

YOU AND YOUR MOTORCYCLE: RIDING TIPS

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The information has been compiled from publications, interviews and observations of individuals and organizations familiar with the use of scooters and methods of training. Because there are some differences in product design, and federal, state and local laws, there may be organizations and individuals who hold differing opinions. Consult your local regulatory agencies concerning the operation of scooters in your area.

Since 1973, the Motorcycle Safety

Foundation has set internationally recognized standards that promote the safety of motorcyclists with rider education courses, operator licensing tests, and public information programs. The MSF works with the federal government, state agencies, the military, and others to offer training for all skill levels so riders can enjoy a lifetime of safe, responsible motorcycling.

The MSF is a not-for-profit organization sponsored by the distributors/manufacturers of BMW, BRP, Harley-Davidson, Honda, Indian, Kawasaki, KTM, Suzuki, Triumph, and Yamaha brand motorcycles. For safety information or to enroll in the *RiderCourse* nearest you, visit msf-usa.org or call (800) 446-9227.



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YOU AND YOUR MOTORCYCLE

A FEW TIPS FOR KEEPING YOUR RELATIONSHIP A HAPPY ONE

congratulations! You have gained admission to the wonderful world of motorcycling. You are going to have a marvelous time.

You also have some new responsibilities, which is what this little booklet is all about.

Motorcycling has grown more and more popular in recent years. We're very glad to see the increase in the number of people who enjoy it. However, we're also interested in keeping this a safe activity.



The way to do this is to tell the rider – whether novice or experienced – about operating a motorcycle safely. Your enjoyment and your safety both depend on mastering not only the art of motorcycling but also the realities of the traffic around you.

The staff at the Motorcycle Safety Foundation (MSF) has prepared this booklet to provide you – the motorcycle rider – with important tips that can help you to ride safely. Read these pages carefully. Thirty minutes spent reading this information can be one of the most valuable half-hours of learning you have ever had.

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THE RIDER - THAT'S YOU!

Riding a motorcycle properly is a skill you can learn. It's not something you are born with, like having red hair or blue eyes. It takes thinking and practice to ride one well. Unfortunately, many riders never learn the critical skills to ride safely and enjoy the sport to its fullest.

The best thing you can do is take a quality, hands-on training course in a controlled, off-street environment. Beginning riders can take the Basic *RiderCourse* developed by the MSF, and can also take the fun, interactive MSF Basic e*Course* at MSF-USA.org.

People who have been riding for some time can also benefit from taking one or more MSF *RiderCourses* designed for experienced riders. You CAN teach an old dog new tricks.

The courses cover topics such as:

- ★ effective turning techniques ★ special riding situations
 - protective gear * effective braking techniques
- ★ traffic strategies ★ evasive maneuvers

FIND THE RIDERCOURSE NEAREST YOU BY CALLING (800) 446-9227 OR BY VISITING MSF-USA.ORG.



WHAT TO WEAR WHEN YOU RIDE

Proper gear is essential to safe riding. Wearing the right clothing always makes the sport more enjoyable and more comfortable, too.

HELMET

Around the block or around the world, it makes sense to leave home with a helmet on your head. IT'S ONE OF THE BEST ITEMS OF PROTECTION YOU CAN USE.

Helmets come in all sizes, from extra small (XS) to extra large (XL). There are also helmets for children. When you buy a helmet, make sure it fits properly. Try it on; it should be comfortable to wear, neither too tight nor too loose. Remember, it is going to spend a lot of time on your head.

A full-face helmet gives the most protection since it covers all of the head and face.

Always fasten the helmet strap. If the helmet is not secured, it is doing about as much good as if it were on the shelf at home.

Did you know that all adult-sized motorcycle helmets now sold in the United States must have a sticker indicating DOT (Department of Transportation) compliance, which means that the helmet meets certain basic impact standards? Don't buy a helmet without one; it may not meet standards. Helmets vary greatly in price and style. Buy one that suits you. Wear it. Fasten it every time you throw a leg over the motorcycle.



A good helmet makes motorcycling a lot more pleasurable because it cuts down on the wind noise and greatly reduces rider fatigue. The days of heavy or cumbersome helmets are gone; they're now made of light new materials with terrific designs and colors to choose from.

If you do drop your helmet onto a hard surface, or it receives a heavy blow, it is probably time to buy a new one. A motorcycle helmet is designed to absorb the impact of a blow, and a helmet should only do that once. If in doubt, get a new one.

EYE PROTECTION

Riding with bare eyeballs is a gamble. Your eyes are precious, and it does not take much to injure one.

A windshield on a motorcycle is not eye protection; a bit of sand or tiny piece of glass can whip in behind it and get in your eye.

Proper eye protection means a highquality visor on your helmet, a pair of goggles, or shatterproof glasses. Settling for less just isn't worth the risk.

Make sure your eye protection is clean and unscratched. If you use a tinted lens or shield for riding in the bright sunlight, take a clear one along as well, in case you are riding after dark.



JACKET

Motorcycle jackets are made in many sturdy materials: denim, nylon in its various guises, corduroy, and leather. The hide of a cow, or any other commonly used leather, offers you the most protection when it comes to abrasion. You can buy leather jackets with zippered vents, which are comfortable to wear even in hot weather as they allow a breeze to

flow through.

PANTS

These should be made of a thick material, such as leather. They resist abrasion and provide protection from the elements. A pair of loose, light cotton pants that flap in the wind is not very good riding gear. A number of companies sell leather riding pants, and you can get pants and jacket combinations that zip together.

Some riders choose jackets and pants with rigid "body armor" inserts in critical areas for additional protection.



GLOVES

Always wear gloves. Even on a hot day. The car in front of you may throw up a stone that hits your fingers. Ouch! Also, bare hands cannot withstand abrasion in the event of a fall.

BOOTS

Over-the-ankle boots, please. Preferably made of strong leather. Your ankles are very complicated; protect them.

A boot with a slippery sole could cause embarrassment when you put your foot down at a greasy gas station. Rubber soles, with a good tread design, offer better gripping possibilities.

RAINGEAR

It rains everywhere in this country, some places more than others. Inevitably you will be caught out in the rain. Why not have a good motorcycle rainsuit along, with raincovers for boots and gloves as well? It's a lot more fun riding in the rain when you're dry.

HEARING PROTECTION

Long-term exposure to engine and wind noise can cause permanent hearing damage, even if you wear a full-face helmet. Whether you choose disposable foam plugs or reusable custom-molded devices, proper protection reduces noise, while allowing you to hear important sounds like car horns. Make sure you follow your state's laws when using hearing protection.

