



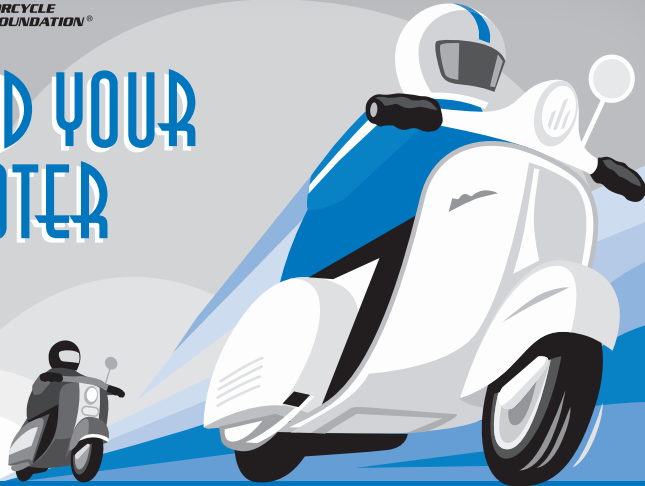
YOU AND YOUR SCOOTER



RIDING TIPS



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RIDING TIPS

Illustrations by Glenn Reid

You and Your Scooter: 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.

Foreword	1	The Controls	14
Introduction	4	Braking in a Straight Line	14
The Scooterist	6	Turning	16
What to Wear When You Ride	8	Checking the Scooter Before the Ride	17
Eye Protection	9	Maintenance	19
Jacket	10	Troubleshooting	20
Pants	10	Highway, Byway, Street and Alley 22	
Gloves	10	The SEE System	22
Boots	11	Increase Your Visibility to Others	23
Rain Gear	11	Helping You to See Others	24
High-Visibility Gear	11	Intersections	26
Your Legal Responsibilities	12	Passing Other Vehicles	27
Licensing Requirements	12	Tailgaters	28
Insurance and Registration	12	Night Riding	29
Know Your Scooter	14	Handling Special Situations	30
		Emergency Braking	30
		Braking While Leaned into a Curve	31

Coping With A Skid	31	Conclusion	45
Riding Across Poor Road Surfaces	32	Scooter Skill Practice Guide	47
Steel Bridge Gratings, Rain Grooves and Railroad Crossings	33		
Rain	35		
Wind	35		
Animals	36		
Equipment Failures	37		
Blowouts	37		
Stuck Throttle	37		
Group Riding and Passengers	38		
Riding in a Group	38		
Carrying a Passenger	40		
Loading the Scooter	42		
Drinking, Drugs and Riding	44		

You and Your Scooter

A few tips for keeping your relationship a happy one

Congratulations!

You have entered the wonderful world of two-wheel transportation. You are going to have a marvelous time.

You also have some new responsibilities, which is what this little booklet is all about. This booklet provides only basic information. Keep in mind there is a range of differences between makes and models of scooters. More details about your specific model will be found in its owner's manual. You should refer to it often.

The way to ensure trouble-free riding – whether novice or experienced – is to learn

to operate your scooter more skillfully and safely. Your enjoyment and your safety depend on mastering not only the skill of riding a scooter, but also on the mental strategies related to sharing the road.

Read these pages carefully. Thirty minutes spent reading this information may be one of the most valuable efforts you will make for your own safety and enjoyment.



• You and Your Scooter Riding Tips •

The Scooterist

Riding a scooter properly is a skill you can learn. It takes thoughtful practice to ride one well. Unfortunately, many riders never learn the skills critical to riding safely and enjoying the experience to the fullest.

The best thing you can do is to attend the MSF Scooter Basic *RiderCourse*SM. Like the standard MSF Basic *RiderCourse* (BRC), completion of the SBRC may waive your requirement to take the riding and/or written test at your local department of motor vehicles office. You may also take the half-day Introduction to Scooters *RiderCourse* (*Scooter-School*), which is a brief familiarity course that provides the fundamentals of scooter riding but does not qualify as a DMV waiver course. In some states you may be able to enroll

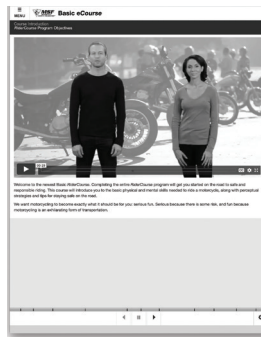
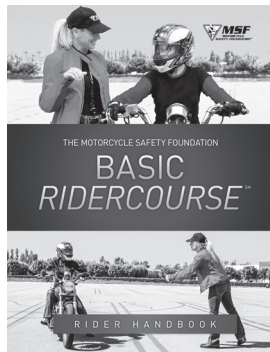
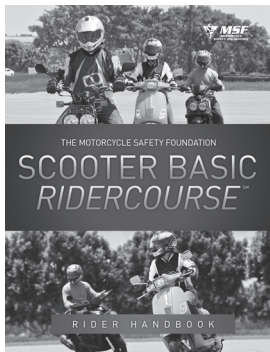
in the standard BRC. Although the BRC is designed for motorcycles, much of the safety knowledge and skill development exercises apply to scooter operation. The BRC is a more extensive course, since it includes instruction on shifting and clutch operation. In addition, at many locations you may ride your own scooter in the BRC, or in some cases the training site provides a scooter. You can also take the fun, interactive MSF Basic *eCourse* online. For information and course locations, call 800.446.9227 or visit msf-usa.org.

Scooterists who have been riding for some time can benefit from formal instruction by honing their skills and correcting bad habits while under the watchful, trained eye of an MSF-certified RiderCoach.



The course covers topics such as:

- Proper use of controls
- Basic riding skills
- Riding in traffic
- Emergency maneuvering
- Safety strategies



• You and Your Scooter Riding Tips •

What to Wear When You Ride

Proper gear is essential to safe riding. Wearing the proper clothing makes riding more enjoyable and more comfortable, too. Riding gear may also mean the difference between a bruise and a more serious injury if you crash.

