

SHARING THE ROAD WITH MOTORCYCLES

When you think of a motorcyclist, what is the first impression that comes to your mind?

The person under the helmet could be your friend, neighbor or relative.

Over half of all fatal motorcycle crashes involve another vehicle. Most of the time, the car or truck driver, not the motorcyclist, is at fault.

Turning Left

Most vehicle-motorcycle collisions happen when a car turns left in front of an oncoming motorcycle.

- Because of size, it is hard to judge the speed. Predict that it is closer than you think.

Hard to see

Because of its narrow profile, a motorcycle can be easily hidden in a car's blind spots or masked by objects or backgrounds outside a car (bushes, fences, bridges, etc).

Wait until their intentions are clear!

Motorcycles don't have self-cancelling turn signals.

- Sometimes motorcyclists forget to turn them off after a turn or lane change. Make sure their signal is for real!

Stopping Distance

Stay back! Allow more following distance. Cars and motorcycles can stop in the same amount of time, but slippery conditions make it more difficult!

Motorcycle lane position

They often adjust their lane position to be seen more easily and to minimize the effects of road debris.

Riding in Groups

- The best way to keep the group close while maintaining an adequate space cushion between riders.
- In a staggered formation the group leader usually rides in the left position of the lane.

INTERSECTIONS

4 – Second Danger Zone Situations

Approaching every intersection and any line-of-sight or path of travel problem/hazard.

What is an intersection? Where two or more roads come together.

- **Controlled Intersections:** Has signs or signals that assign yielding responsibilities.
- **Uncontrolled Intersections:** No signs or signals. Right of way rules apply.

<p>FIND Intersections in the Target Area Range</p> <p>SOLVE & CONTROL in the 15-Second Range</p> <ul style="list-style-type: none">• Path-of-travel and/or line-of-sight problems.• Get the best speed, position and communicate. <p>CONTROL the 4-Second Danger Zone</p> <ul style="list-style-type: none">• Reevaluate with 45° or 90° searches to control problems.• Be prepared to adjust speed, position and communication before you occupy that space.
--



What are some clues that will help you to see that you are approaching an intersection?

Signs & signals, road markings, cross traffic.

Intersection Path-of-Travel Problems:

Every path-of-travel restriction temporarily or permanently blocks your ability to occupy space.

- Traffic controls: Signs, lights & markings, Intersection shape, pedestrians, vehicles: stopped, parked & moving

Intersection Line-of-Sight Problems:

Are danger zones. Each blocks your ability to gather information about the condition of your intended path-of-travel.

- Vehicles, Buildings, Fences, Trees, bushes, Elevated terrain, Signs, billboards

Railroad Crossings

Passive Signs: Signs that alert motorists that they are approaching a highway-rail grade crossing.

Active Signs: Electronic devices that warn the motorist of the approach, or presence, of rail traffic at grade crossings.

Use organized searching to FIND, SOLVE & CONTROL EVERY intersection line-of-sight and path-of-travel problem before entering.

Always search the left, front and right zones for open, closed, and unstable zone conditions:

- ✓ Search at 45° where no stop is required
- ✓ Search deep at 90° when stopped
- ✓ Search all corners for pedestrians
- ✓ Be sure your path is OPEN before entering

Before your foot goes on the brake, check rear zone conditions.

PARALLEL PARKING

The "Parallel Set Up"

1. **Communicate:** Signal
2. **Speed adjustment:** Approach the space slowly so your signal is not misinterpreted for a right turn.
3. **Position:** 3-4 feet away from the vehicle.
4. **Reverse:** Reverse lights let others know what your plan is.
5. **Check rear position:** You should see the end of the vehicle. Back up if you can't.

Find a 45° Target

Look for a landmark next to the left corner post of the windshield.

Check for traffic

Look for vehicles passing you - check left front swing.

Vision directed BACK!!

Look over your right shoulder looking out the rear windows of the vehicle.

- Decrease brake pressure move at an inching pace.
- Turn wheel rapidly and fully right.

Line up with your 45°

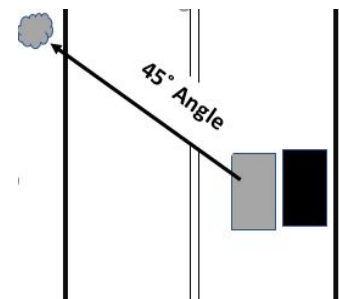
- The front of your car should be pointed at the target.