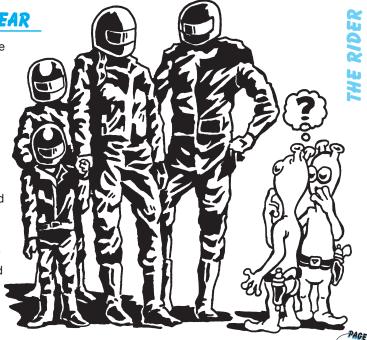


HIGH-VISIBILITY GEAR

The better people see you, the less likely they are to run into you. Brightly colored clothing is preferable to drab, dark clothing.

You can buy special vests which are designed to make it easier for others to see you. Some military bases feel strongly about this feature and require all motorcyclists to wear them.

For nighttime, you can buy clothing that reflects light, and put reflective strips on your helmet and the backs of your boots. Every little bit helps.



YOU AND YOUR LEGAL RESPONSIBILITIES

on't forget, operating a motor vehicle on public roads is a privilege, not a right. You have to prove your competence before your license is issued. If you ignore the laws of your state, your license may be taken from you.

Laws are intended to protect you, not to harass you. You may be the best and safest rider in the country, but these laws help keep incompetent, dangerous drivers off the streets.





Just think of the chaos if we didn't have these laws. Respect them.

LICENSING REQUIREMENTS

These vary from state to state. Most states require a separate license in order to operate a motorcycle. Go and get one. Drop by your local department of motor vehicles and ask for licensing information. You put yourself, your wallet, and your insurance at risk if you choose to violate the law.

If your state requests it, take the written test. And the riding test. Get your motor-cycle operator's license. Become a full-fledged member of the motorcycling fraternity. Some states will waive the riding and/or written test if you complete the MSF Basic *RiderCourse*.

INSURANCE

The registration is easy; pay your money, and you get a license plate to bolt onto the back of the bike.

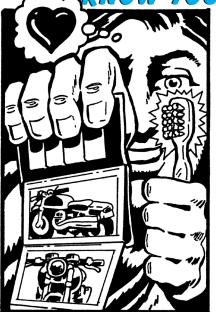
Insurance is harder, but most states require liability insurance. (Check your state's laws.) Shop around for it. Some companies give a discount if you've taken an MSF *RiderCourse*.

You can also get other coverage on you and your bike: comprehensive, collision, medical payments, uninsured driver (the other guy), and more. Ask your insurance agent what each type of coverage can do for you, and how much it will cost.

The better your driving record, the less costly the insurance. It pays to be safe.



KNOW YOUR MOTORCYCLE



o be a safe rider, get to know your motorcycle extremely well. It's very different from a car and makes more demands on the operator. The motorcycle goes and turns and stops smoothly according to your degree of skill and knowledge.

Get to know your owner's manual; not all motorcycles are exactly alike. Types range from large touring bikes and cruisers to nimble sport bikes and standard street machines. The manual gives you many specifics you will find helpful in understanding and maintaining the bike you've chosen.

A close relative to the motorcycle – the scooter – is different from most motorcycles



and you'll need to find out its particular features. Most have automatic transmissions and hand controls for both brakes. As with other small-displacement machines, certain models may not be allowed on high-speed, limited-access highways.

It takes a long time to become properly familiar with a motorcycle, so it is best not to lend it or borrow one. Think of your motorcycle as being as personal as a toothbrush.

THE CONTROLS

Over the years, the basic controls on motorcycles have been standardized.

Put the bike on the centerstand (if equipped) and sit on it. Become familiar with the controls and how to use them. Work the levers and pedals. If something

isn't within easy reach of fingers or toes, maybe it can be adjusted to suit you. Check your owner's manual.

Practice with the turn signals. Find the horn button, so you won't have to look for it when somebody starts backing out in front of you. Figure out how the headlight dimmer switch works before it gets dark.

Do become familiar with the **RESERVE** fuel valve, if there is one on your machine. When you are running along the highway and your engine burbles, indicating it is running out of fuel, you want to be able to turn that reserve on without a second's thought. It is not fun or safe to be fumbling around when you are in gear and moving.



SHIFTING GEARS

Starting off and changing gears requires coordination of the clutch and throttle and gearshift lever. If you don't do things right, the amount of control you have over the bike is lessened.

To start off, pull in the clutch, shift into first gear, roll on the throttle a little, and ease out the clutch. You will become familiar with the friction zone (that's where the clutch begins to take hold and move the bike), and you add a bit more throttle. You don't want to stall the engine, nor do you want to overrev it. There's a sweet spot in there; find it. Shift while traveling in a straight line. Shifting in a curve is not good practice, and something to be avoided.

Become familiar with the sound of your

engine, so you can tell when you should shift without looking at your instruments.

When you downshift to a lower gear, you should (in one swift, smooth movement) be able to squeeze the clutch lever in, rev the engine a little to let it catch the lower gear smoothly, and shift down.

When you come to a stop in traffic, leave the bike in first gear with the clutch disengaged (just in case you want to accelerate out of there in a hurry). Who knows what may be coming up behind you.

BRAKING

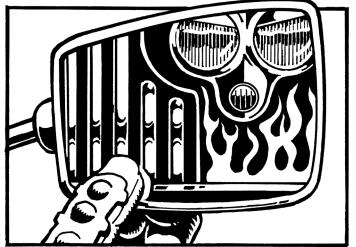
Don't ever forget: the front brake on your motorcycle can supply as much as 70 percent or more of your stopping power. The single most important thing you can learn about braking is to use that front



brake every single time you want to slow down.

Always apply both the front and the rear brakes at the same time. If necessary, apply them hard, but not so hard that you lock up either wheel. A locked wheel, as well as causing the bike to skid, results in downright inefficient braking.

The time to take your left foot off the peg and put it on the ground is just as the bike comes to a complete stop.



When you have the opportunity, practice your braking. You can always get better at it.



TURNING

When you are riding along the road, you lean a motorcycle into a turn. Learning to lean is an essential part of riding a motorcycle. It is a normal function of the bike when you are changing its path of travel – and quite, quite different from turning the steering wheel of your car.

To get the motorcycle to lean in a normal turn, press the handlebar in the direction of the turn and maintain slight pressure on that handlebar to take you smoothly through that particular turn. In other words: press the right handgrip to go right; press the left handgrip to go left. Your instincts to keep the motorcycle on a smooth path while keeping it from falling over usually take care of this without you even noticing it.

(Demonstrate to yourself how a motorcycle moves by pressing a handlebar slightly while traveling in a straight line. The motorcycle will move in the direction of the handlebar you pushed.)

- Slow down before you enter the turn; look as far ahead as possible through the turn.
- Keep your feet on the pegs, and grip the gas tank with your knees.
- Lean with the motorcycle; don't try to sit perpendicular to the road while the motorcycle is leaning over.
- Keep an even throttle through the turn, or even accelerate a little bit.



