

9

Challenging Riding Conditions

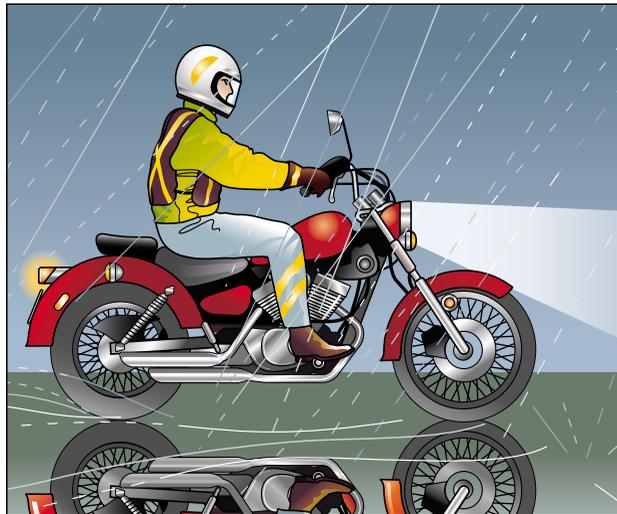
Topics Covered

- Reduced Vision and Visibility
 - Fog and rain
 - Glare and shadows
 - Night riding
- Reduced Traction
 - Unpaved road surfaces
 - Irregular road surfaces
 - Railway tracks
 - Slippery surfaces
 - Road design
- Turbulence and Crosswinds
- Carrying Cargo

Chapter 8, Personal Strategies, described useful strategies for handling personal situations that can negatively influence your riding. This chapter describes some weather, road and riding conditions that can challenge you as you ride. You will find practical tips on how to control these conditions to prevent emergencies from developing.

Reduced Vision and Visibility

Some environmental conditions prevent you from seeing and being seen. Mist, fog and heavy rain limit visibility. Glare from the sun or a poorly aimed headlight can momentarily blind a motorcycle rider or driver. Restricted light conditions at dawn, dusk or nighttime make it difficult to see and be seen. You should be cautious when riding in any of these conditions – they are always more dangerous for motorcyclists than for drivers. In some weather conditions, such as heavy fog or snow, use your road sense and choose not to ride.



9 - 1

What makes this rider more visible?

Fog and rain

Thinking Like a Rider

It has been a sunny day, and you are riding along a highway near the ocean. Suddenly, you ride into a fog bank. You strain to see two seconds ahead, but you can't.

What should you do?

Applying Your RoadSense



RoadSense Tip

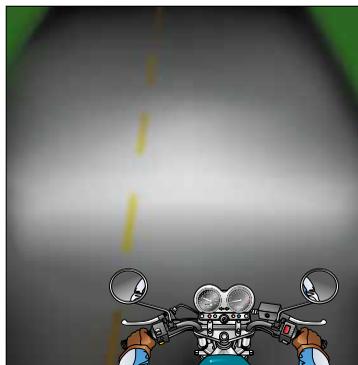
If you have any doubts about your safety when visibility is limited, pull over and stop riding.

Weather conditions such as fog and heavy rain interfere with your ability to see. If you can't see clearly ahead or behind, your information about the road scene is dangerously reduced. When you lose sight of the horizon, you may have trouble keeping your bike stable and upright because you lose your sense of where you are in relation to the road.

Strategies: Riding in Rain, Mist or Fog

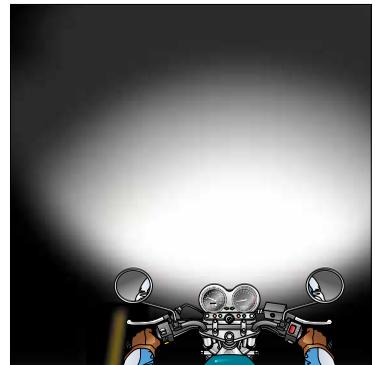
- Make yourself visible. Wear brightly coloured and reflective gear.
- Keep your faceshield, goggles and windshield clean.
- Use fog lights.
- Search and scan more frequently and more carefully.
- Slow down so that you can stop within the distance you can see ahead.
- Allow more following distance.
- Use the tail lights of the vehicle in front of you as a guide.
- Choose a lane position that will keep you away from oncoming traffic and parked cars.
- Pull well off the road if you have to park your bike. It may not always be safe to stay with a parked bike if there isn't much room on the shoulder.
- Use the low beam headlight when visibility is limited so that oncoming traffic can see you and you can see more clearly.

