigue, numbness, etc. **Most problems can be prevented by frequently changing hand positions.** Every ten minutes in fact, you should take another hand position.

There are fewer options on mountain-style handlebars and other upright designs. If you have bar ends, use them. And don't rule out gripping portions of the bar just because they're bare metal. If there's a place to rest your hands safely (always maintain a secure grip), by all means move them there occasionally for a change. For both types of bars flexing the hands periodically can also reduce fatigue and numbness.

Pedaling

Ideally, you should relax and let your feet and ankles assume a natural position while pedaling. But there is one tip that may help smooth your pedal stroke: practice to pull straight back on the pedals when each reaches the 3 o'clock point on the stroke. This drill will only work with clip in pedals.

Most people focus on the downstroke. But this part of the stroke is natural. Even if you didn't think about it, you'd manage fine. **The key to smoothing the stroke and making it as round as possible is training yourself to pull back.** The motion is similar to what's used to scrape mud from the bottom of your shoes. If you want to immediately feel what it can do for you, try it the next time you're riding uphill. Practice makes perfect.

Shifting

Like an auto engine, you're most efficient pedaling at a certain rate, usually from 70 to 90 pedal revolutions per minute. **To maintain this efficiency, shift every time you feel your pedaling rate (called cadence) slow or speed up.** On a rolling course, you'll be shifting almost constantly to maintain that steady cadence. On a flat ride you will remain in just a few gears and on hill ride you will be using all gears like your rolling ride but not changing them as frequently.

How do you know what gear to select? Don't get confused by the many choices. The correct gear is a gear that allows you to pedal comfortably at the moment. **There's no right or wrong gear and there's no proper sequence to follow.**

Shifting the right lever makes it slightly easier or harder to pedal on a gradual scale. Think of this lever as a way to fine tune the effort required to pedal. Shifting the left lever makes it easier or harder to pedal as well but on a more dramatic scale. Think of this lever as a way to make large adjustments to the effort required to pedal for when you are descending or climbing.

Practice with a few sweeps of the levers, you'll get a clear understanding of what's going on back there and should feel more comfortable about shifting a lot while riding.

Riding in a Group

There are few keys to riding safely in a group. First the lead person is the primary communicator. He/she tells and points out to the person behind of dangers ahead, cars, dogs, pot holes, when to slow or stop, etc. That information is then propagated down the line. Second, keep a reasonable and safe distance between you and all bikes around you. Third, always look ahead at the riders in front of you and be ready to anticipate sudden changes in speed keeping your hands in and around the brake hoods.