Straighten the wheel

Backing straight targeting the rear corner of the space.

- Look back with quick glances to the front and the sides.

See the corner



- Continue backing straight until you see the rear corner of the front vehicle forward of your right corner post of the windshield.
- This is the point where you will start your counter turn to the left.

Counter-steer Creep & Turn

Creep and turn the wheel left. Stop before touching the rear vehicle.

Center the vehicle

Pull forward and center your car in the space.

- Do not pull forward too close to the front vehicle.
- Could create problems when trying to exit if another vehicle parks and leaves you little room.

Try to leave enough space to the front so you can see the entire bumper of the vehicle in front.

Leaving the space

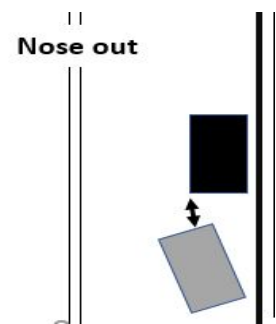
Shift to reverse, look out the rear window and back up. Give yourself space. If you can't see the bumper, you might bump it!

Get your nose out: Signal and creep forward and start turning wheel rapidly and fully left. Get the nose of your vehicle out and stop.

Advantages:

- Know that you can clear the bumper of the car parked to the front.
- If cars are parked to the rear, you can give yourself a view of approaching traffic in your mirror and blind spot.
- Approaching cars can see your signal and identify your intentions to move into traffic.

If approaching vehicles cannot see your signal, a hand signal is required.



Re-enter traffic: Once you have checked your mirrors and blind spot, pull out into the roadway.

MAINTAINING A SAFE FOLLOWING DISTANCE

Following too close

A habit of giving too little space desensitizes you to the value of adequate space until the unexpected happens.

Adjust Front Closure Rate

- Be sensitive to any closure of space.
- When the front car in front slows, you slow.

A 4-second following distance is the minimum safe following distance in normal driving conditions.

4 or More

- **Towns and cities:** Keep a minimum 4 seconds of space between you and the vehicle in front.
- **Highway speeds:** Keep a minimum 6 seconds of space between you and the vehicle in front.
- **Adverse conditions:** Increase your following distance even more in reduced visibility and traction situations.

Get a better view

- ✓ Following too close gives you very little information on what is ahead.
- ✓ You can solve LOS – POT problems with better more information and more space.
- ✓ More time for safe response options.

When you are following others

- ✓ The posted speed limit is the fastest you should travel.
- ✓ Speed signs tell you what the safest speed for traffic and road conditions.
- ✓ Create space and only pass when safe.

When being followed too closely

- ✓ If safe, try to pull over and allow them to pass.
- ✓ If you don't, they may try to pass you in an unsafe location.

Control your front zone by getting control of your rear zone.

- ✓ Increase your following distance!
- ✓ Communicate early
- ✓ Avoid sudden braking
- ✓ Don't engage in ROAD RAGE!

Total Stopping Distance

In normal conditions, it varies how long it will take to stop your car.

- Higher speeds, weight of the vehicle and different roadway conditions may require more space.
- From the time we SEE something to the time we come to a complete stop is called the total stopping distance.

Factors that affect your Stopping Distance

- | | | | | |
|---------|---|-------------------|---|-----------------|
| ✓ Speed | ✓ | Driver Ability | ✓ | Road Conditions |
| ✓ Hills | ✓ | Vehicle Condition | ✓ | Weight |

Perception Distance: 1 second

- The length of time/ distance you travel to recognize a hazard and decide what action to take.
- Looking at least 15 seconds ahead you the time and space needed to FIND – SOLVE – CONTROL
 - 4 seconds of visible space is the very least amount time required to stop in NORMAL, IDEAL conditions.

Reaction Distance: 3/4 second The length of time it takes to take action.

Stopping Distance: The length of time it takes to take action.

Braking Distance: The length of time/ distance traveled from the time you brake to the time you stop.

Faster speed = longer braking distance

- Braking distance is proportional to the increase of speed. When you double your speed, it takes 4 times longer to stop.

Weight of Vehicle: Energy of motion doubles when the car's weight doubles. It takes twice as long to stop.