Low beam



Use the low beam headlight in fog or heavy rain, especially at night, for better vision.

High beam



Avoid using the high beam headlight because it reflects on the rain or fog and causes glare.

9 - 2

Glare and shadows

Thinking Like a Rider

You are riding west on a twisty mountain highway. The sun is starting to set. You round a curve and are suddenly blinded by the sun.

What can you do?

Changing light conditions can reduce your ability to see. Sun glare can momentarily blind you. Riding through tunnels on a bright sunny day can be especially dangerous for riders because of the extreme contrast between light and dark. Drivers can quickly take off their sunglasses when entering a tunnel, but riders can't. Glare doesn't only happen in the daytime; it can also happen at night when the lights of oncoming vehicles can blind you.



RoadSense Tip

Look ahead and anticipate areas where glare and shadows are likely to interfere with your vision.

Strategies: Overcoming Contrasting Light Conditions

- Keep your faceshield and windshield clean and in good condition.
- Use sunglasses during the daytime.
- If blinded by glare, look down and to the sides.
- If possible, scan well ahead when you enter a tunnel.
- Slow down when blinded by glare and before entering a tunnel.

Night riding

Thinking Like a Rider

You are riding on a multi-lane highway at night. It is dark and there is heavy traffic. You wonder how visible you are. Should you change your lane position? You wish that you had remembered to wear your jacket with the reflective stripes.

What should you do?

Riding at night, at early dawn or at dusk is a challenge for all riders. You have limited vision and others may not see you. You have difficulty judging distances. Other road users may not be able to pick out your single-beam headlight from the other lights in the scene.

Strategies: Riding at Night

- Keep your windscreen and faceshield clean and in good condition. Scratched faceshields and goggles can distort or impede your vision.
- Don't use a tinted faceshield or goggles.
- Wear reflective gear.
- Be sure the headlight on your bike is clean and correctly adjusted.
- Use the headlight appropriately. (See **Using your headlight** below.)
- To avoid glare from oncoming lights, glance to the right edge of the road.
- Watch other vehicles. They can help you determine the boundaries of the road.
- Keep your eyes moving. Scan carefully for pedestrians, cyclists and animals.
- Slow down.
- Increase your following distance.
- Increase your space margins.
- Choose a lane position that will allow you to see and be seen.



RoadSense Tip

If either the high or low beam headlight burns out, use the remaining beam to get you safely off the road.

Using your headlight

By law, you must have the headlight on from 30 minutes after sunset until 30 minutes before sunrise or if your visibility is reduced to less than 150 metres. However, if your motorcycle is a newer model, the headlight will always be on when the engine is running.

You must dim your headlight high beam when you are within 150 metres of another vehicle, whether you are meeting it or following it. If you have trouble judging distances, as most people do, dim your headlight early.

Overriding the headlight

Be careful not to override your headlight at night, in fog or in rain. Overriding means you are not able to stop within the distance that you can see with the headlight. It is especially dangerous to override the light on a curve. Ride slower when using the low beam light and make sure you can stop within its range.

Reduced Traction

As a rider, you will come across a range of road conditions. Many of these are dangerous because they can cause your bike to lose traction. You can prevent losing traction by scanning well ahead. This will help you find good escape routes. If you can't avoid the problem, don't panic; slow down and avoid sudden movements. This will help you stay in control and allow you to use your See-Think-Do skills.

Unpaved road surfaces

Thinking Like a Rider

You have just come around a curve when you see that the pavement ends and gravel stretches in front of you. When you ride onto the gravel, you feel the front wheel wandering and the back wheel feels unstable, too.

What should you do?

What do you do when you are faced with dirt or sandy surfaces? How can you safely ride on a gravel road?



If you have to ride onto a rough surface, always try to slow down first.

9 - 3

Strategies: Handling Rough Road Surfaces

- Watch for the warning signs that indicate rough road surfaces ahead.
- Keep your head and eyes up as you ride.
- Slow down gradually and smoothly by rolling off the throttle.
- Release the brakes just before riding onto gravel to prevent a lock-up.
- Maintain a steady speed.
- Brake gently on rough road surfaces.
- Keep the bike as upright as possible. Keep a firm grip on the handlebars.
- Avoid sudden moves.
- Leave extra stopping room.

