

Sport Bike Riding Skills

Vision Quest

The biggest trap inexperienced motorcyclists fall into is not practicing good visual skills. This is probably the single largest cause of accidents for novice riders, yet it is also the most basic skill that forms the foundation for every control action you perform while riding. If you aren't looking where you want to go, how do you expect to get there? We see way too many riders caught up in two major traps involving visual skills: "riding the front wheel" (not looking far enough ahead of the motorcycle), and target fixation. These two traps are often interrelated; when the rider doesn't look far enough ahead and becomes surprised by an obstacle, he panics, which leads to target fixation.

We can't emphasize enough how important it is to look far ahead of your bike while riding. This applies not only to riding in the canyons or on the racetrack, but to city/urban riding as well. Scanning far ahead allows you ample time to formulate a plan for navigating that particular piece of road, whether it be carving the perfect line through a curve, or preparing for and avoiding a hazardous traffic situation. This is especially crucial for novice riders, who usually require a lot more concentration and time to devise riding strategies that experienced riders can perform with little or no effort. If your riding plan is rushed, the chances are good that it will have mistakes. We have also found that looking far ahead helps novice riders overcome their initial fear of using lots of lean angle.

Looking far enough ahead of your motorcycle also helps your ability to scan your peripheral vision for visual clues, whether they are hazards or turn reference points. You don't have to stare at something in order to "see" it; honing this visual skill will allow you to "hit" your turn apexes while already focusing on the next one up ahead. We see a lot of novice riders concentrating so much on trying to hit their apexes "just right," that they end up staring at them nearly to the point where they are upon them; by then, it's too late. If you're still staring at the apex 20 feet before you reach it, by the time you start looking for your next apex, you'll be upon it, and your riding plan will be rushed. Learn to hit your points without actually looking at them.

A rushed riding plan can result in a common problem for novice (and expert) riders: target fixation. When riders go into panic mode, they often end up staring at the most threatening object or area up ahead. This is often either a wayward car entering your path, or the outside of a turn when you enter it a little too hot. The oft-used phrase "you go where you look" is never truer in this situation. We can practically guarantee that if you continue to stare at something you are trying to avoid, you will hit it. Although easier said than done, this is why you need to build your visual scanning techniques so that you will instinctively look beyond an approaching hazard. If a car turns into your path, immediately look for an escape route while getting on the brakes; if you exceed your comfort speed entering a corner, look at where you want to go. Staring at a hazard won't help you avoid it-look where you want to go, and you'll get there.

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Riding Skills: You Are Where You Look

1. We can't emphasize enough how important it is to not only look where you want to go, but to also scan far enough ahead of yourself; this is basically a recital of the racing mantra, "Don't ride the front wheel." Riding a sportbike well means being in control, and though it may not appear that way, it's vitally important for a racer to constantly be on top of his motorcycle's handling. Since racers are more often than not traveling at warp speed, they must anticipate what their racebike is going to do long before it happens—which means looking far ahead of their present location. This is why racers seem to be checking out spectators on the side of the track when entering hairpins. Instead, they're looking at where they'd like to be in a 10th of a second. .

2. Try practicing your vision skills at a fairly tight corner, either on your favorite canyon road or on the racetrack. As you approach the apex (or a fixed, readily visible point on the pavement), note how close you are to that mark before you begin to scan ahead for your next reference point. If you are staring at that point until you are nearly on top of it, you're target fixating—if the corner ahead tightened up or if you found an obstacle in your path, it would be difficult to correct. In fact, if you're looking at that point even 25 to 35 feet before you get there, you're still not looking far enough ahead.

You need to get your steering and vision skills honed to the point where you can hit a certain spot on the pavement repeatedly without having to actually look at it. This involves using your peripheral vision to see the intended path of your tires, while still looking ahead at the next reference point (or as far ahead into the corner as possible). Try this: Find a tight, second-gear corner, have a buddy stand on the side of the road, and have him observe how close you can come to a fixed point on the pavement repeatedly while keeping your head turned as you scan far ahead into the bend.

3. Heading into a corner with a little too much speed or having a turn unexpectedly tighten up on the exit is terrifying for a novice rider. Modern sportbikes are highly capable machines, and as long as the suspension is even halfway close to being dialed-in and the tires are in decent shape, you are likely to be astounded at the lean angles/midcorner corrections they can achieve.

The most important point to remember when faced with having to tighten your cornering line is to look ahead into the corner—where you want to go. If you come into a turn a little too fast, roll off the throttle gently and force yourself to keep your vision fixed on the exit; don't panic and stare at the outside of the corner or the hazard you're trying to avoid. When you see racers making close passes, you'll note they're not looking at one another as they go by—they're looking past the object they need to avoid in order to get to their intended destination.