REAR ZONE CONTROL

Rear Zone Conditions

1. Use your rearview mirrors to see rear zone conditions.
2. Turn your head to see the condition of the blind spot.

When must you check the mirrors?	When must you check blind spots?
<ul style="list-style-type: none"> ● Before and after braking ● Before and after performing any lateral maneuver ● While stopped ● After seeing any closed or unstable zone condition in the front zones ● Before and after turning ● While stopped 	<p>Before Performing Any Lateral Maneuver:</p> <ul style="list-style-type: none"> ● Preparing for a turnabout or parking maneuver ● Entering the flow of traffic from curbside ● Exiting the flow of traffic to curbside ● Getting side position for right turns ● Merging with traffic flow ● Moving to left turn bay ● Lane changes

Three Rear Zone Conditions

<p>OPEN</p> <ul style="list-style-type: none"> ● No vehicles following closer than 4 seconds. ● No line of sight problems within 15 seconds. ● No vehicles closing in. 	<p>CLOSED</p> <ul style="list-style-type: none"> ● Any vehicle following closer than 4 seconds. ● Any vehicle blocking your view to the rear, or occupying your blind spot. 	<p>UNSTABLE</p> <ul style="list-style-type: none"> ● Any vehicle closing in on your position, a worsening condition
--	--	--

RESPONDING TO TRAFFIC & TRAFFIC SIGNALS

Stopping in Traffic

First in line:

1. Legal stop: Behind lines/ crosswalk/ edge of road
2. Safety stop: Creep forward to see
3. Staggered Stop: See stop line over hood.

Staggered Stop Advantages:

- For trucks that require for more space for wide right turns.
- Extra space for others— vehicles cutting across yellow when turning left.

Point of No Return

That point at which you can no longer stop without entering an intersection.

- 2 seconds away from the intersection
- Speed affects length of space consumed in 2 seconds
 - Faster speed = longer space
 - 20 mph = 30 feet per second
 - 40 mph = 60 feet per second

Stopping in a Line of Traffic:

Stop to see tires and some pavement: What are the advantages?

- ✓ If the front car stalls, you can get around it
- ✓ Space creates escape paths.
- ✓ You have empty space to minimize a rear end impact

Monitor Rear Zone for “Sand Barrels”

- ✓ Inertial buffers
- ✓ Strategically placed
- ✓ Slows and softens the force of impact.

When stopping in traffic, vehicles to the rear can and do serve the same purpose.

- You are vulnerable to high impact rear end forces until there are at least 2 cars stopped to the rear.
- The more cars stopped to the rear, the less the force of impact will be.

When Stopped in Traffic: Continue to monitor the rear zone until at least 2 cars are stopped behind you.

Managing Space & Stopping in Traffic

See CLOSED POT – at least 12 seconds away

- Check rear zone
- Try to time arrival into open zone
- Communicate: Tap brake lights, begin braking
- Control rear zone: adjust speed gradually.

Gradual approach to stop location

- Make smooth stop. See tires and some pavement.
- Monitor rear until at least 2 cars are stopped behind you.
- Delay start 2 seconds.
 - When stopped in a line: Helps the process of creating a 4 second following distance.
 - When stopped first in line: Allows time to search the intersection. Proceed when CLEAR!

Timing Traffic Lights and Turning Left:

Try to Time Your Arrival to Get There Alone. Charging a Closed Zone is a High Risk!

The greatest danger of crash exposure occurs while making a moving left turn.

- ✓ Oncoming traffic also has the green.
- ✓ Will cross most lanes of cross traffic and all oncoming lanes of traffic.
- ✓ Must accurately judge for a safe to cross.
- ✓ May be necessary to stop, increasing the chance of a rear end impact.
- ✓ Opposing traffic may block your view of traffic in oncoming lanes.
- ✓ Oncoming traffic may block your view of pedestrians in the crosswalk – They may have a walk light.

Waiting to turn: Wait behind the crosswalk.

- ✓ Some people think yellow means go faster.
- ✓ You may get stuck in the intersection when light turns red.
- ✓ Blocking the box is dangerous and carries heavy fines.
- ✓ While waiting to turn, wheels should be straight.

Waiting to make a left turn: Search 4 areas when waiting

1. Rear zone for fast closing traffic, monitor until there are sand barrels.
2. Look for a gap to enter.
3. See an open turning path.
4. See light change yellow – see if oncoming traffic is stopping, if able, complete turn without delay.