HELMET

Around the block or around the world, it makes sense to leave home with a helmet securely fastened on your head, since it's one of **the best items of protective gear you can use.**

Helmets come in all sizes, from extra small (XS) to extra, extra large (XXL). 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. Always fasten the helmet's chinstrap. If the helmet is not secured, it is doing about as much good as if it were on the shelf at home because it can come off in a fall.

A good helmet will have an authentic Department of Transportation (DOT) sticker. This means the helmet was designed to meet DOT standards. Don't buy a helmet without one; the helmet may not provide the protection you need. Helmets vary greatly in price and style. Buy one that suits you and wear it. Fasten it every time you ride.

A good helmet makes scooter riding a lot more pleasurable. It reduces wind noise, minimizes windborne debris in your face/eyes, and helps prevent temperature extremes from

becoming uncomfortable. Good helmets are made of modern lightweight materials with many designs and colors to choose from.

EYE PROTECTION

Riding with bare eyes is a gamble. Your eyes are precious, and it does not take much to injure them. An object hitting the eye at only four miles per hour may cause permanent damage.

Proper eye protection means a visor on your helmet, a pair of goggles, or shatterproof glasses. Settling for less just isn't worth the risk. It's also a matter of comfort, since wind quickly dries out the eyes.

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 or in low-light conditions.



JACKET

Jackets designed specifically for riding are made in many sturdy materials, such as denim, nylon in its various guises, and leather. Cowhide and other leathers offer good protection when it comes to abrasion. You can buy leather jackets with zippered vents, which are comfortable to wear even in hot weather because as they allow a breeze to flow through.

Synthetic material jackets (such as Cordura® or ballistic nylon) with integral body armor work well too.

PANTS

Pants used for riding should be made of thick material, such as leather or a tough synthetic material, to resist abrasion and provide protection from the elements. There are several brands of riding pants on the market, and a number of companies sell riding pants and jacket combinations that zip together.

GLOVES

Always wear gloves, even on a hot day. It will make it easier to operate the controls, and you never know when you might lose balance and use your hands to brace for a fall. It also has to do with comfort; the car or truck in front of you may throw stones that could hit your fingers.

BOOTS

Use over-the-ankle boots, preferably made of strong leather since your ankles are very vulnerable. Boots also protect your feet and lower legs from abrasion.

Boots with slippery soles could cause embarrassment when you put your foot down on a greasy surface, such as at a gas station or a tollbooth. Rubber soles with a good tread design offer better gripping potential.

RAIN GEAR

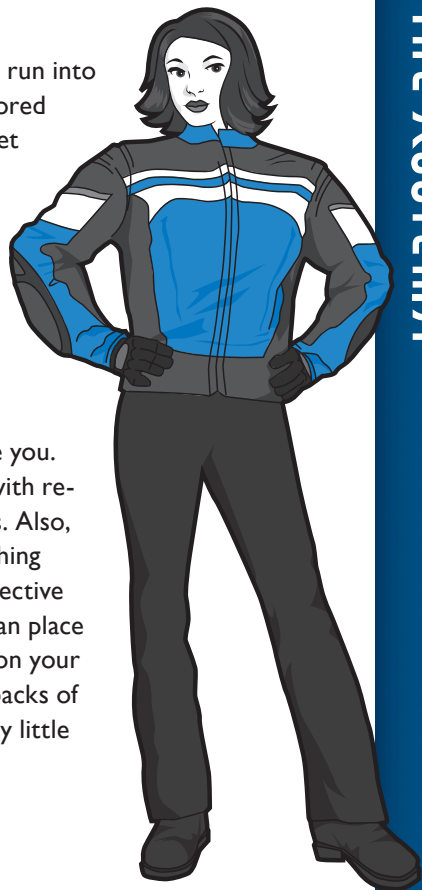
Inevitably, one day you will be caught out in the rain. Why not acquire a good rain suit designed for riding? Make sure it fits properly, and don't forget rain-covers for your boots and gloves, since you'll be a lot more comfortable riding in the rain if you're dry.

HIGH-VISIBILITY GEAR

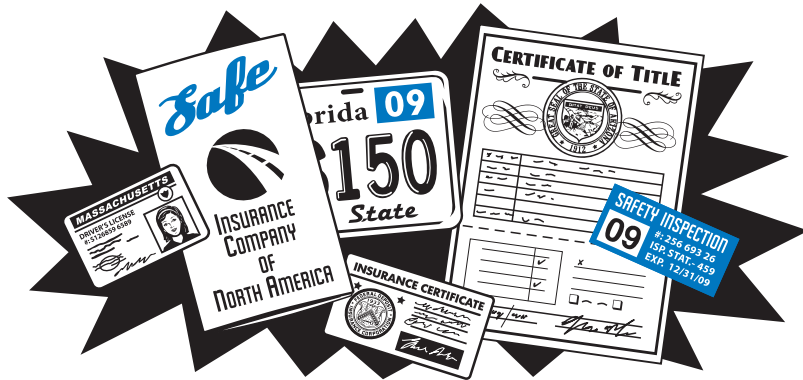
The easier it is for people to see you, the less

likely they are to run into you. Brightly colored clothing or helmet is preferable to drab, dark clothing.

You can buy vests that are designed to make it easier for others to see you. Look for those with reflective materials. Also, you can buy clothing with integral reflective strips, and you can place reflective strips on your helmet and the backs of your boots. Every little bit helps.



Your Legal Responsibilities



Don't forget, operating a vehicle on public streets and highways is a privilege, not a right. 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 are de-

signed for safe and predictable behavior by the motoring public.

Just think of the chaos if we didn't have these laws. Respect them. You put yourself, your wallet, and others at risk if you choose to violate the law.

LICENSING REQUIREMENTS

These vary from state to state. Some states require a specific scooter or motorcycle license to operate on the street. Be sure to get one if required. Drop by your local motor vehicle department and ask for licensing information, or visit them online. The MSF also maintains a summary of state licensing information in its online library at msf-usa.org.