4. Another disturbing habit we see with some sportbike riders is the tendency to "hug" the center dividing line when entering left-handers. The problem with this practice is that while your tires are technically on your side of the road, your body and some bike components are in the oncoming lane. Should there be a car or truck (or even another bike) drifting toward the line as you're headed in the opposite direction, you'll be in for a nasty surprise if you don't change your line. Plus, you drastically cut down on your available options if you find them drifting into your lane.

Try to keep your tires far enough on your side of the center dividing line to allow your body and

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bike parts room while leaned over. You should also remember that if you're close to using all of the available ground clearance while riding on the street, you're "riding on reserve"; get thee to a racetrack, where you can practice riding at that level in a far safer environment.

Riding Skills: Body Steering

- 1.** Over the years, there has been much ado about the importance of countersteering. Simply put, countersteering-or turning a bike's handlebar in the opposite direction of your desired turn-is the best way to control your motorcycle. Those riders who doubt the importance of countersteering owe it to themselves and their loved ones to sign up for an MSF Basic RiderCourse or Experienced Rider Course as soon as possible (800/446-9227; www.mic.org or www.msf-usa.org). Still, a small but vocal group of seasoned riders insist that-in the efforts to impress upon novice riders the importance of countersteering-an effective, advanced method of turning a motorcycle has been neglected. Body steering utilizes a rider's feet and legs to augment handlebar input for quick, controlled turns.
- 2.** Before experimenting with body steering, a rider needs to be proficient at countersteering. Also, bad habits-such as riding with locked elbows or improper body positioning can dull or even negate the effects of body steering. Begin by riding a section of road that you are familiar with at a moderate pace. With the balls of your feet, evenly place weight on the bike's pegs. Focus on your riding position, making sure to support your torso with your stomach muscles while keeping your elbows bent and your arms relaxed. Next, choose a corner to try this body steering technique. At the turn-in point, countersteer while pressing down on the inside peg and pulling your outside knee in and down toward the inside of the turn. Try varying the force of the foot/knee input while body steering into a variety of corners to learn the proper combination of countersteering and body steering.
- 3.** Although body steering is more effective at initiating a turn in some types of corners than in others, the technique is particularly well suited for midcorner line corrections or bending your bike into a decreasing radius turn as shown above. By using the lower extremities instead of your arms to alter your bike's line while leaned over, your hands are free to modulate the throttle. Also, by using your legs to steer the bike, your arms stay relaxed allowing the bars to move as your bike tracks over pavement irregularities. Some riders report that they not only press toward the inside of a turn with their outside knee, but also, while keeping their toes on the peg, hook their outside heel against the frame or bodywork to assist in pulling their bikes into a turn.
- 4.** Body steering isn't just useful for turning a bike into a corner. This technique can be reversed by applying weight on the outside peg to widen the line midcorner. At the exit of a turn, body steering can help stand a bike up when used in conjunction with countersteering, putting the meat of the tire to the ground, while your hands are busy rolling on the throttle or shifting. When used properly, body steering and countersteering will help you turn your bike smoothly and quickly in a variety of cornering situations.

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Riding Skills: Blind Turns

1 There's always a bit of trepidation when approaching a blind turn, but taking a slightly different line than usual will get you through with minimal fuss. The key is to enter the turn a bit slower and wider than normal for the radius it appears to be. This allows you the longest line of sight around the obstruction. A general rule of thumb is to keep your speed slow enough that you can stop safely in the distance you can see ahead.

2 It's important to remember to keep your speed down on the entrance, as you may have to tighten your line if it turns out to be a decreasing-radius corner. Once you can see the exit of the turn, begin cutting into the apex. Because your entrance speed is a bit slow, it's possible to get on the gas almost right away, which will help settle the bike. It's doubtful a turn will arc more than 180 degrees. So once you've passed a point where you're able to see far enough ahead to ensure the turn isn't going to tighten up unexpectedly, it would be safe to start to apex without seeing the exit.

3 When a vehicle comes darting out from behind an obstacle, it can be startling and you'll be compelled to follow it with your eyes-especially if it's another bike. Avoid watching it, as you're sure to run wide. Pay attention to the road, looking as far ahead as possible. Similarly, if you suddenly come across something in the road, decide on an avoidance path and don't stare at the debris. It's easy to target fixate on something that appears suddenly, and it will require practice to train your eyes to stay focused on where you want to go.