CHECKING THE BIKE BEFORE THE RIDE

Who knows when Murphy's Law may strike or what nail your tire might have picked up just before you pulled in the other evening. It's not fun to have things go wrong on a motorcycle, but if you spend a minute before you go off on a ride, you can increase the chances that nothing will.

Any information you'll need, such as correct tire pressures or chain adjustment, you'll find in your owner's manual. As soon as you finish this booklet, read the manual thoroughly. You will be much more acquainted with all the specifics of your motorcycle, since it might be slightly different from some other make or model.

Check the tires. They are the most important parts of your bike. If your engine quits, you roll to a stop. If a tire quits – trouble! Make the effort to check the surface of the tires, looking for cuts in the rubber or foreign objects – like a nail. Check the tire pressures with a good gauge. If a tire is low every time you check it, even though you have added the proper amount of air each time, you have a slow leak. Fix it before it becomes a fast leak.

#2 Check the controls. Cables are quite strong and rarely break, but look for kinking or stiffness or anything unusual in their operation.

#3 Check your lights, including brake light, headlights, and turn signals to make sure everything works. Also check your horn and adjust the mirrors.



#4 Check the oil and fuel and, if the bike is liquid-cooled, the coolant levels.

#5 If your motorcycle has chain-drive to the rear wheel, make sure that the chain is properly tensioned and in good shape. Chains do need an occasional cleaning and dose of lubrication.

#6 Make sure the sidestand and centerstand fold up properly, and stay up. If one of the retraction springs is weak or broken or missing, replace it.

#7 As you roll off, check your brakes. Just to make sure they haven't gone away.

Now, go enjoy yourself.



There's not much to maintain on a dayto-day basis on most modern motorcycles, but do what you can do, including your pre-ride checks.

Your bike has a regular service schedule, listed in the owner's manual. Unless you are an accomplished mechanic, we recommend that these services be done by an authorized dealer.

Keeping your bike clean is a good idea. It's astounding how dirt can cover up something that is about to go wrong.

Check your battery every month. Make sure the fluid level is where it should be. If it is low, top it up with distilled water.

Always take your tool kit along when you go for a ride. You never can tell when



it will come in handy. Use the tools to go over the bike occasionally and make sure no screws or bolts are loose.

You should always have your owner's manual with the bike.

It tells you where the fuse box is, in the unlikely chance a fuse blows. It tells you how to get a wheel off, should you have the misfortune of a flat tire.





Flat tires are pretty rare occurrences on motorcycles, but they can happen. In this case, you can either get on the phone to the dealer, or fix it yourself. If you want to know how to do it, we recommend you practice at home, rather than have your first shot at fixing a flat alongside a deserted road in the middle of the night.

TROUBLESHOOTING

Little things may happen to the bike that are cause for concern. Don't panic until you check out the obvious.

#1 If the engine doesn't start:
Is the key on?
Is there gas?
Is the battery too weak?
Or a battery lead loose?
Have spark plug wires fallen off?

Is the ignition cut-off switch in the OFF position?

Do you have the choke in the appropriate position?

#2 If the engine stops when you don't want it to:
Did you accidently hit the cut-off switch?
Did you run out of gas?
Did a fuse burn out?

#3 If the bike begins to feel funny as you go down the road, especially in a curve, stop as soon as it is safe to pull over and check your tires. You may have a flat. Check your suspension. You may have it adjusted incorrectly. Your owner's manual is the best reference for proper settings and adjustments.

of prevention is worth about a ton of cure. Pushing a motorcycle can get old very fast.







HIGHWAY, BYWAY, STREET AND ALLEY

his is what it all comes down to: you and the road. There are millions and millions of miles of roads in this country, from one-lane dirt to 12-lane highway.

When you ride, the surface conditions, traffic, and the weather can be changing. You have to be constantly aware of a lot of things. Daydreaming when you're riding a motorcycle isn't a good idea. Things happen fast out there on the road, and you have to be prepared for them.





THE SEE SYSTEM

Here is a good reminder for riding safely in traffic.



SEARCH AROUND YOU
FOR POTENTIAL HAZARDS.



EVALUATE ANY POSSIBLE HAZARDS, SUCH AS TURNING CARS, RAILROAD TRACKS, ETC.



EXECUTE THE PROPER ACTION TO AVOID THE HAZARD.

This SEE strategy is a mental system for safe motorcycling. Use it effectively and you'll cover many safer, happy miles on your motorcycle.



INCREASING YOUR VISIBILITY TO OTHERS

What's the most common explanation from the automobile driver who just turned in front of a motorcyclist? "Gee, officer, I didn't see him."

It's a sad truth. We're not as big as a Mack truck, but we are visible. However, too often motorists don't see us because they aren't looking for motorcycles.

You have to attract their attention.

All motorcycle headlamps in recent years are hard-wired,





which means that the headlight goes on whenever the engine goes on. If you have an earlier model, turn that headlight on every time you go out. It helps – even on a bright, sunny day!

We've said it before, we'll say it again: wear bright clothing and utilize retroreflective material (it shines when a beam of light hits it) whenever appropriate. The biggest thing that a following driver usually sees is your back. Make it stand out.

Always signal your intentions. Change lanes or make a turn using your turn signals. Be sure that the people around you know what you are about to do.

And it helps to assist your turn signals with hand signals at times. Remember to cancel your signals when you've completed your maneuver; otherwise,

drivers are getting false information from you...and you could cause yourself trouble.

Don't be shy about using your horn in some situations. If drivers are dozing, or about to pull an unthinking maneuver, give them a **BEEP**. You want to make them aware of what they are doing. And of your presence.

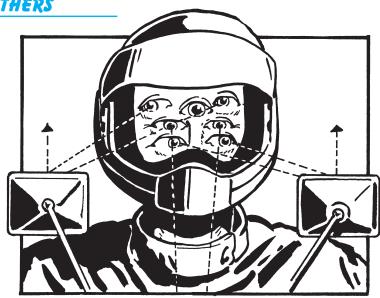
Position your motorcycle where it can be seen. Don't put yourself behind a large truck or ride in the blind spot of a vehicle near you. Get out there, take up a whole lane, make yourself seen.

Another strategy is to pretend you're invisible. If you assume other motorists can't see you, you'll tend to ride in a hyperaware mindset and notice more details in your surroundings.



HELPING YOU TO SEE OTHERS

The other half of the visibility battle is being alert and seeing everything around you. Use your eyes effectively. Keep them moving. Don't get fascinated by that '53 Corvette off to your right. Or go rubber-necking at an accident scene. If your eyes are locked on one thing, you may be ignoring some situation that could affect your ride.





Look ahead. Look to the side. Look in your mirrors. Look over your shoulders. Keep looking! Anticipate the oncoming, left-turning driver, the reckless fool coming up behind you, the car poking its nose out of the driveway, the guy beside and a little behind you who's moving across the lane divider.

Never let your eyes fix on an object for more than two seconds. Keep looking around.

