

# RIDING WITHIN YOUR ABILITIES

This manual can help to educate novice and experienced riders alike about controlling motorcycle direction, speed, and balance. Professional instruction, practice, and safe responsible riding will further enhance rider safety. Recognizing the control needed to avoid injury is critical for riders of all abilities. Control begins with knowing your abilities and riding within them and the rules of the road.

## BODY POSITION & POSTURE

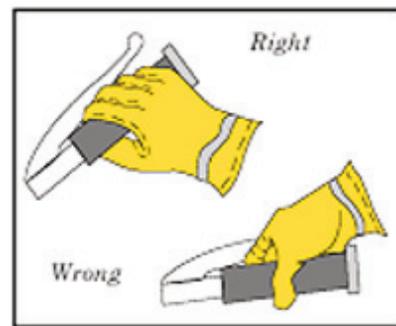
To properly control the motorcycle, your body must be in the proper position. Your body should be relaxed but fairly erect. This allows you to use your arms to steer the motorcycle rather than to hold yourself up.

## SEAT

Sit close enough to the handlebars to reach them with your arms slightly bent. Bending your arms permits you to turn the handlebars without having to stretch.

## HANDS

Hold the handlegrips firmly to help keep your grip over rough surfaces. Start with your wrists flat. This will help keep you from accidentally using too much throttle, particularly if you need to reach for the brake suddenly. Adjust the handlebars so your hands are even with or below your elbows.



*Holding Handlegrips*

## KNEES

Hold your knees firmly against the gas tank. This will help your balance as the motorcycle turns.

## FEET

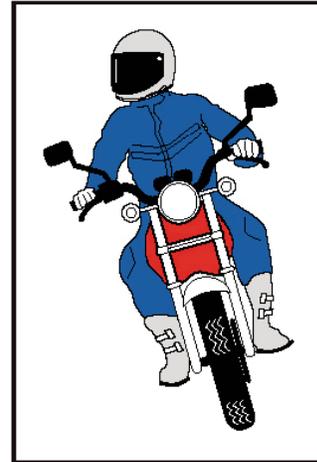
Keep your feet firmly on the footpegs to maintain balance. Do not drag your feet along the ground. If your foot catches on something, you could be injured and it could affect your control of the motorcycle. Keep your feet near the controls so you can use them quickly if needed. Do not point your toes downward, as they may get caught between the road and the footpeg.

## TURNING

Approach turns and curves with caution. Acquiring the skills necessary takes practice. New riders often have more difficulty negotiating turns and curves than more experienced riders. Limiting motorcycle speed will aid riders in successfully negotiating the turns and helps to prevent crossing into oncoming traffic, leaving the roadway, excessive braking, and skidding out of control.

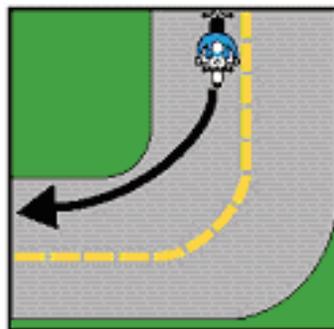
It is recommended that riders use these four steps for better control:

- **Slow** - Reduce speed before the turn by closing the throttle and, if necessary, applying both brakes.
- **Look** - Look through the turn to where you want to go. Turn just your head, not your shoulders, and keep your eyes level with the horizon.
- **Lean** - To turn, the motorcycle must lean. To lean the motorcycle, press on the handgrip in the direction of the turn. Press left—lean left—go left. Press right—lean right—go right. Higher speeds and tighter turns require the motorcycle to lean more.
- **Roll** - Roll on the throttle through the turn. Maintain steady speed or accelerate gradually.

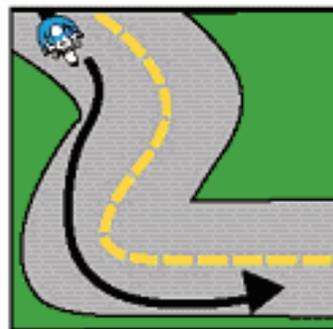


*Normal turning*

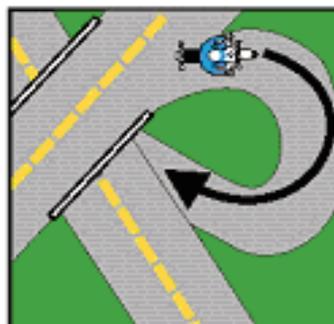
Avoid deceleration through the turn. In normal turns, the rider and the motorcycle should lean together at the same angle. In slow tight turns, lean only the motorcycle and keep your body upright.