Turning right on red

- ✓ Permitted unless a sign prohibits the turn.
- ✓ Must make a complete stop.
- ✓ Yield to all traffic and pedestrians.
- ✓ Time your entry into the intersection – create and keep open space to the side of your vehicle.

Search 3 areas when waiting

1. Monitor rear zone for sand barrels.
2. See an open turning path left, front and right zones.
3. See light changes – know who has the green.

LANE CHANGES

Why change lanes?

- ✓ Lane is ending – merge.
- ✓ Preparation for a turn.



To create open space to the front, rear, sides.
Entering or exiting highway or freeway.

Is it necessary?

Check other lane's LOS-POT.

- ✓ Look for stable gap to enter
- ✓ Check zone conditions alongside the new lane.

Find a stable gap

- ✓ Look ahead for open area.
- ✓ Check mirrors

Communicate

- Signal
- Change lane position.

Check mirrors & blind spot

- Don't let your hands follow your head and drift into the other lane.

Smooth & Steady

- Don't slow unless you need to! Increase speed if necessary.
- Move into the new lane at a gradual angle.

Common errors when changing lanes

- Fails to make proper checks for a stable gap.
- Squeezes in: Too little space between you and others when moving into the new lane.
- Forgetting to cancel signal.
- The multi-lane sweep. Crossing more than one lane at a time
- Slowing for no reason.

Can you make a lane changes in an intersection?

Your new lane

- ✓ Adjust your speed to traffic flow in new lane.
- ✓ Cancel your signal.
- ✓ Check rearview mirror.
- ✓ Create space around your vehicle

DRIVING IN RURAL AREAS

Speed is the Biggest Hazard

The higher speeds of rural driving greatly increase the dangers of oncoming traffic, blind curves and hills, and people entering the road at lower speeds.

To drive safely in the country, your stopping distance is never greater than the distance you can see ahead.

- Slow down when approaching a curve or hill so you can stop in time if there is an obstacle like an animal or stalled car.

Deer

Avoiding collisions with deer

- The high time for these collisions is October - December due to breeding deer and when they travel the most.
- Deer activity is highest at dawn and dusk which is the high time for commuter traffic.
- Deer travel in groups: if you see one, expect more.
- See a deer near the roadside, slow down.

Roadside Hazards

- Shoulder may be narrow, uneven and soft.
- Bridges, guardrails, bushes, and trees.
- Entrances to homes, businesses, and farmer's fields are areas to anticipate last moments stops.

Curves Types

Constant Radius: Every curve follows part of the circumference of one or more circles (an arc), A curve that follows the circumference of just one circle is called a constant-radius curve.

Decreasing Radius: This type of corner is very deceptive and dangerous. The further the car goes into the curve, the sharper the curve becomes and more steering is needed.

Increasing Radius: This type of curve is sharper as you enter it and requires a reduction in the amount of steering input as you exit.

Uphill/ Downhill Curves: These curves will naturally make the car gain or lose speed.

Roadway Camber

Positive Camber or Bank: The outside edge of lane is higher than the inside edge of lane.

- Like the inside of the bowl – help to counteract the natural roll forces to the right as the vehicle curves left.

Negative Camber or Bank: The outside edge of lane is lower than the inside edge of lane.

- Like the outside of the bowl – increases the roll forces to the right as the vehicle curves left. A further reduction of speed is required!

Don't be misled by the "A - Okay Outlook."

Drivers don't set out to crash their cars.

- Negative behaviors don't always have a consequence.
- The lack of a consequence misleads drivers to the belief that they are not engaging in negative high risk driving behavior.

Approaching Curves

See every curve as a zone change!

Best Information	Best Speed	Best Lane Position
<ul style="list-style-type: none">• See curve in target area• Check rear zone	<ul style="list-style-type: none">• See radius of curve, helps to determine safest speed.• See 4 seconds of visible road	<p>Check the left and right front zones for traffic and LOS-POT's to determine best lane position for approach.</p> <ul style="list-style-type: none">• Look into the curve- turn your head.• Exit in Lane Position 1

Approaching Hills

- When approaching a hill take LP 1.
- At the hillcrest evaluate your path of travel.
- Search over the hill for open or closed POT.
- Get best lane position for POT.