It's one thing to see, another to have the time to react. No tailgating.

When you're riding in town, at speeds under 40 mph, always keep a two-second gap between you and the car in front. For example, when he goes by a phone pole, count "one-thousand-one, one-thousand-two" and then you should pass that pole.

Out on the open road, with higher speeds, you should adjust your gap to three or four seconds or more, depending on your speed. Use the same reference-point technique to determine how many seconds behind you are.

INTERSECTIONS

It probably surprises no one to know that the majority of collisions between a motorcycle and a car happen at intersections – the most frequent situation being that of an oncoming vehicle turning left in front of a motorcycle.

Any intersection is potentially hazardous, whether it has stoplights, or stop signs, or is unmarked.

Always check for traffic coming from the side, left and/or right.



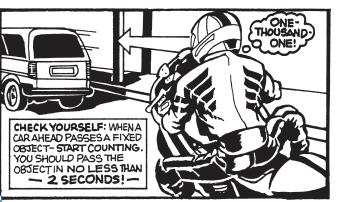
Check for traffic behind you, to make sure no one is about to run up your tailpipe.

PASSING OTHER VEHICLES

The technique for passing another vehicle is the same whether you are riding a motorcycle or driving a car.

First, before passing, you should be two (or more) seconds behind the vehicle you want to pass, and have positioned yourself in the left-hand side of your lane.

From this position, you have to check oncoming traffic and the road to make sure you have enough distance to pass





safely. Don't even think about overtaking if a corner is coming up.

If you have room ahead to make the pass, look in your mirrors, turn the signal on, and always look over your shoulder. That head check is essential: somebody in a hot rod might have just pulled into your blind spot, intent on overtaking you. Always remember the head check.



Everything clear?

Move into the left lane and pass the car/ truck/buggy/whatever. Do not crowd close to the vehicle you are passing; you should be more or less in the center of the lane you are passing in. Get by this vehicle as quickly as possible, without exceeding the speed limit. If it is a slow-moving truck in front, you might want to shift down a gear so you can accelerate more rapidly as you go around it.

Before returning to your original lane, signal your intention and do a head check to make sure that there is enough room between you and the vehicle you just passed. Ever have someone speed up just after you've overtaken them? Hmmmmm!

Return to your lane, cancel your signal, and proceed merrily along... with care.

NIGHT RIDING

Quite often you'll have to ride at night. After all, it is dark 50 percent of the time.

Dusk is really the worst time, when people's eyes are adjusting from daylight

to headlights. Be especially careful just after sunset.

Usually it is advisable to slow down a little when riding at night, especially on any sort of winding road.

Use your own headlight and those of other traffic to keep an eye on the road surface. It is more difficult at night to see the patch of sand or something that fell out of a pickup.

The distance between you and the vehicle in front becomes even more important at night. Give yourself room to react.

Wear a clear faceshield without scratches. A scratched shield can create light refraction that might confuse you; two headlights can look like four, and you



don't know who is coming from where. One of your biggest hazards at night may be a "who" coming from a few hours of drinking. Be especially alert for drivers and vehicles doing odd things, like weaving in and out of traffic, and give them lots of room.



HANDLING SPECIAL SITUATIONS

In the best of all worlds the temperature would always be 78 degrees, the wind would be at our backs, and no emergencies would arise. Since it is a

slightly imperfect world we live in, we should be prepared for whatever happens.







EMERGENCY BRAKING

Sometimes you have to stop as quickly as possible. Here are some tips on how to get you and your motorcycle halted pronto:

- Apply both brakes to their maximum, just short of locking them up. Practice in an open, good-surfaced place, such as a clean parking lot.
- Keep the motorcycle upright and traveling in a straight line; and look where you're going, not where you've just been.
- ★ You don't want to lock the front brake. If the wheel does chirp,

- release the brake for a split second, then immediately reapply without locking it up.
- If your rear wheel locks up, do not release the brake. If your handle-bars are straight, you will skid in a straight line, which is all right. You have a more important priority and that is to get stopped! Read on and we will talk more about "skids."



BRAKING WHILE LEANED INTO A CURVE

You should try to avoid this, but sometimes it might be necessary.

You can brake (with both brakes) while leaned over, but you must do it gradually and with less force than if the bike is standing up straight.

For maximum braking efficiency in an emergency (when traffic and roadway conditions permit), stand the bike up straight; brake hard.

COPING WITH A SKID

A skid – that's when your heart leaps up to your throat because your tires have lost traction!





You might hit a patch of sand on a mountain curve, or a puddle of oil as you're slowing for a stoplight. It's a frightening experience on a motorcycle, but you can handle it.

In a highway-speed, sand-in-the-corner skid, steer slightly in the direction of the skid. (If you're leaned to the left and skidding to the right, turn those handlebars a bit towards the right.) Chances are you will clear the patch of sand, the tires will grip the pavement again, the bike will stand up, and you'll continue on your way.

Should you hit a slippery bit while you're braking for a stop sign, and one or both wheels lock up, you want to get those wheels rolling right away. Release the brakes for an instant, then reapply a little more gently. You want those tires to

have traction.

At higher speeds, when traction is good and the rear wheel skids when braking hard, do not release the rear brake.

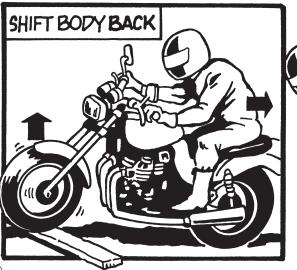
If your back end is skidding sideways because the tire is on a slick spot and simply spinning, ease off on the throttle. A spinning wheel provides no more control than a locked wheel.

You might be in one of those two-mileper-hour parking lot scenarios, a mild, low-speed skid when your front wheel starts to go out from under you. A foot on the ground may keep the bike upright and the rubber side down. This is not an easy thing to do, and should only be done if all else fails.



RIDING ACROSS POOR ROAD SURFACES

Here are a few simple rules you should follow when you anticipate coping with sand, mud, water or any loose surface or obstruction in the road:







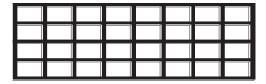
- ★ Downshift and slow before you reach the problem area.
- If there is traffic in the area, make sure that the drivers are aware you are slowing.
- Try to cross the bad surface in a straight line, or at least do not change direction or speed abruptly.
- Stay ready to maintain the balance of the motorcycle.
- If you are moving along and have to go over an obstruction that is lying

- across the road, like a 2x4 piece of wood, rise up on the footpegs and shift your weight toward the back of the saddle as your front wheel comes up to the obstacle. This will make it easier for the front wheel to bounce up and over. Then move your weight forward to help your rear wheel get over.
- Do not accelerate until your bike is completely over the obstacle.