Strategies: Riding Off-Road

If you plan to ride off-road, don't leave your safety habits at home. Wear a helmet and appropriate gear. Use your See-Think-Do skills and make sure your bike is in good mechanical condition. Also:

- Plan ahead. If you will be coming back at night and riding on public roads, you must have a headlight.
- Ride with a buddy.
- Make sure your bike meets legal requirements if you have to travel on public roads to get to the off-road site.

Irregular road surfaces

Thinking Like a Rider

You can see construction just ahead. A new asphalt surface is being laid on the lane to your right making it higher than the lane you're in. There is a car right behind you and you want to get out of the way.

What should you do?



RoadSense Tip

Use your See-Think-Do skills to anticipate irregular surfaces and slow down before reaching them.

In this scene, you may choose not to change lanes because of the different height levels. Be on constant watch for cracks, bumps, ledges, broken pavement, potholes and uneven pavement surfaces as you ride. You can sometimes avoid these surfaces by riding around them. If this is not possible, you will need to use strategies that will prevent you from losing traction.

Strategies: Handling Irregular Surfaces

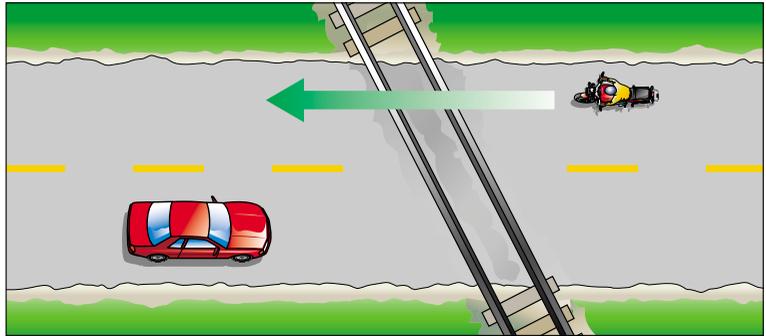
- Scan well ahead so that you have time to take action.
- Don't change direction abruptly.
- Keep your speed slow and steady.
- If pavement levels are uneven, as in a construction zone, approach anything higher than a couple of centimetres at an angle as close to 90 degrees as possible. This will prevent your wheels from catching on the lip.
- Don't worry if your bike weaves when you cross grooves in the road or bridge gratings – slow down and let the bike take its course.
- Use caution on wet wooden plank surfaces. They can be very slippery.
- When riding from one road surface level to a different level, rise off the seat, keeping your weight on the footpegs if possible.

Applying Your RoadSense

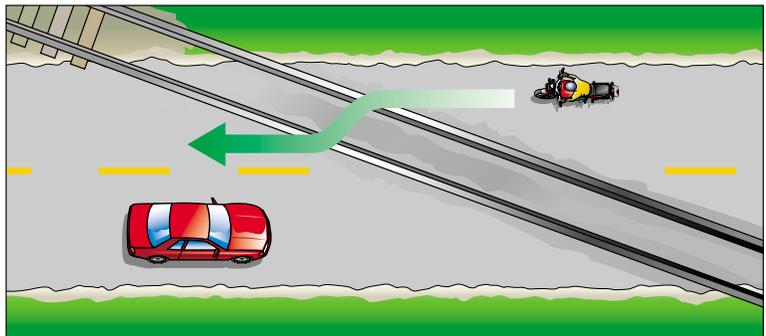
Railway tracks

Railway tracks can jar your wheels or trap them and cause you to lose traction.

The best strategy for crossing railway tracks is to ride straight across them and stay within your lane.



If the track is angled too much and you think it could trap your wheels, slow down and angle your bike so that you cross as close as possible to a 90-degree angle (45 to 90 degrees is safe).



9 - 4



RoadSense Tip

Plan ahead. Always position yourself so that you don't angle into approaching traffic when crossing train tracks.