INSURANCE AND REGISTRATION

Obtaining insurance is important. Most states require liability insurance (check your state's laws). Shop around. Some companies provide a discount if you've taken a safety or training course.

You can also get other coverage for you and your scooter, such as comprehensive, collision, medical payments, uninsured driver, etc. Ask your insurance agent what each type of coverage can do for you, and how much it will

cost. It could end up being a very wise investment.

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

Registration for your scooter is easy. Follow proper procedures and pay appropriate fees. Get a license plate to attach onto the back of the scooter.

Know Your Scooter

To be a safe rider, get to know your scooter. It's very different from a car since it makes more demands on its operator. The scooter accelerates, turns and stops smoothly according to your level of skill and knowledge. Therefore, the more you practice, the more skilled you will become.

Check your owner's manual; not all scooters are exactly alike. There are large scooters (engine displacements of 650cc and over), small scooters (50cc) and everything in between. The scooter owner's manual gives you many specifics you will find helpful in understanding and maintaining the scooter you've chosen.

Certain small displacement models may not be allowed on high-speed, limited-access highways.

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

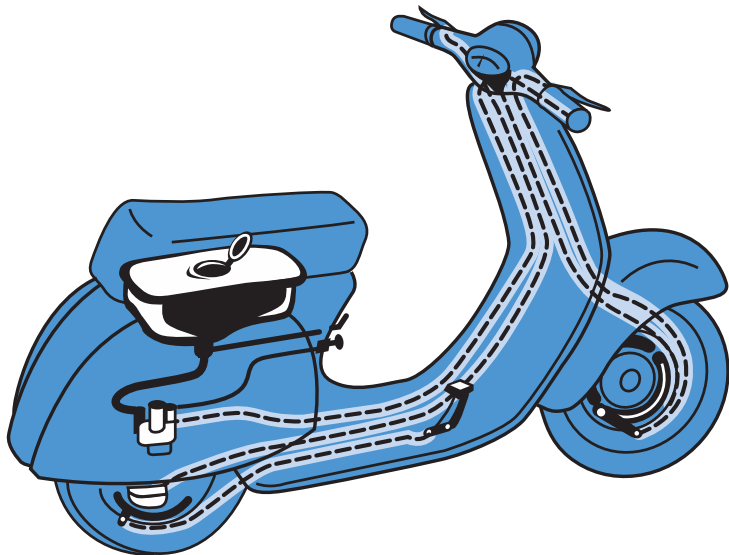
THE CONTROLS

There are some basic controls that are standard on scooters. Refer to your owner's manual for variations from what is provided in this booklet.

To become familiar with the controls and how to use them, put the scooter on the center stand and sit on it. Work the levers and pedals (if equipped). 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 finding and using the turn signal switch. Learn the location of 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.



Become familiar with the routing of your scooter's various cables and hoses.

Become familiar with the reserve fuel valve, if there is one on your machine. When you are riding down the street and your engine hesitates (indicating it is running out of fuel), you want to be able to quickly turn to the reserve fuel supply. It is not fun or safe to be fumbling around when you are moving.

BRAKING IN A STRAIGHT LINE

Don't ever forget: The front brake on your scooter can supply 70 percent or more of its stopping power. The single most important skill you can learn is to brake effectively by using both brakes every time you want to slow down.

Always apply both the front and the rear brakes at the same time. Apply them confidently, but not so hard that you skid either wheel. A locked wheel causes the scooter to skid and may extend the stopping distance. Make sure the handlebars are straight, too. The time to take your left foot off the floorboard and put it on the ground is just as the scooter comes to a complete stop. Refine your braking technique every chance you get. You can always become more skilled at it.

TURNING

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

To get the scooter to lean, press forward on the handgrip in the direction of the turn and maintain slight pressure to take you smoothly through the turn. In other words: press the right handgrip to go right; press the left handgrip to go left. Maintain a steady throttle. Practice how a scooter moves by pressing forward on one side of the handlebar while traveling in a straight line. The scooter will move and lean in the direction of the handlebar side you pressed.

Use these techniques to achieve smooth cornering:

- Slow, if needed before you enter a turn; keep your head and eyes up, looking through the turn. Check well ahead for traffic and surface conditions.
- If you do have to slow more while in the turn (probably because you did not slow enough before the turn!), do it gently with no sudden motions or hard braking. Think *smooth*.
- Keep your feet on the floorboards and your knees in.
- Lean with the scooter; don't try to sit perpendicular to the road while the scooter is leaning over unless you are riding at a very low speed (below 5 mph).
- Try to maintain an even throttle through the turn, or even accelerate a little. Some scooters have a bit of throttle lag time (from when the throttle is turned to when power is felt).

CHECKING THE SCOOTER BEFORE THE RIDE

Who knows when Murphy's Law may strike (Whatever can go wrong, will!), like that nail your tire might have picked up just before you turned into your driveway the other evening. It's not fun to have things go wrong on a scooter, but if you spend a minute before you take off on a ride, you can increase the chances that nothing will go wrong.

Any information you'll need, such as correct tire pressures or throttle adjustment, you'll find in the 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 scooter.

#1 Check the tires. They are one of the most important parts on your scooter. 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 the lights, including brake light, headlights, and turn signals, to make sure everything works. Also check your horn and mirror adjustments.



#4 Check the oil and fuel. If the scooter engine is liquid-cooled, check the coolant levels.

#5 Check the chassis (frame) and suspension. Look for damage or cracks in the floorboards and make sure that the scooter will move freely up and down when you put weight on the handlebars or seat.

#6 Make sure the center stand works properly. If a retraction spring is weak, broken or missing, replace it.

#7 As you move out, check your brakes. Make sure they are working properly.

Now, go enjoy the ride!

MAINTENANCE

There's not much day-to-day maintenance for most modern scooters, but do what you can

do, including your pre-ride checks.