STEEL BRIDGE GRATINGS AND RAIN GROOVES

Steel-mesh bridges can be extremely unnerving. Keep an even throttle and keep the bike straight. Don't grip the handlebars too hard. If there is a vibration in the handlebars, do not fight it. This is a natural feedback from your tires going over these thousands of little squares.



Some parts of the country have rain grooves in the highways. They're not very popular among motorcyclists. This is

when the road surface, usually concrete,
has several dozen grooves running
lengthwise down each lane. The purpose
of the grooves is to prevent cars and
trucks from losing traction when it rains.

The reaction of the bike to these grooves often has to do with the tread pattern on the tires. Sometimes it feels as though the motorcycle is getting a flat tire, with a squishy back-and-forth sideways motion. Don't worry, just keep going straight. Don't fight the handlebars. There is nothing dangerous about these rain grooves – it just feels funny to ride on them.

RAIN

Haul out the raingear you've stowed in a handy spot. Make sure your rain gloves and rain boots fit properly. Poorly fitted ones can lessen your ability to brake and shift.

Be most cautious when it first starts to rain. That is when the water goes into all the dimples in the road, and the oil residue from passing vehicles floats to the top. That gets slippery! A wise motorcyclist will stop for a cup of coffee when it starts to rain; who knows, it could all be over in 15 minutes, and you won't even have to put on the rainsuit.

After a while the oil will be washed off to the side of the road. However, traction on a wet surface may not be as good as on a dry road. Be careful.





WIND

Strong winds can create problems for a motorcyclist. A constant 25-mph wind from the side can make for less-than-happy riding. Gusty wind is the worst. You might have to lean a bit into the wind to maintain your position. Keep the motorcycle on the side of the lane that the wind is coming from. This is in case a big blast moves you over a bit. Expect it and be ready to react.

ANIMALS

The biggest problem is with domestic animals, especially dogs. Most seem to have an urge to chase motorcycles. Those that don't chase often are known to blunder into the path of moving vehicles. Don't let one distract you and cause a spill.

Here are three rules:

#1 Slow down well before you reach the animal.

#2 Do not – repeat – do not kick at the animal.

#3 If the animal looks like he's going to intercept you, speed up just as you are about to reach him. It will throw his timing off.

If a deer jumps out in front of you on a country road, but is far enough ahead not to be worried about – watch out for its mate. They tend to travel in pairs. Hitting a deer with a motorcycle is a tough way to put venison on the table.









EQUIPMENT FAILURES

If your motorcycle is properly maintained, you greatly reduce the possibility of any equipment failure. However, just in case...

BLOWOUTS

If you use tires of good quality, keep them at the proper pressure, and change them when the tread is worn, the chances of having a blowout are small.

However, should it happen to either of your tires, you must act quickly and properly.

#1 Do not use the brakes; braking hard will only make things worse. If you must use some brake, apply gradual pressure to the brake on the good tire and ease over to a safe spot to stop.

#2 Ease off on the throttle and slow down gradually; rapid deceleration could throw the bike out of control.

#3 Hold those handlebars firmly; a great shuddering may take place as the out-of-round tire flops against the pavement, but you are concerned only with keeping that front wheel pointed ahead until you stop.



STUCK THROTTLE

Most riders have had bad dreams about this, but few have experienced the problem.

That is why all contemporary motorcycles have a cut-off switch by the right thumb. Just in case. Practice flipping the cut-off switch. Chances are you will never have a throttle stick, but if you do, you'll know how to deal with it.

As you hit the cut-off switch, pull in the clutch (you will probably be in gear); then look for a safe place to coast to a stop.

BROKEN CLUTCH CABLE

Imagine you are cruising along in fifth gear; you want to shift down; you pull in the clutch lever – and there is no return action. It just lies up against the handgrip.

No fun, but not dangerous. You can shift the bike without a clutch. This is not advisable unless necessary, but it can be done. Back off on the throttle and shift down a gear.

If you have a sensitive foot, you can probably find neutral before coming to a complete stop. If not, get set for a jerky halt.



GROUP RIDING & PASSENGERS

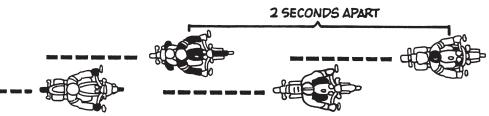
s we said earlier, motorcycling is a sociable sport, so chances are very good you'll soon be riding with friends on their motorcycles, and have others who want to be passengers.

As with any sport, it's nice if the participants all have a general idea of what to do.

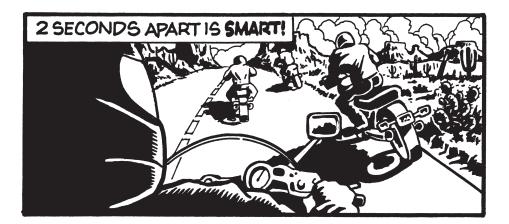
RIDING IN A GROUP

It is useful if, before taking off on a group ride, you get two or three hand signals organized amongst the participants: "let's stop; need gas; I'm hungry."

A few rules for the group:





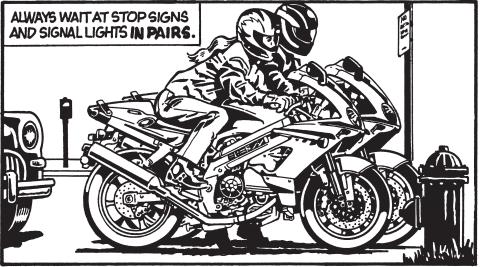


- Riding in a group of more than five motorcycles can become confusing both for the group and other traffic around you. If there are too many people, break it up into smaller groups.
- Ride in a staggered formation, with

- first bike on the left side of the lane, second on the right side, etc., but not side by side.
- Always keep at least a two-second following distance from the motorcycle directly in front of you.



- At a stoplight or stop sign, wait in pairs.
- ★ Pass other vehicles individually, when safe – not in pairs or groups.





CARRYING A PASSENGER

Company is always nice. Some company weighs 100 pounds, other company weighs 200 pounds.

Putting extra weight on the motorcycle will affect the handling. Adjust your suspension and tire pressures to compensate for the amount of company you've brought along. (Check your owner's manual.)

Also realize that your braking capabilities have changed; take that into account. The more weight you have on the motorcycle, the longer it may take to stop.





Passengers should be instructed to always mount from the same side, and to warn you before they climb on. This goes a long way to preventing a muddled heap lying on the ground.

Passengers need the same protection that you do – proper clothes and helmet. Ten-foot scarves flapping in the wind may look dashing, but not on a motorcycle. You don't want shoe laces or loose pants legs catching on rear wheel or chain parts.

Never carry anyone sidesaddle. Passengers should always straddle the bike with their feet securely planted on the footrests. Tell passengers not to put a foot down when you come to a stop.