4 The restraint shown on the entrance of the turn will pay off when you can straighten up, get on the gas and accelerate out, as opposed to running wide and backing off the throttle if you enter fast and apex early. Seeing more of the turn on the entrance will give you extra confidence in steering the bike, and decrease the chance of something surprising you in midturn. A slower entrance and late apex allows better control, in case the turn tightens up or there's debris in the road, and keeps you safely in your own lane at the exit of the turn.

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Riding Skills: Countermeasures

1. Whether you realize it or not, countersteering is as necessary and vital to your riding as using the brakes. If you're not familiar with countersteering, it's a term used to describe the physical action of steering the bar or clip-ons momentarily in the opposite (yes, opposite) direction of the turn in order to initiate a corner.

2. Most new riders who have not taken a Motorcycle Safety Foundation course are under the impression that in order to arc through a corner on a motorcycle, the rider must lean and turn the front wheel in the direction of the corner.

In fact, the opposite is true. At speeds greater than 15-20 mph, the rider must initiate a turn by first turning the front wheel toward the outside of the corner (i.e., push on the left bar to go left, push on the right bar to go right). This is a momentary action that rolls the motorcycle off its axis, leaning it in the direction of the bar/clip-on that is pushed. As the bike reaches the desired lean angle, the tire falls into the arc of the turn.

3. Here's an exercise to practice countersteering. Find an empty stretch of straight road. While riding at steady throttle at a slow speed (35-45 mph), pick a spot on the road ahead and use it as an imaginary obstacle—a point where you'll want to swerve.

As you approach your target, choose the direction you want to maneuver the bike. For the first pass, begin your turn well back from the point you want to avoid and make sure you don't target fixate. Apply slight pressure on the desired clip-on to arc the bike around the "obstacle," then apply pressure on the opposite side to swing back onto your original line. The motion involved in pushing/pulling the clip-ons should be a controlled movement; jerky actions will upset the chassis. As you become more comfortable, advance your initial turn closer to the target. This will require a more forceful action at the clip-ons, but remember to keep your motions smooth. With practice, you can quickly and accurately place the bike using exact countersteering inputs.

4. Remember: At low speeds (less than 15 mph) countersteering doesn't have any effect on turning the motorcycle, but as speeds rise the force of the input required increases. It takes less effort to steer a motorcycle traveling at 60 mph than it does to steer at 100 mph.

Countersteering can be used in two ways: subconsciously or consciously. Those who use it subconsciously perform the action without knowing it, and therefore have less of an understanding of how their motorcycle works. Those who consciously use countersteering—both racers and street riders alike—are able to place their motorcycles precisely where they want.

Whether you are enjoying your favorite road or find yourself in the middle of an emergency situation, the ability to knowingly countersteer your bike and place it where desired gives you greater control in any situation that arises.

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Riding Skills: Toeing the Line

Staying on your side of the yellow/white line through corners usually means you're safe...

1. The lane-divider line on a road-whether a double yellow, broken single yellow or white line-is usually (and actually, should be) the demarcation zone for street riders. It marks the limit of usable pavement for that particular direction of traffic, and is basically there to facilitate the flow of traffic and prevent head-on collisions. Staying on your side of the yellow/white line through corners usually means you're safe from oncoming traffic. But we see far too many riders dangerously stepping over that boundary, even though they're technically on their side of the road.

2 Since a motorcycle uses lean angle to turn, its tire tracks are not in line with the rest of the vehicle, unlike a car. This means that though the tires may be at one point, the rest of the bike-and probably even more critical, the rider-will actually be far inside that point. While this poses no problem with right-hand turns, turns to the left create a hazard that many riders unwittingly step into, especially in blind curves. They may be "hitting their apex" just right, but what they don't realize is that much of their bike-and most of their body-is actually over the lane divider, putting themselves at great risk for a head-on collision.

3 Many two-lane roads are narrow enough that a car or truck can fill up nearly a whole lane. Should they encounter an oncoming hazard, there's not much room to maneuver in order to evade that danger. And that's not even taking into account those drivers who slightly wander over the line into the wrong lane due to distractions or just plain poor driving skills. Or what about a rider approaching in the opposite lane staying wide before turning in so that he won't have to use much lean angle?

4 Think about it: All it takes is one vehicle traveling at 30 mph, and the other moving at the same speed, to equal a closing speed of 60 mph. Around a tight, blind left-hander, that doesn't mean much time or room to recognize the oncoming hazard and take evasive action. Why expose yourself (and perhaps another rider) to this risk? Be cognizant of your body's location when you carve that next left-hand turn, and keep your wheel tracks far enough in your lane to prevent having to lean your body (and bike) over the lane-dividing line. Learn to regulate your speed in those corners also, so that you won't be tempted to use that pavement in order to make the corner.