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

Keeping your scooter clean is a good idea. Dirt can often cover up potential problems.

Check your battery every month and make sure it has a strong charge. Make sure the fluid level is where it should be. If it is low, top it off with distilled water.

Always take a tool kit along when you go for a ride. You never can tell when it will come in handy. Use the tools to check the scooter occasionally and make sure no screws or bolts are loose.

You should always have the owner's manual with the scooter. It tells you where the fuse box is in the unlikely event a fuse fails. It may also tell you how to remove a wheel should you have a flat tire.

Flat tires are pretty rare occurrences on scooters, but they can happen. For this, you can either get on the phone to the dealer, or temporarily fix it yourself with a tire repair kit. You may want to have it replaced as soon as you can (check with your dealer). We recommend that you carefully read the directions at home, rather than have your first shot at fixing a flat happen alongside a deserted road in the middle of the night when you don't have enough light to read the directions.

TROUBLESHOOTING

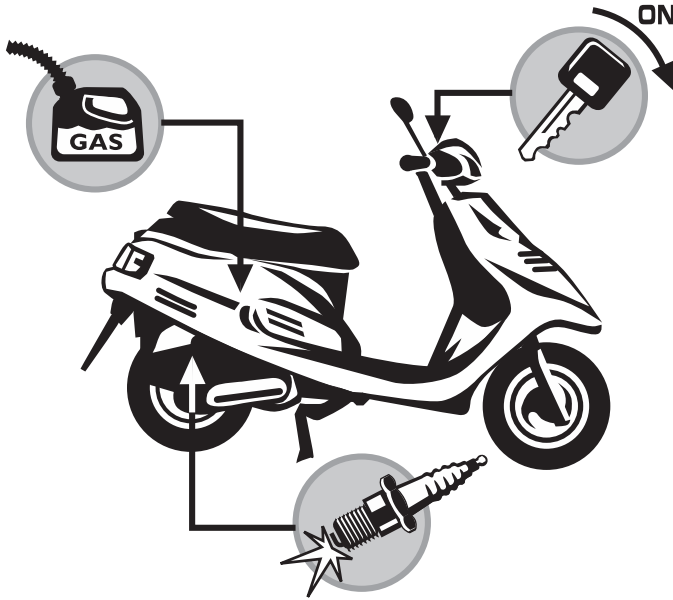
Little things may happen to the scooter that may be cause for concern. Don't panic until you check out the obvious.

#1 If the engine doesn't start:

- Is the ignition on?
- Is there fuel?
- Is the battery too weak?
- Is there a loose battery connection?
- Is the engine cutoff switch in the OFF position?
- If equipped, is the choke in the appropriate position?

#2 If the engine stops when you don't want it to:

- Did you accidentally move the engine cutoff switch?
- Did you run out of fuel?
- Did a fuse fail?



#3 If the scooter feels unstable or wobbles as you go down the road, especially in a curve, pull over and stop as soon as it is safe to check your tires. You may have a flat

tire or low tire pressure. Check your suspension. You may have it adjusted incorrectly. The owner's manual is the best reference for proper settings and adjustments.

#4 If you detect any problems with the scooter – doesn't feel right, doesn't handle properly, doesn't sound right – that you can't figure out yourself, take it to your dealer. Think about the problem so you can describe it to the service manager. Remember, an ounce of prevention is worth a pound of cure. Pushing a scooter is not fun!

Highway, Byway, Street and Alley

This is what it all comes down to: you, your scooter, the road and the traffic. There are millions of miles of roads in this country, from one-lane dirt roads to multi-lane highways.

When you ride, the surface conditions, traffic, and the weather constantly change. You have to be aware of a lot of things. Daydreaming when you're riding a scooter isn't a good idea. Things happen quickly 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.

- S • Search** around you for potential hazards.
- E • Evaluate** any possible hazards, such as turning cars, railroad tracks, etc.
- E • Execute** the proper action to avoid the hazard.

The MSF SEE strategy is designed for safer and more responsible riding. Use it effectively and you'll cover many safe, happy miles on your scooter.

INCREASE YOUR VISIBILITY TO OTHERS

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

It's a sad truth. You're not as large as a car. Too often motorists don't see you because they aren't looking for you, so you have to attract their attention. Assume you are invisible (then you will tend to ride in a hyper-aware mindset and notice more details in your surroundings) and leave plenty of time



and space to respond to problems, so you don't have to react to an emergency.

Many scooter headlamps come on whenever the engine is running or the key is turned on.

We've said it before, we'll say it again: Wear bright clothing and utilize reflective material whenever appropriate. The largest surface that a following driver usually sees is the clothing on your upper back. Make it stand out.

Always signal your intentions. Change lanes or

make a turn using your turn signals in advance. You want to be sure that the people around you know what you are about to do.

And it sometimes helps to add hand signals to your turn signals when you really want others to know you are present and asking for their cooperation.

Remember to cancel your signals when you've completed your maneuver; otherwise, drivers will get misleading information from you.

Don't be shy about using your horn. If pedestrians or drivers are dozing or about to pull a non-thinking maneuver, give them a BEEP. You want to make them aware of what you are doing and announce your presence, but don't count on it helping because they may not hear it. Always leave yourself adequate time and space for a safety margin.

Position your scooter in traffic where it can be seen. Don't put yourself behind a large truck or ride in the blind spot of a vehicle near you. Make yourself visible to others.