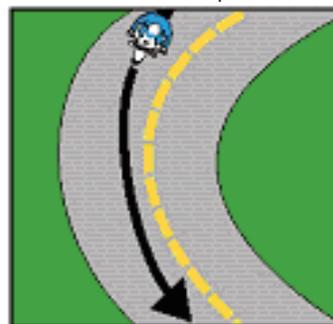
*Constant curves*



*Multiple Curves*



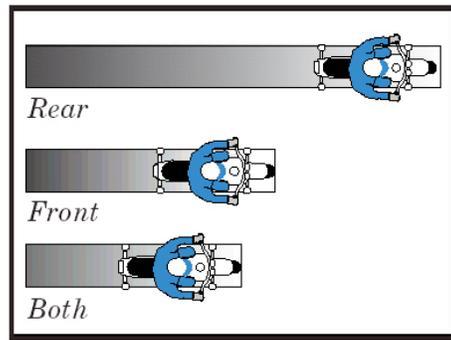
*Decreasing curves*



*Widening curves*

## BRAKING

Your motorcycle has two brakes, one for each of the front and rear wheel. You need to use both brakes to stop effectively. The front brake is more powerful and can provide at least three-quarters of your total stopping power. The front brake is dangerous if not used properly. Here are some important tips to remember while braking:



- Use both brakes every time you slow down or stop. Using both brakes for even “normal” stops will allow you to develop the necessary skills for using both brakes properly in an emergency. Squeeze the front brake and press down on the rear. Grabbing at the front brake or jamming down on the rear can cause the brakes to lock, which results in control problems.
- Apply both brakes at the same time. Many individuals believe that the rear brake should be applied first. That is not true. The sooner you apply the front brake, the sooner it will start slowing you down.
- The front brake can be used in a turn, provided the proper technique is applied. When leaning the motorcycle, some of the traction is used for cornering, so less traction is available for stopping. A skid can occur if you apply too much brake.
- Some motorcycles have integrated braking systems that link the front and rear brakes together by applying the rear brake pedal. Consult the owner’s manual on the operation and effective use of these systems.

## SHIFTING GEARS

To properly shift gears, a rider must possess a certain level of skill and coordination. Shifting gears is more than simply getting the motorcycle to accelerate smoothly. Proper gear selection and execution when upshifting, downshifting, turning, or starting from a stopped position is important for safe motorcycle operation and minimizes the risk of an accident.

## DOWNSHIFTING

It is important that a rider shift down through all gears when slowing down or stopping. Remain in first gear while stopped so you can move quickly if the need arises. Make certain you are traveling slowly enough when shifting into a lower gear. Traveling too fast may cause the motorcycle to lurch and the rear wheel to skid. Use added caution when riding downhill or shifting into first gear, for you may need to use the brakes in order to shift safely.

## SHIFTING IN A TURN

It is recommended that a rider change gears prior to entering a turn, although in certain circumstances, shifting in a turn may be necessary. Do not attempt to upshift or downshift in a turn unless you can shift smoothly. A sudden change in power to the rear wheel can cause it to lock or spin. The result can be a skid.

## **STARTING ON A HILL**

It is more difficult to start the motorcycle moving on an upgrade than on flat ground. There is always the danger of rolling backwards into a vehicle behind you. Here are some important tips to remember when starting on a hill:

- Use the front brake to hold the motorcycle while you start the engine and shift into first gear.
- Change to the foot brake to hold the motorcycle while you operate the throttle with your right hand.
- Open the throttle a little bit for more power.
- Gradually ease out the clutch.
- Release the foot brake when the engine begins to slow down. This means the engine is taking hold.
- Continue to release the clutch gradually. If you release it too quickly, the front wheel may come off the ground, the engine may stop, or both.

## **AVOIDING COLLISIONS**

A safe and responsible rider significantly reduces the risk of being injured in an accident by riding defensively. As a rider, you cannot be certain that motor vehicle drivers will be aware of your presence. Riding defensively incorporates rider preparation, communication, and caution. To lessen your chances of being in an accident:

- Be visible - wear proper clothing, always use your headlight, and ride in the best lane position.
- Communicate your intentions - use the proper signals, brake light, and lane position.
- Maintain an adequate space cushion - following, being followed, lane sharing, passing, and being passed.
- Scan 10 to 15 seconds ahead of your path of travel.
- Identify potential hazards or conflicts and consider your escape options before they develop.
- Be prepared to act - remain alert and know how to carry out proper accident avoidance skills.

## **BE VISIBLE**

In crashes involving motorcycles, motor vehicle drivers often cite the lack of rider visibility as the leading cause of the accident. Both from ahead and from behind, a motorcycle's outline is much smaller than that of other motor vehicles. Therefore, even if a motor vehicle driver recognizes your presence, you are not necessarily safe. Often it is easy for motor vehicle drivers to mistake a rider's distance and speed because smaller vehicles appear farther away and seem to be traveling slower than they actually are. A rider can take several measures to help motor vehicle drivers recognize their presence on the road.