Strategies: Crossing Tracks

- Keep yourself and the bike upright.
- If necessary, brake or change gears before you begin to cross.
- Anticipate how much traction is available on the track crossing. Wood and metal surfaces can be slippery.
- If the track runs parallel or nearly parallel to your path of travel, keep far enough away to prevent getting caught. Cross at a 45-degree angle and make a sharp, quick turn.
- If you must angle your bike to cross safely, move into position well ahead. Make sure you don't angle yourself into approaching traffic.

Slippery surfaces

Thinking Like a Rider

You are riding in an industrial area of town. Many trucks and heavy equipment use the road, which is oily and dusty. It looks like it could rain at any minute. You start to worry about what the road will be like once the oil, dust and rain mix.

What should you do?

Slippery roads can cause your motorcycle to lose traction and go down. Be cautious around mud, wet leaves, road markings and deposits of fluid.

Rain makes the road surface slippery, too. This is especially true during the first half-hour or so of a rainfall that comes after a long dry spell. The rain mixes with the oil and dust on the road to create a slippery, oily film. This film washes away with continued rain.



Warning

- **Black ice** is caused by moisture freezing on the road surface. Normally you can't see it. However, if the asphalt looks shiny and black instead of gray-white, be suspicious.
- **Shaded areas** may stay icy even after the sun has melted the ice on other parts of the road.
- **Bridges and overpasses** tend to form ice on their surfaces before other road surfaces do.
- **Intersections** ice up quickly because of car exhaust and snow packing.
- **Wooden surfaces** wear unevenly and become slippery and dangerous with any frost, ice or wetness.

Strategies: Handling Slippery Surfaces

- Scan well ahead to spot slippery surfaces while you still have time to take action. Painted road markings, tar patches and manhole covers can be dangerous.
- Watch where you put your feet when you stop. You don't want to lose grip by having your feet slip on oil, fuel or a painted road marking.
- Reduce your speed and don't make any sudden changes in speed.
- Leave more following distance than usual.
- If you must brake, allow twice the normal stopping distance. Brake early and apply gentle pressure to both brakes.
- Choose the least slippery lane position and avoid the grease strip in the centre of the lane.
- Steer, brake and shift smoothly. Avoid sudden moves that could send the bike into a skid.
- Brake only when the bike is in an upright position.



RoadSense Tip

To avoid hydroplaning, make sure your tires have good treads and are correctly inflated.



Warning

Avoid going through standing water. You don't know what the water may be hiding.

Snow and ice

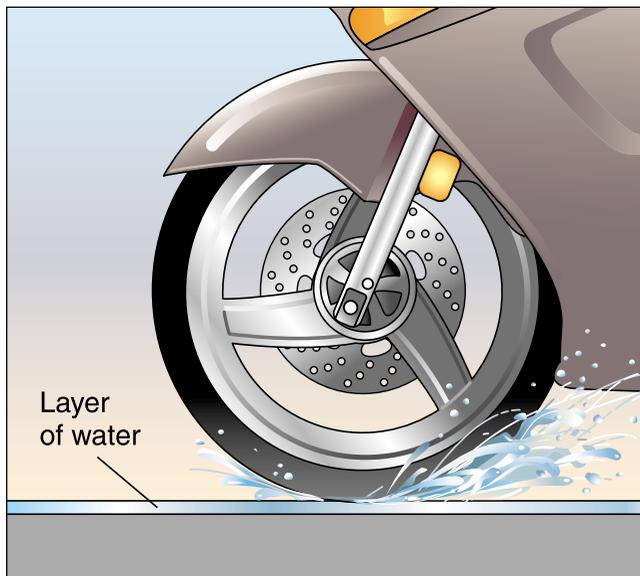
Ice and snow are the most dangerous conditions for riding and you should avoid them. If you are caught unexpectedly in ice or snow and have no alternative but to ride, use extreme caution. Keep the motorcycle upright and go as slowly as possible. You may also need to skim your feet along the ground.

Hydroplaning

Hydroplaning happens when tires lose contact with the road surface and float on a film of water. The tires slide on the water, and the rider instantly loses control of the steering and the brakes. You can tell if your vehicle is hydroplaning because the steering will suddenly become very light.

Strategies: Handling Hydroplaning

- Reduce your speed, especially during heavy rain.
- If you start to hydroplane, roll off the throttle and avoid braking or turning.