Show them where the hot things are – like header pipes and mufflers. Caution

passengers against coming in contact with the hot parts to prevent any injuries. Also, rubber soles can melt and leave a mess.

Instruct passengers to hold onto you at your waist or hips, or the bike's handholds. Ask them to lean forward slightly when you leave from a stop or accelerate along the highway.

Also, when you brake, passengers should be firmly braced against your waist and should lean back slightly. You don't want their weight to shift forward.

Advise passengers not to lean unless you do. You do not want the person behind hanging off the bike at 30 degrees; that will do funny things to the steering. However, when you lean going around a corner, passengers should defi-

nitely lean as well. So have them look over your shoulder in the direction of the turn when you go through a corner; that will put the weight where you want it.



LOADING THE MOTORCYCLE

hether it is a carton of milk from the convenience store, or camping gear for a three-week trip, you will end up carrying more than people on your motorcycle.

All loads should be tied to the machine. Do not balance a bag of groceries between your legs for a short ride home. Strap it to the back seat with bungee cords or an elasticized cargo net.

A great carrying device is the tank bag. It puts the weight where it should be – near the bike's center of gravity. Make sure it is properly secured and remember never to carry anything on the gas tank or inside the fairing that might interfere with the steering of the bike. Just imagine what happens if the



bars won't turn far enough – big trouble.

There are appropriate places to carry loads on a motorcycle, but they do not



include your front forks or fenders. If your machine comes with saddlebags a travel trunk, you're set. If you have none of this, you can always buy a luggage rack or throw-over bags; they are very useful items.

When you load saddlebags, keep equal weight on both sides. This is even more important when you are using soft throwover bags, as an imbalance can cause one side to drop down and rest on the muffler. A blazing saddlebag is no joke.

Keep the weight relatively light in your travel trunk or on your luggage rack. Being aft of the rear axle, this is the worst place on the motorcycle to carry much weight. It can turn a well-handling motorcycle into a poor-handling terror. Sleeping bags go great back there; a 50-pound sack of dog food does not.





Check the security of the load frequently, and make sure nothing is dangling. It is one thing to lose part of your luggage, quite another to get it tangled up in a wheel.

Above all, DO NOT EXCEED THE GVWR (Gross Vehicle Weight Rating) of your motorcycle! You might find that figure on the plate attached to the steering head; sometimes it is found on the frame; but the best place to look is in the owner's manual. It is written in pounds, and it includes the weight of the motorcycle, all gasoline, oil and coolant, the rider(s), and the luggage.



DRUGS, DRINKING & RIDING

A WORD:

e kid you not. Mixing alcohol or other drugs with motorcycles is like putting nitro with glycerine: there's a dangerous reaction.

Alcohol is a depressant. The first thing to go is your judgment – and good judgment is essential. Bad judgment gets you into trouble. Drinking riders tend to run off the road more often, have a high percentage of rider error, and use excessive speed for conditions around them. Those are the statistics – and that spells trouble.

It takes a long time for the effects of alcohol to be cleared from your body, roughly one hour for each bottle of beer, glass of wine, or shot of liquor. Nothing but time will shed that alcohol – not showers, coffee, or other so-called remedies.

Have a couple of beers if you wish, but have them at home. Then you don't have to go anywhere afterward. If you are going to drink, don't even think about riding.

While cannabis (marijuana) may be legal in your state, it is not legal, safe, or wise to ride under its influence, due to its tendency to distort perception of time, space, and speed. Other over-the-counter, prescription, or illegal drugs may similarly have sideeffects that increase the risks of riding.

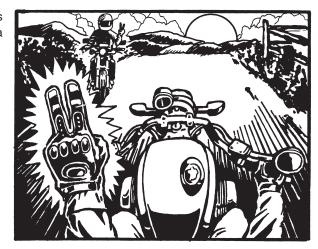


CONCLUSION

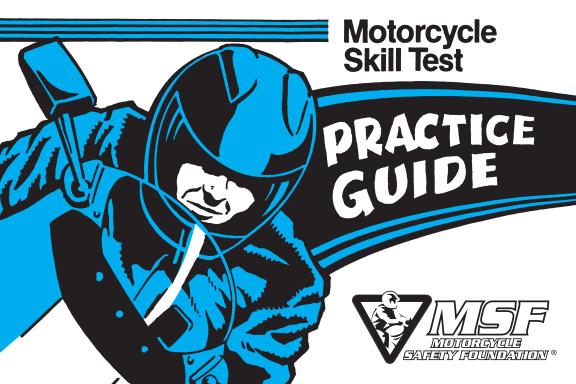
THERE IS NO CONCLUSION. MOTORCYCLING IS A CONSTANT LEARNING EXPERIENCE.

you'll never know all there is to know about riding. But a year from now, you'll know a lot more than you know now – and 10 years from now; 50 years from now. If Methuselah had been a motorcyclist, he'd have learned quite a bit in his 969 years – but not everything.

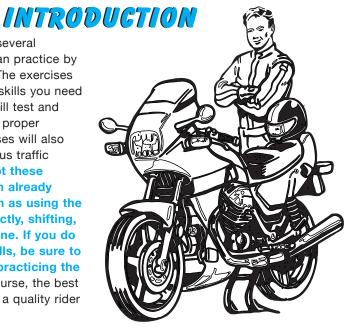
Go forth, have a good time, don't do anything foolish, and we'll see you on the road. It's going to be a great ride!







his booklet describes several exercises which you can practice by yourself or with a friend. The exercises will help you develop the skills you need to pass the motorcycle skill test and receive your license.* The proper execution of these exercises will also help prepare you for various traffic situations. Do not attempt these exercises unless you can already perform basic skills such as using the clutch and throttle correctly, shifting, and riding in a straight line. If you do not have these basic skills, be sure to seek instruction before practicing the skills in this guide. Of course, the best place to learn to ride is in a quality rider education program.





* Contact your local licensing agency for exact layout of the skill test in your area.

- * Read the entire guide before you practice.
- ★ Take the guide with you for reference when you practice.
- Keep practicing until you can do each exercise without a problem. Do not practice for more than one or two hours at a time. When you get tired, you cannot practice effectively.

FIND THE RIDERCOURSE NEAREST YOU BY CALLING (800) 446-9227,
OR BY VISITING MSF-USA.ORG



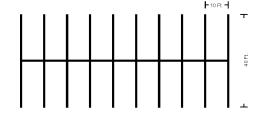
CHOOSING A PRACTICE AREA

A well-marked parking lot is the best practice area. Be aware, however, of oil left by parked cars. Look for parking lots that are not used all the time at shopping centers, schools, churches or community centers. For instance, you might use a school lot in the evening hours, or a shopping center early in the morning.

Once you've selected a suitable location, it's important to gain permission from the owner.

Keep this basic parking lot diagram in mind when setting up the exercises.