**Curves and hills
are high multiple risk locations.
Risk factors are contributed by:
Roadway, Vehicle and Drivers
Find zone changes**

DROWSY DRIVING

What is Fatigue? Describes a physical and/or mental state of being extremely tired and weak.

Causes:

- ✓ Results from mental or physical exertion or illness.
- ✓ Disruption of Circadian Rhythm: Our biological clock that regulates our sleep patterns. Sun comes up, we wake up. Sun goes down, we lay down.

Who is most at risk?

Drivers who are:

Sleep deprived, Long distance driving without breaks, Driving at night, Taking medications that increase drowsiness, Driving alone, Driving on boring or rural roads, Traveling frequently

Shift workers, People with sleep disorders

When law enforcement is investigating a crash, what are some clues that may lead to the conclusion that the driver fell asleep at the wheel? Write down 3 examples.

- ✓ Most happen between midnight – 6:00 am & in the mid-afternoon (circadian dip)
- ✓ The driver is alone and more likely to be male
- ✓ A single vehicle drifts off the road and hits a stationary object

- ✓ There is no evidence of braking or evasive maneuvers
- ✓ Most are rear-end or head-on collisions
- ✓ Many involve serious injuries and/or fatalities

Most collisions happen at speeds less than 40 mph and happen within 25 miles of home. Why? People are familiar with the road, think they can make it

PASSING & BEING PASSED

Passing Safely

Should I pass?

- ✓ **Can it be done safely and legally?**
- ✓ **Is the car in front of you traveling at or near the speed limit?** The car you are passing should be traveling both 10 mph slower than both your speed and the speed limit.
- ✓ **Are you going to be turning soon?** You should have enough room to complete the pass and put enough distance between you and the car you just passed.

Do not pass if you cannot complete a pass before a no passing zone.

- ✓ If the road provides a passing lane, wait until you reach the lane before passing.
- ✓ If not, wait until the road marking permit it.

Passing is unsafe and unlawful in areas where LOS-POT Zone Changes are present.

List 9 locations where it is illegal to pass.

Curves, Hills, Railroad crossings, Tunnels, Bridges, Double Yellow, No passing zones, oncoming traffic, intersections

Can I exceed the speed limit when passing?

In Washington is it legal to exceed the speed limit to pass, on two lane highway, one lane going in each direction, for a reasonable distance. Once you complete the pass and return to your lane, it is required for you to slow down and maintain the speed limit.

Passing safely & legally

You will have to judge whether you have enough time and space to pass safely.

- Do not count on having enough time to pass several vehicles at one time.
- As a general rule, only pass one vehicle at a time.

Passing position

Stay back.

- A common mistake for a driver to make is getting too close to the vehicle ahead.
- Gives you room to accelerate before moving into the passing lane and space to return to the passing lane if the pass is no longer safe.

Lane position 2

- Best view of the conditions ahead.
- Look for oncoming vehicles and no passing zones.
 - ✓ **Oncoming vehicles**
 - One way to determine if oncoming traffic is far enough away is if the vehicle doesn't appear to be moving. If you can see it moving closer, it is probably too close.
 - ✓ **Driveways:** Scan for vehicles that may pull into the lane you are going to pass in.
 - ✓ **Vehicles to the rear:** Make sure the vehicle behind you has not already initiated a pass.

Passing the other vehicle

- SMOG
- Avoid hesitation: Accelerate quickly and into the passing lane. By going 10 MPH faster than the vehicle you are passing – it will take you about 10 seconds to complete the pass.

Returning to your lane

Check your rear-view mirror for the front of the car you are passing in rearview mirror.

- ✓ SMOG
- ✓ Change lanes and maintain speed
- ✓ Cancel turn signal.

Being Passed

A slow-moving vehicle with five or more vehicles following, are required to pull over and stop when safe to let them pass.

- When slow vehicle turnout lanes are available, use them.

Communicating with passing driver: Look ahead.

- If it is an unsafe location for the vehicle behind you to pass, move your vehicle to lane position 2.
- When it is safe for the other car to pass, move to lane position 3.
 - ✓ This will give the other vehicle a better view of traffic.

Maintain your speed

It is illegal for you to speed up.

- You could adjust your speed slightly. By slowing down, you let the vehicle pass you in a shorter amount of time.

Once the vehicle has passed: Create space to the front.

- The driver that just passed you may slow down suddenly, forcing you to brake.
- Best decision is to reduce your speed until you have a safe following distance.