Vehicles with low tire pressure or worn tread are more likely to hydroplane.

Road design Crowns

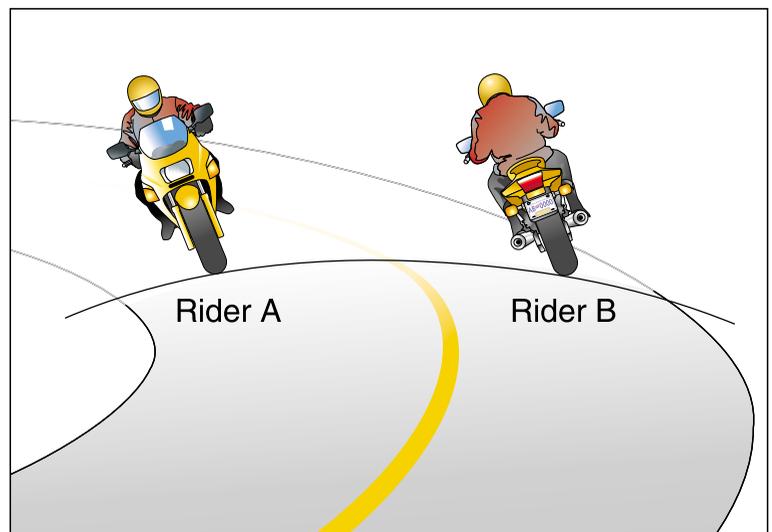
Thinking Like a Rider

You are on a twisty mountain highway. As you go around a sharp curve, you notice that your left footpeg is dangerously close to the pavement.

What is happening?

Paved roads are not usually flat. Some are crowned – they have a slightly higher centre so that the water will run off to the sides. On straight stretches, crowning may cause your bike to drift off your intended path. If you look well ahead and make slight steering adjustments that may be necessary, you can prevent drifting.

If the road is crowned and curved, you need to be careful because you may be leaning into the crown. This gives you less margin for error. Your footpeg or side stand could drag or you could lose enough traction to fall.



Look at the angles in the illustration. Rider A has a larger angle between the road and the bike than Rider B has. Rider B needs to ride through the curve more slowly than Rider A.

9 – 6

Banks

Curves are usually banked – shaped so that the inside edge of the curve is lower than the outside edge. Banking will help you make turns more precisely. However, not all curves are banked, and similar curves may not be banked to the same degree. The solution is the same as for crowns – slow down before the curve.

Hills

You can have the same problem when making a turn across the slope of a hill as on a crowned curve – the angle between your motorcycle and the road is reduced. When turning from a slope, slow down so that you can reduce the lean angle of the motorcycle and still keep in your intended path.

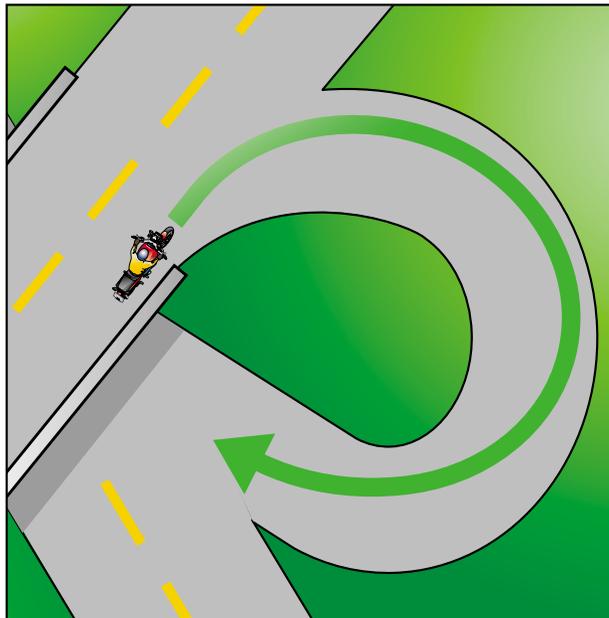
Curves

Thinking Like a Rider

You are riding on an unfamiliar road. You see a warning sign for a curve ahead and slow down. As you countersteer through the curve, you realize that you have misjudged the arc of the curve and you're heading off the road.