If the parking lot you choose doesn't have lines, use the dimensions



diagrammed here. Mark them using a tape measure and chalk.

Traffic is your greatest concern. Make sure you check to the front, sides and rear before doing an exercise. Also, make sure you watch out for children and animals and be considerate of others in the area.



SAFETY PRECAUTIONS

The practice exercises are not dangerous. However, a few safety precautions should be followed:

- Wear proper protective clothing that includes: helmet, eye protection, gloves, boots or shoes that cover the ankles, long pants, and long-sleeved shirt or jacket.
- Inspect the motorcycle for defects before you start. If you are not familiar with the inspection procedures for your motorcycle, check the owner's manual.
- Check the practice area for loose gravel, glass, oil left by parked cars, or other things that could be a problem.

- If possible, take a friend along to:
 - **A.** Watch out for traffic.
 - **B.** Help you if anything goes wrong.

WHAT TO BRING

Bring 6 small objects that you can use as markers. Milk cartons or plastic bottles with a little water or sand in the bottom work well. Do not leave them at the practice area when you leave. If you cannot find any small objects, bring some chalk to draw markers on the pavement.



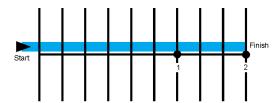
NORMAL STOP IN A STRAIGHT LINE

Practicing this exercise will help you stop smoothly, such as for stoplights and stop signs.

Accelerate straight ahead across the parking lot between 15-20 mph (shift to second gear). Begin to slow down and downshift at the first marker. Try to come to a smooth nonskidding stop with your front tire next to the last marker.

- Keep head and eyes up.
- Keep the motorcycle on a straightcourse.
- Gradually apply both brakes and squeeze the clutch, downshifting to first gear at the same time. Keep the clutch squeezed in.
- Do not release the front and rear brakes until you come to a complete stop.
- When stopped, the left foot should come to the ground first.





COMMON PROBLEMS

- Rear tire skids.
- Overshooting marker.
- 3. Unstable during stop.

BASIC CORRECTIONS

- 1. Apply less pressure on the rear brake.
- 2. Begin slowing and braking sooner, or try slightly more pressure on the brakes.
- 3. Keep head and eyes up during stop. Delay braking until necessary.

QUICK STOP IN A STRAIGHT LINE

Practicing this exercise will help you stop quickly when something suddenly appears in your path.

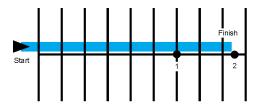
DIRECTIONS

Approach marker 1, upshifting to second gear. As your front tire passes marker 1, downshift and begin braking. Try to stop before marker 2. Practice this at 10 mph, then 15 mph, then 20 mph. Do not exceed 20 mph.

COACHING TIPS

- Keep head and eyes up.
- When stopping, apply both brakes and squeeze the clutch, downshifting to first gear. Keep the clutch squeezed in.
- Keep handlebars straight. Squeeze front brake don't grab.
- Do not release brakes until fully stopped.
- When stopped, the left foot should touch the ground first.





COMMON PROBLEMS

- 1. Overshooting the final marker.
- Motorcycle slides sideways, or leans to one side.
- **3.** Engine overrevs when using the front brake.

BASIC CORRECTIONS

- Apply more pressure to brakes; however, avoid locking front brake by squeezing, not grabbing, the lever.
- Sit straight on seat and do not turn handlebars, look straight ahead. NOTE: If the rear wheel inadvertently locks, keep steering the motorcycle straight.
- Close the throttle before braking. Squeeze the front brake with all four fingers. Avoid pulling back on the throttle when applying pressure to the front brake.

WEAVES

Practicing these exercises will help you in making lane changes in traffic or changes in direction.

DIRECTIONS

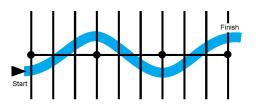
Drill 1 – 30-foot Weave – Begin at one end of the parking lot lines or markers. Go to the right of the first marker, left of the second, right of the third, and so on. Practice this at 15 mph.

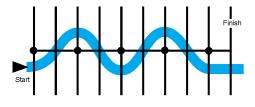
Drill 2 – 20-foot Weave – Proceed the same as you did in the 30-foot Weave. Practice this at 15 mph.

COACHING TIPS

- Keep head and eyes up and knees in.
- Weave by pressing on the handlebars in the direction you want to go. (Press right handgrip to lean right; press left handgrip to lean left.)
- Maintain a steady speed.
- Do not brake while performing weave.







COMMON PROBLEMS

- 1. Swinging too wide away from markers.
- 2. Hitting markers.
- 3. Too much handlebar movement.

BASIC CORRECTIONS

- 1. Keep eyes up, looking forward, decrease lean angle; press less on the handlebars.
- Keep eyes up, looking forward, increase lean angle slightly; press more on the handlebars.
- Maintain a steady, stable speed. Don't slow down or brake.



BASIC TURNS

Practicing this exercise will help you with turning such as in curves on highways and winding roads.

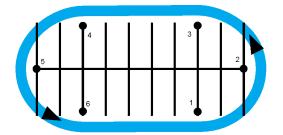
DIRECTIONS

Ride around the oval indicated by markers 1, 2, 3, 4, 5 and 6. Adjust your speed on the straightaways by braking as necessary before the turn. Hold a steady throttle around the markers at the ends of the oval. Repeat the exercise in the other direction.

COACHING TIPS

- ★ Beginning speed of 10-15 mph.
- Slow down before the turn. Brake if necessary.
- Keep your head up and looking throughout the turn, far and near, as well as to the sides. Lean with the motorcycle.
- Hold a steady speed or roll on the throttle gently through the turn.





COMMON PROBLEMS

- 1. Swinging wide of the turn.
- Cutting corner too close or turning too sharply.
- Exiting wide out of the turn, making the oval into a circle.

BASIC CORRECTIONS

- Turn your head in the direction of the turn.
 Apply more pressure on the inside handlebar to lean more.
- Turn your head in the direction of the turn. Do not look down. Apply less pressure to the inside handlebar. Keep a steady throttle.
- Slow more before the turn. Turn your head in the direction of the turn. Apply more pressure on the inside handlebar to lean more.

NORMAL TURNS

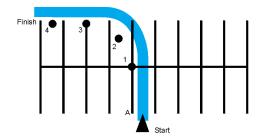
Practicing this exercise will help you further refine your turning skills.

DIRECTIONS

Start, facing marker 1 at a distance sufficient enough to increase speed to 15-20 mph. At point "A," reduce speed, using both brakes. As you start your turn at marker 1, look to the exit point and gently roll on the throttle throughout the turn. Roll on past marker 3 and stop beyond marker 4. Practice turning in both directions.

- Slow down before the turn using both brakes. (Before marker 1.)
- ★ Look through the turn, far and near, as well as to the sides.
- ★ Lean with the motorcycle.
- Gradually increase speed throughout the turn. (Past marker 3.)