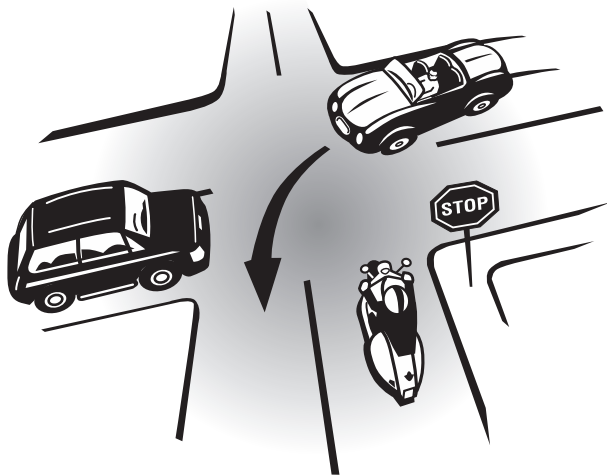
HELPING YOU TO SEE OTHERS

The other half of the visibility battle is being alert and seeing everything around you. Use your eyes effectively as you look for factors that could affect you. Don't go rubbernecking at a crash scene. If your eyes are locked on one thing, you may be missing an important factor or situation.

Look ahead and to the sides. Look in your mirrors frequently and over your shoulders before changing lanes. Keep looking! Keep SEEing! Anticipate the oncoming driver may turn left, the reckless fool coming up behind you may not stop, the car poking its nose out of the driveway won't see you. Never let your



Look ahead. Look to the side. Look in your mirrors. Look over your shoulders. Keep SEEing!



At an intersection, always check for traffic to the left and right.

eyes fix on an object too long. Keep looking around to pick up things that could affect your speed or position.

Always keep at least a two-second gap between you and the vehicle you are following. For example, when it goes by a telephone

pole, count “one-thousand-one, one-thousand-two”; and then you should pass that pole. Passing it sooner means you’re too close. Leave yourself more distance as an extra margin of safety.

INTERSECTIONS

It probably surprises no one to know that the majority of crashes between a scooter and a car happen at intersections – when a car turns left in front of the scooter.

Any intersection is potentially hazardous, whether it has stoplights, stop signs, or is unmarked. The same is true for alleys and driveways.

Always check for traffic to the left and right. Look for others who might ignore stop signs or traffic lights. Check for traffic behind you

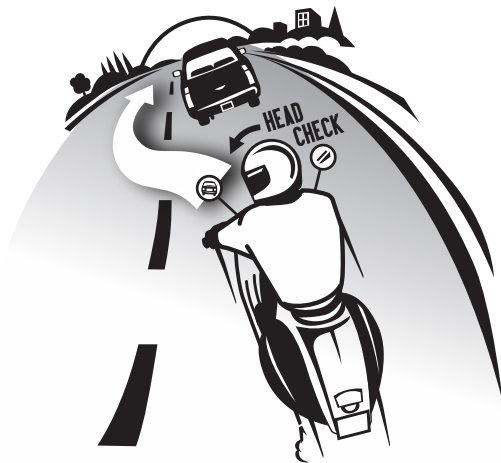
to make sure no one is approaching too fast. Flashing your brake light may help them see you.

PASSING OTHER VEHICLES

The procedure for passing another vehicle is the same whether you are riding a scooter or driving a car. Make sure you have enough power to pass in the space that's available. Remember, some scooters don't have enough power to accelerate quickly at street speeds. Know what your scooter can and can't do!

If you decide it's safe to pass, you should be two (or more) seconds behind the vehicle you want to pass, and have positioned yourself in the left portion of your lane.

This position makes it easier to check oncoming traffic and the road to make sure you have enough distance to pass safely. Don't even



When passing, always make a head check.

think about overtaking if you are approaching a corner, driveway or intersection.

If you have room ahead to make the pass, look in your mirrors, turn the signal on, and check over your shoulder. That head check is essential because someone might have just moved 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 closely to the vehicle you are passing; you should be more or less in the center of the lane you are passing in. Turn off the signal. Get by this vehicle as quickly as possible without exceeding the speed limit.

Before returning to your original lane, signal your intention and use a head check to make sure that there is enough room between you and the vehicle you just passed.

Return to your lane, cancel your signal, and proceed merrily along – with care, of course. Continue to SEE.

TAILGATERS

Tailgaters are a special problem to you. They are simply following too closely to stop safely

if you have to stop quickly.

You can flash your brake light to warn the tailgater that you are slowing. Slowing will increase your distance from the vehicle in front of you, giving you (and the tailgater!) more time/distance to react to some emergency ahead.

You should also stay close to the center of the lane. (If you move to the far right or far left of your lane, you might give the tailgater the idea that it would be OK to pass you in your lane!)

If all else fails, you should consider giving a turn signal and simply pull off the road and let the tailgater go by. Remember, if the tailgater makes a mistake, you might be the one who has to pay the price!

NIGHT RIDING

You may have to ride at night. After all, it is dark around 50 percent of the time!

Dusk may be 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 curvy or hilly road.

Use your own headlight and those of other vehicles 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 truck.

The distance between you and the vehicle in front becomes even more important at night.

Give yourself room to SEE.

Wear a clear face shield 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 your back, and no emergencies would arise. Since it is an imperfect world, 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 scooter halted quickly:

- Apply both brakes for their maximum effectiveness, just short of locking them up and skidding. Practice in an open place with a good surface, such as a clean parking lot.
- Keep the scooter upright and traveling in a straight line, and look where you want to go.
- You don't want to lock the front brake. If the front wheel begins to skid, release the front

brake lever for a split second, then immediately reapply it with slightly less pressure.

- If your rear wheel locks up, keep your straight-line balance. You will skid in a straight line, which is better than



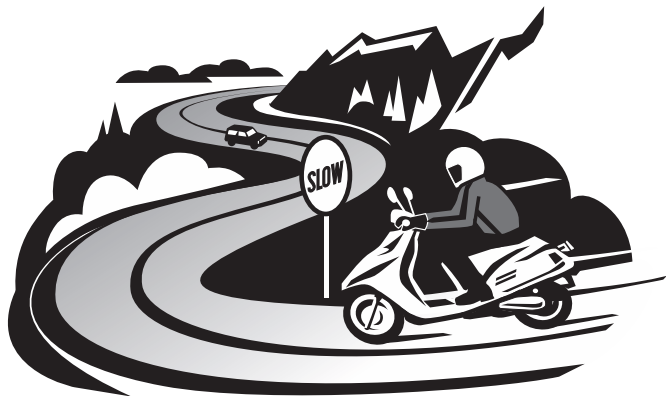
skidding when leaned over. You have a more important priority, and that is to get stopped! Read on and we will talk more about “skids.”