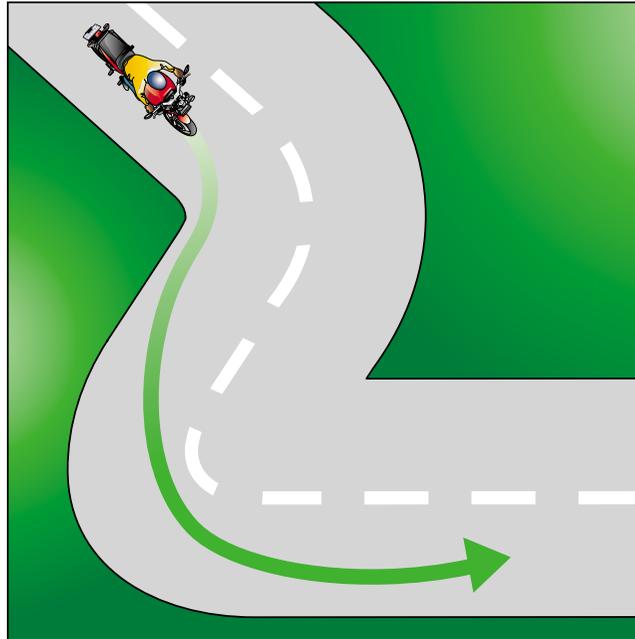
What should you do?

Not all curves run in a normal arc. If the shape of a curve changes, you have to be prepared to take action to compensate. Always pay attention to speed warning signs. They will give you an idea of the sharpness of the arc – the slower the speed on the sign, the sharper the arc of the curve is likely to be. If you misjudge the arc of a curve, look where you want to go and steer at a steady speed in that direction.



Decreasing-radius curve: This curve gets sharper as the turn progresses. Slow down before the turn, avoid braking once in the turn and countersteer or lean more.

Multiple curves: Be cautious about taking several curves. Slow down and countersteer through the curves first in one direction and then in the other.



9 - 8

Turbulence and Crosswinds



RoadSense Tip

Anticipate where crosswinds and turbulence could occur so that you can protect yourself against them.

If crosswinds are severe, stop riding.

Thinking Like a Rider

You notice the warning signs for wind gusts just before you round the curve of a mountain road.

What should you do?

Motorcycles are small and relatively light. The force of the wind can be strong enough to push a motorcycle off its path of travel. Crosswinds can cause sudden, unexpected gusts of wind. Look for them in such places as the entrances and exits of tunnels and bridges, between gaps in tall buildings or on exposed roadways. Try to avoid riding in windy weather, but if you must, then be prepared to anticipate turbulence and crosswinds and to take appropriate action.

Watch out for turbulence from larger oncoming or passing vehicles. It can push you off your path. The faster large vehicles are moving, the more turbulence they make and the farther off your path they can push you. Also watch out for other vehicles that the turbulence may force into your path – small cars, bicycles, tall vehicles, campers and cars towing trailers.

Applying Your RoadSense

Crosswinds can cause problems for you twice: once when they hit and once when they stop. On this road, the trees block the crosswinds. The rider will have to be ready for the changes in wind pressure.



9 - 9

Strategies: Dealing with Turbulence and Crosswinds

- Lean forward to reduce the size of your profile and your wind resistance.
- Keep a firm grip on the handlebars.
- Steer into the direction of the wind. For example, if the wind is coming from your left, then lean the bike to the left.
- Slow down.
- Choose a position in the centre of your lane so that you can move in either direction.
- Allow extra space on the side when a large truck or trailer is passing you.

Carrying Cargo

If you plan to carry cargo, make sure your bike is equipped with saddlebags, a luggage rack, a tank bag or mounted boxes. Be cautious. When loaded with cargo, your motorcycle can become unstable.

The triangle between the two axles and the rider's head is called the load triangle. A good rule of thumb is to keep cargo low and within the load triangle as much as possible. Check the balance of your cargo.



9 - 10

Strategies: Making Cargo Stable

- For maximum stability, carry cargo low and close to the centre of the bike, and distribute it evenly.
- Follow the weight restrictions for your motorcycle and make necessary adjustments to the suspension. Make sure that nothing is blocking the forks and shocks.
- Secure cargo tightly.
- Check that the tire pressure is correct.
- Check that the headlight is correctly aimed.
- Keep cargo away from hot areas of the bike.