- 1. Swinging wide of the turn.
- Cutting corner too close or turning too sharply.
- 3. Slowing and motorcycle tends to straighten up.

- Slow down more before entering the turn, turn your head in the direction of the turn, press more on the inside handlebar.
- Keep head and eyes up. Do not look down. Turn your head in the direction of the turn. Press less on inside handlebar.
- 3. Keep a smooth, steady throttle or slightly increase throttle to stabilize motorcycle.



SHARP TURNS WITHOUT STOPPING

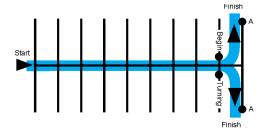
Practicing this exercise will help you to make sharp turns such as pulling out of parking spaces or driveways, and turning into a driveway or onto a narrow street.

DIRECTIONS

Begin riding straight across the parking lot, increasing speed to approximately 10 mph. Just before reaching the "Begin Turning" markers, slow down and use both brakes to adjust your speed. Then release the brakes, turn the handlebars, lean the motorcycle slightly in the direction of the turn and turn your head, looking through the intended path of travel. Use controlled clutch release and throttle as you make the sharp turn. Practice finishing your turn inside line "A," without touching it.

- Use both brakes to reduce speed before the turn.
- Keep head and eyes up; look through the turn to achieve a good visual picture of what lies ahead.
- Turn the handlebars and lean the motorcycle in the direction of the turn.
- Use smooth clutch release and throttle as you exit.





- 1. Turning too short or too long.
- 2. Motorcycle stalls.
- 3. Motorcycle begins to fall into the turn.
- 4. Traveling too fast to make turn.

- Keep head and eyes up and look through the turn.
- 2. Use clutch and throttle smoothly to maintain necessary power to rear wheel.
- Keep head and eyes up and look through the turn, keep just enough momentum after braking to carry you through the turn.
- **4.** Slow adequately with both brakes before turning.



SHARP TURNS FROM A STOP

Practicing this exercise properly will help you make sharp turns from a stop such as exiting a parking lot or turning into a narrow street.

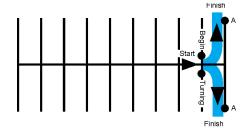
DIRECTIONS

Start at "Begin Turning" markers with the motorcycle straight. Turn the handlebars, lean the motorcycle slightly in the direction you are turning, and turn your head to look through the intended path of travel. Use controlled clutch release and throttle as you make the sharp turn.

Finish your turn as close to line "A" as you can without touching it.

- Keep head and eyes up; look through the turn so you can judge its sharpness and length.
- Turn the handlebars and lean the motorcycle in the direction of the turn.
- Use smooth clutch release and throttle as you exit.





- 1. Turning too short or too long.
- Motorcycle stalls or begins to fall into the turn.

- Keep head and eyes up and look through the turn.
- Concentrate on maintaining steady speed or slight acceleration and smooth clutch release. Look through the turn.



OBSTACLE SWERVE

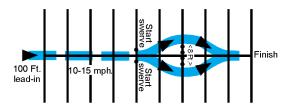
Practicing this exercise will help you swerve to avoid a potential hazard.

DIRECTIONS

With about 100' lead-in, approach the first pair of markers. As you reach the markers you should be going 10-15 mph. As your front tire passes the first pair of markers, make a swerve (right or left) avoiding the imaginary barrier or obstacle. Make sure you've decided on which direction you intend to go before starting the exercise. Do not stop or apply brakes while performing the swerve.

- To swerve right, press right until you have cleared the markers, then press left to resume straight ahead.
- Keep head and eyes up and knees in.
- Press on the handlebar in the direction you want to go. (Press right handgrip to go right; press left handgrip to go left.)
- ★ Do not brake and swerve at the same time.





1. Unable to properly complete the swerve.

BASIC CORRECTION

1. Keep a steady speed. Maintain pressure on the handlebar until you have cleared the marker, then press on opposite handgrip to straighten into the new path.



NORMAL STOP ON A CURVE

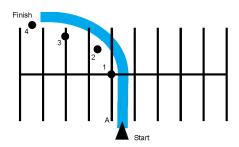
Practicing this exercise will help you stop smoothly in a curve.

DIRECTIONS

Ride to the outside of line "A," upshifting to second gear. As you reach marker 1, turn in the curved path indicated by markers 2, 3, and 4. Once you enter the curved path, gradually apply both brakes and downshift. Do not release the clutch. Try to come to a smooth stop with your front tire next to marker 3. Practice this at 10 mph, then at 15 mph.

- Keep head and eyes up; maintain a good visual picture of where you are going.
- Straighten up the motorcycle and square the handlebars before you stop completely.
- Use both brakes smoothly to stop.
- Keep feet on pegs until almost stopped.
- When stopped, the left foot should touch the ground first, and you should be in first gear.
- Do not grab the front brake or skid either tire.





- 1. Overshooting the final marker.
- 2. Motorcycle nearly falls over.
- 3. Rear wheel skids.

- 1. Gradually apply more pressure to the brakes as motorcycle straightens more.
- Just before stopping be sure the handlebars are square with the motorcycle. Keep eyes up. Don't grab front brake.
- Apply less pressure on the rear brake and make sure the motorcycle is straight up as you stop.



QUICK STOP ON A CURVE

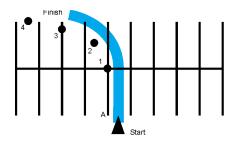
Practicing this exercise will help you stop quickly when something suddenly appears in your path on a curve.

DIRECTIONS

Ride to the outside of line "A." Start, facing marker 1 at a distance sufficient enough to increase speed to 10-15 mph in first gear. As you reach marker 1, turn in the curved path indicated by markers 2, 3, and 4. When your front tire passes marker 2, first straighten the motorcycle, then begin braking. You should be stopped before marker 3. Practice this at 10 mph, then 15 mph. Do not exceed 15 mph.

- Keep head and eyes up; scan throughout the turn.
- Straighten motorcycle, then apply both brakes, stopping as quickly as possible.
- Keep feet on pegs until almost stopped.
- When stopped, the left foot should touch the ground first.
- Do not grab the front brake or skid either tire.





- 1. Overshooting the final marker.
- 2. Motorcycle nearly falls over.

3. Rear wheel skids.

- Apply maximum pressure to the brakes once motorcycle is straightened from the lean angle.
- Straighten up the motorcycle first, then apply the brakes. Be sure the handlebars are square with the motorcycle. Keep eyes up. Don't grab front brake.
- Apply less pressure on the rear brake and make sure the motorcycle is straight up as you stop.



Fifth Edition, July 2020 Illustrations: George Toomer

For more information contact: Motorcycle Safety Foundation (949) 727-3227 • MSF-USA.org

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