BRAKING WHILE LEANED INTO A CURVE

Using SEE will help you 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 scooter is straight. This is because there is less braking capability when your scooter is leaned over.

For maximum braking efficiency in an emergency (and when traffic and roadway con-



ditions permit), straighten the scooter by straightening the handlebars, then brake hard. You will want to practice both of these techniques in a parking lot, before you have to do it on the street.

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 can be a frightening experience on two wheels, but a skilled scooterist can handle a skid.

At a highway speed, sand-in-the-corner skid, steer slightly in the direction of the skid (if you're leaned to the left and the rear tire is skidding to the right, press forward a bit on the right handgrip). Chances are the scooter will straighten up, and you'll continue on your way.

Should you hit a slippery spot while you're braking for a stop sign, release the brakes for an instant, and reapply them a little more gently. You want those tires to have traction.

At higher speeds when traction is good and the rear wheel skids because of too much brake pressure, do not release the rear brake

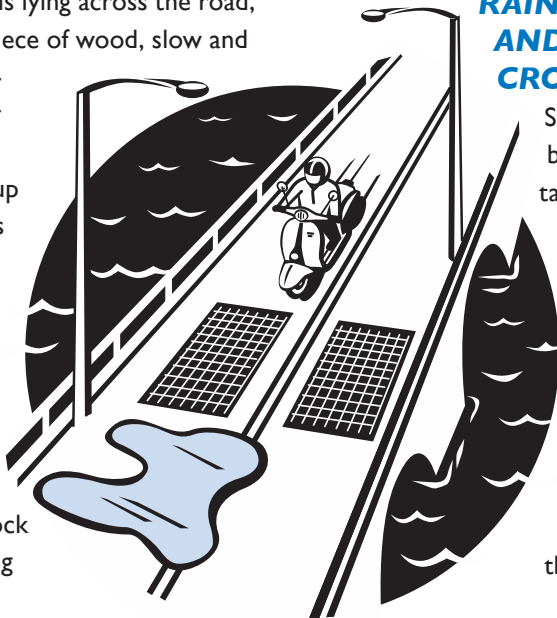
unless the scooter is absolutely straight. If your scooter's back end is skidding sideways because the tire is on a slick spot and simply spinning, ease off on the throttle. A spinning wheel provides no more control than a locked wheel.

RIDING ACROSS POOR ROAD SURFACES

Here are a few simple rules to follow when you have to ride over sand, mud, water or any loose surface or obstruction in the road. These are the kinds of maneuvers that require you to have good basic skills:

- If there is traffic in the area, make sure that others are aware you are slowing.
- Try to cross the bad surface in a straight line, or at least do not abruptly change direction or speed.
- Maintain the balance of the scooter.

- If you are moving along and have to go over an obstruction that is lying across the road, like a 2 in. by 4 in. piece of wood, slow and rise up on the floorboard and shift your weight back 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 the rear wheel get over. Use your legs as shock absorbers by bending your knees as you cross over.
- Do not accelerate until your scooter is completely over the obstacle.



STEEL BRIDGE GRATINGS, RAIN GROOVES AND RAILROAD CROSSINGS

Steel-mesh bridges can be unnerving. Maintain an even throttle and keep the scooter straight. If there is a vibration in the handlebars, do not fight it or grip the handgrips too tightly. The vibration is natural feedback from your tires going over the grating.

You may come upon rain grooves in the highways. This is when the road



A wise scooterist will stop for a break when it starts to rain; who knows, it could all be over in 15 minutes.

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 scooter to these grooves often has to do with the tread pattern on the tires. Sometimes it feels as though the scooter 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.

For railroad crossings, it is usually safe to ride straight within your lane to cross the tracks. For track and road seams that run parallel to your path, move far enough away from the tracks to cross at an angle of at least 45 degrees.

RAIN

Haul out the rain gear that you've stowed in a handy spot. It is also a good idea to stop and put on your rain gear before it actually starts to rain.

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 scooterist will stop riding when it starts to rain. Who knows, it could all be over in 15 minutes, and you won't even have to put on your rain gear.

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

WIND

Strong winds can create problems. A constant 25 mph wind from the side can make for a challenging ride. Gusty wind is the worst. You might have to lean a bit into the wind to maintain your position. Keep the scooter toward the side of the lane where the wind is coming from. This is in case a big gust moves you over. Expect it and be ready to react.

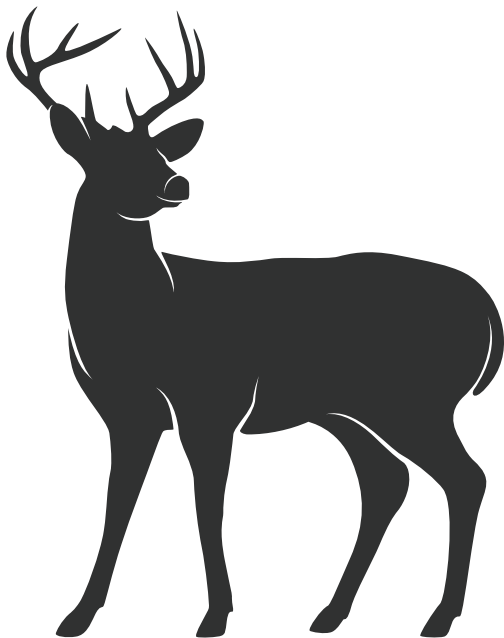
ANIMALS

The biggest problem is with domestic animals, i.e., dogs. Most seem to have an urge to chase a moving vehicle. Those that don't chase may wander into your path. Don't let one distract you and cause a spill.

