

DESCENDING

Your Bikes Mechanical State

Never ride your bike without checking its mechanical state. Your safety depends on it. Are wheels correctly locked in place? Brake shoes aligned on the rims? Do they need replacing? Are both tyres in good condition, no nicks, and inflated to the recommended pressure?

Bike Control

The secret of descending is being in control... it's the fastest way down the hill.

Approach higher speeds progressively. When you're training, only go at top speed if you can clearly see the road ahead, and even then leave a margin for error. Always think of something nasty, out of sight, around every bend.

Position your hands so that you can easily and quickly apply the brakes. Have your hands on the front of the drops, with at least a couple of fingers lightly taking up the slack on each brake lever. As you go faster, get used to keeping relaxed. Make sure that you can easily look behind without getting tense. Learn the effectiveness of the brakes... knowing what you & the bike can do is part of retaining complete control.



Anticipation

Take corners carefully, it won't be uncommon to find a vehicle taking the full width of the road. Corner smoothly - not in a series of wiggly turns. While it may be ideal not to brake in the turns, in reality you'll have to, so practice it. Get your head up, and look well ahead - right round the turn if possible.

Technique - Countersteering through Corners

The most common mistake in taking corners fast is to have your centre of gravity on the inside of the turn, like motorbike racers do. This 'instinctive' movement is completely wrong, as it reduces your cornering power. Using the countersteering method, you'll fly through corners you used to have to slow down for. It's safer, too, because it provides more control. So, here's how to turn using countersteering - you'll know when it clicks by that smile on your face...

- Start the turn by putting the outside pedal down. (right pedal for left turn.)
- Stand on the pedal and press your body weight on it, like you're trying to break it off. This lowers your center of gravity, making the bike more stable.
- Hold the handlebar in the drops.
- Move your butt to the rear of the saddle.
- Lower your torso along the top tube. Make yourself long to balance your weight along the bike's wheelbase.
- As you enter the turn, push your inside leg against the bike's top tube. (In the left turn, that's the left leg). Don't stick it out so it points into the turn like motorcyclers do. Pushing your knee into the top tube will automatically turn your hips toward the outside of the turn. This makes the bike dive rapidly into the corner but in total control.
- Press your outside leg's inner thigh against the saddle, pushing the bike down and to the inside against the pressure of your weighted outside foot.
- At the same time, pull gently on the handlebar with the outside hand. Phinney used to tell riders to push with the inside hand. The new method accomplishes the same thing while taking weight off the bar and improving control.



- The bike will carve smoothly around the corner. It'll lean as much as you need it to while your body remains relatively upright.

Need to adjust your line because of gravel or a wet spot? Just relax the outside hand so you aren't pulling the bar so hard. The bike will straighten up so you can avoid the obstacle. Once past, increase your pull with the outside hand to lean the bike over again and complete the turn. Your cornering will be faster and safer, as the bike takes the line you demand of it. You still need a margin for error on the outside of the turn, to recover a serious misjudgement, even in a race. The time you'll be pleased you mastered this technique is when you round a mountain bend fast, and unexpectedly confronted with the opposite turn! Rapidly reverse the turn by rotating the bike under you.

High Speed Descending

Your top speed downhill (assuming no pedalling) is determined by your weight, driving you down the slope, and the aerodynamic resistance which is holding you back. Frictional forces are insignificant.



So, heavy people naturally descend faster than light people.

In a race, we therefore concentrate on reducing aerodynamic drag. This means having pedals fore and aft, feet pointing into the wind, knees in, hands on the drops lowering the upper body, and elbows in. The head position is as low as possible, but never losing sight of the road ahead. One step further may be considered; placing one arm alongside your body with the palm at the back of the seat. But you must be sure that you can bring your hand back quickly to the brake lever, and be entirely comfortable riding the bike one handed! Only do this on straight sections where you can see well ahead.

Lance Armstrong on Cornering...

Most pros rely on their tires and press their bikes into the corner. You can really push a tire these days. Keep your body upright and push the bike down. When I won the world championship in Norway in 1993, I was cornering hard in the wettest race of my life. It was so wet it's stuck in the minds of a lot of racers. Everyone talks about it. You can corner faster if you lean your bike and keep your body perpendicular to the ground. Get your weight is on the outside pedal, be ready for braking, but not using the brakes. Brake before the corner, not during it. Don't concentrate on getting to the bottom with everyone else. Concentrate on getting down first. Yates always said he could pick up the most time in the corners. Brake before the corner, then accelerate out of it. I'll do an aerodynamic tuck if I'm solo, but if you're in a group you don't need to. Anticipate what's coming and let your instincts handle what's right in front of you. When you're bombing down a hill and you're in the middle of the corner, you should already be looking to the next one. Mentally, keep putting yourself farther and farther down the road because things start to come at you so fast.

Three steps to quick turns.....

- i) Go out on a grassy field, get your speed up, and get a sense for leaning your bike way over.
- ii) Find a vacant area like an industrial park where you can vary your speed. Do the same corner over and over, each time a little faster.
- iii) Experiment with different lines and lean angles as well as speeds



Descending Training Tips

DRILL! Crash Course in Countersteering: Instead of learning how to countersteer during normal riding, give yourself a crash course in an empty parking lot. (Don't take us literally on that one.) Set up paper cups or traffic cones to form a slalom course. Zigzag left and right past the cups. The closer you place them, the quicker your position shifts must be-and the faster the technique will become automatic.

TIP! Braking Away: You can't corner fast if you don't know how rapidly you can decelerate for a corner. And that means knowing the power of your brakes. To practice, pick a sign about a hundred yards away on a straight road with no traffic. Approach the sign moderately fast (about 20 mph) and experiment with how much distance you need to stop. Apply the front and rear brakes evenly at first. Notice, however, that the front brake delivers more stopping power because your weight shifts forward as you decelerate. You can stop faster if you squeeze the front brake harder, but there is a risk. To make sure you don't rotate right over the handlebar, always slide your butt back. The harder you grab the front brake, the lower and more rearward your body should be.

When braking downhill in the wet it can take several seconds for the levers to grab. Now just plan for it. Apply the brakes earlier than normal so they have a chance to squeegee off the rims before you really need to slow down. You don't have to coast when you do this. You can ride the brakes for 10 seconds while pedaling if that's what it takes to get good response. Pedaling actually makes your bike a little more stable, keeps your rhythm going and lets you go slightly faster.

Cutting off corners needs a very special care. It is all too easy to misjudge things and 'run out of road'. The best advice I can suggest is to not cut the corner until you can see the line out of it. So keep near to the outside until you can see the roadway out of the corner, then cut. That way you will avoid nasty surprises.

For racers in speed sports, the abiding principle is that the faster you exit a turn, the faster you go down the next bit of straight road. So you also need to learn the precise moment to begin pedalling out of a turn - being careful not to catch the inside pedal on the ground !