Here are three rules:

- Slow down well before you reach the animal.
- Do not – repeat – do not kick at the animal.
- If the animal might intercept you, slow down and then speed up before the interception point. It will throw the animal's 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 scooter is not the preferred way to put venison on the table.



Equipment Failures

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

BLOWOUTS

Use tires of good quality, keep them at the proper pressure and change them when the tread is worn. Should a blowout occur on 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 brake, apply gradual pressure to the brake on the good tire.

#2 Ease off on the throttle and slow down gradually; rapid deceleration could throw the scooter out of control. Signal and ease over to a safe spot.

#3 Hold those handgrips 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 pointing ahead until you stop.

STUCK THROTTLE

Chances are you will never have a throttle stick, but if you do, you need to know how to respond to it by using the cutoff switch. Always using the cutoff switch to stop the engine (before you turn off the ignition key) helps you develop the habit of using the cutoff switch for when you really need it.

If you use the cutoff switch for an emergency, be sure to have a safe place to coast to a stop. Use SEE to have plenty of time and space.

Group Riding and Passengers

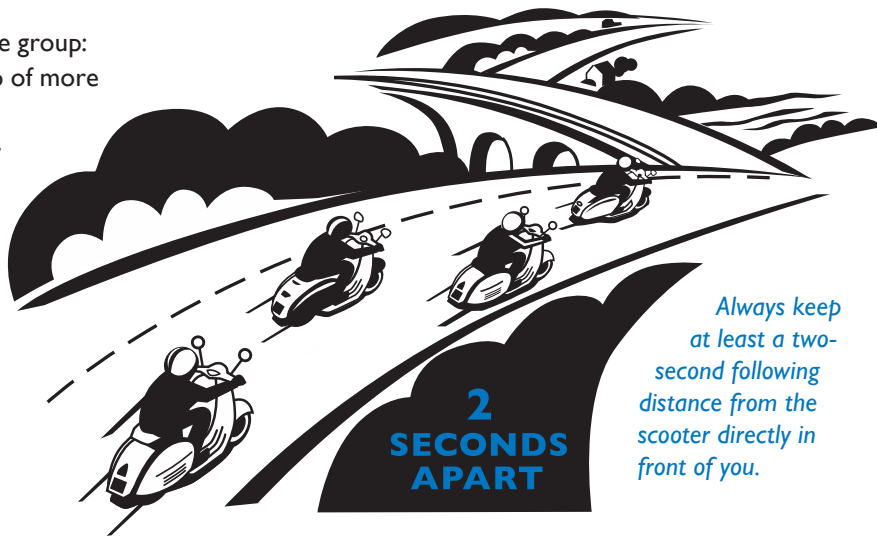
RIDING IN A GROUP

It is useful before taking off on a group ride to get two or three hand signals agreed upon among the participants: “Let’s stop”; “Need gas”; “I’m hungry.”

A few rules for the group:

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

- Ride in a staggered formation, with first scooter 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 scooter directly in front of you.
- At a stoplight or stop sign, wait in side-by-side pairs.
- Pass other vehicles individually, when safe – not in pairs or groups.



At a stoplight or stop sign, wait in pairs.

CARRYING A PASSENGER

Good company is always nice, but putting extra weight on the scooter will affect its handling. Make sure your scooter is designed to carry a passenger (the seat is large enough for two people and there are footrests for the passenger). Adjust the suspension and tire pressure to compensate for the weight of the passenger. (Check the owner's manual.)

Also realize that your braking capabilities have changed. The more weight you have on the scooter, the more time and distance it will likely take to stop.

Passengers should be instructed to mount from the left side, and to warn you before they climb on. This goes a long way to preventing a muddled heap lying on the ground before you even get started. Passengers need the same protective gear that you do – helmet and proper clothing. Ten-foot

scarves flapping in the wind may look dashing, but not on a scooter. And make sure that long shoelaces are securely tied so dangling ends won't get caught in the moving parts of the scooter.

Never carry anyone sidesaddle. Passengers should always be properly seated with their feet securely planted on the footrests. Tell passengers not to put a foot down when you come to a stop, since this can make you lose your balance.

Tell passengers not to come in contact with hot parts, such as the muffler. Also, rubber soles that contact hot parts can leave a mess.

Instruct passengers to hold onto your waist or hips. Ask them to lean forward slightly when you leave from a stop or accelerate along the roadway.



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 scooter; that will do funny things to the steering. However, when you lean going around a corner, passengers should 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 their weight where you want it.

Practice with a passenger in a safe area, such as a parking lot, before venturing out onto the roadway.

Loading the Scooter

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

All loads should be secured to the scooter. Do not balance a bag of groceries on the floorboard for a short ride home. Strap it on the back seat with bungee cords or an elastic cargo net.

There are appropriate places to carry loads on a scooter, but they do not include the front of the scooter. If your scooter has saddlebags or storage underneath the seat, you're set. If your scooter has none of this, you can always buy a luggage rack, as they can be quite useful.

When you load saddlebags, keep equal weight on both sides. This is even more important when you are using soft throw-over 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. Avoid carrying heavy items behind the rear axle. It can turn a well-handling scooter into a poor-handling contraption.

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 scooter! The best place to look for that number is in the owner's manual. It includes the weight of the scooter, gasoline, oil and coolant, the rider(s), and the luggage.



Drinking, Drugs and Riding

IN A WORD: **DON'T**

Mixing alcohol or other drugs with riding is like putting nitro with glycerin: there's a dangerous reaction.

Alcohol is a depressant. The first thing to go is your good judgment – and bad judgment gets you into trouble. Drinking riders tend to run off the road more often, have a high frequency of rider error, use excessive speed for conditions around them, and tend to miss important clues in traffic that can spell 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 remove that alcohol – not showers, coffee, or other so-called remedies.

If you are going to drink, don't even think about riding. Period.

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 side-effects that increase the risks of riding.

Conclusion

Although there is a conclusion to this booklet, there is no conclusion to being a better scooterist. Riding a scooter is a constant learning experience. Get trained and licensed; Be a lifelong learner; Wear proper protective gear; Ride Straight; Ride within your personal limits.

You'll never know all there is to know about riding. But a year from now, you'll know a lot more than you do now. Keep renewing your skills and attitude about safe riding practices.

Have a good time, don't do anything foolish, and we hope to see you often in training classes as well as on the road. It's going to be a great ride!



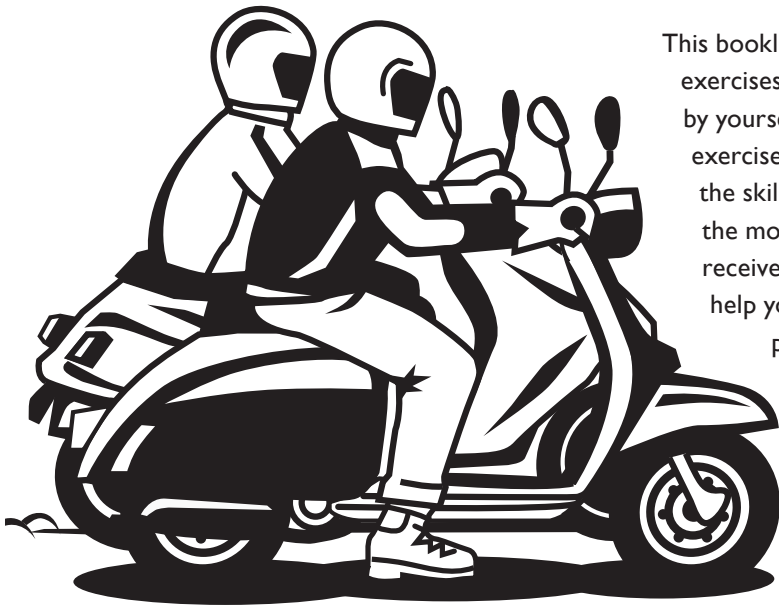


SCOOTER SKILL PRACTICE



GUIDE

Introduction



This booklet describes several exercises that you may practice by yourself or with a friend. The exercises can help you develop the skills you need to pass the motorcycle skill test and receive your license, and also help you keep skills fresh.* 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**

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

skills such as using the throttle correctly, 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 training course.

REMEMBER:

- First 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 with complete control. Do not practice for more than one or two hours at a time. When you get tired, you cannot practice effectively.
- You may want to spend time on a bicycle if you haven't ridden a two-wheeler for a while.

Instruction Is Available!

Call the national toll-free number, 800.446.9227, to get the phone number of a training site near you.

CHOOSING A PRACTICE AREA

A well-marked, vacant parking lot is a good practice area. Be aware, however, of surface debris or 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. Be sure you obtain permission, if required.

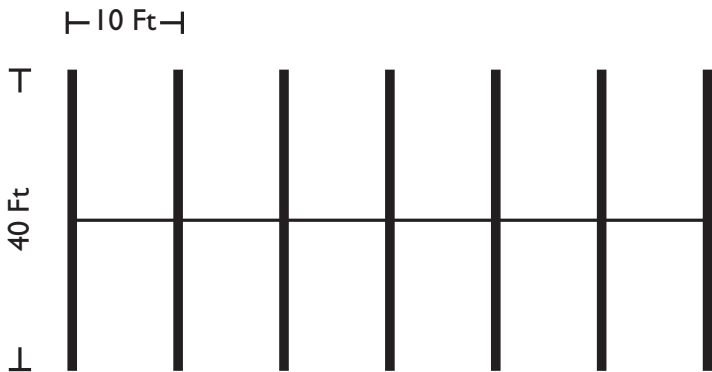
Traffic is your greatest concern. Make sure you check to the front, sides and rear before riding an exercise. Also, make sure you watch out for children and animals and be considerate of others in the area. Notice surface conditions like gravel, water drains and broken glass.

SAFETY PRECAUTIONS

If you already have basic skills, the practice exercises are not likely to be a problem.

However, a few safety precautions should be followed:

- Wear proper protective clothing that includes: helmet, eye protection, gloves, over-the-ankle boots, long pants, and long-sleeved shirt or jacket.
- Inspect the scooter for defects before you start. If you are not familiar with the inspection procedures for your scooter, 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 get the most from the practice.

you're done. Also, bring some chalk or duct tape to put marks or lines on the pavement.

WHAT TO BRING

Bring six small objects that you can use as markers. Milk cartons or plastic bottles with a little water or sand in the bottoms work well. Do not leave them at the practice area when

Exercise 1 - Normal Stop in a Straight Line

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

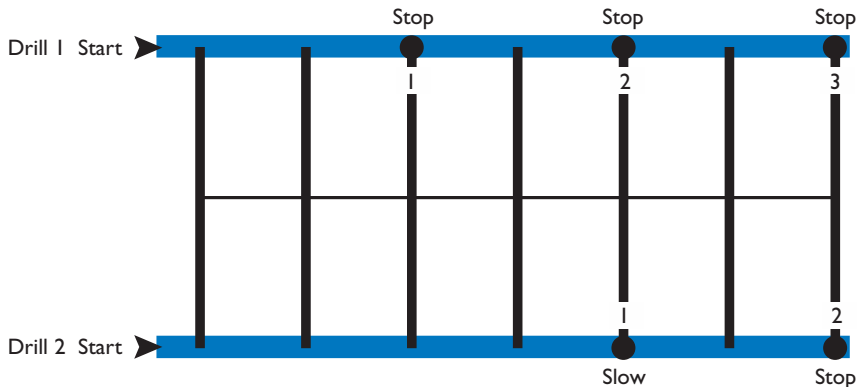
DIRECTIONS

Drill 1 – Begin by riding to marker 1 and come to a controlled stop. Ride to marker 2 and stop. Ride to marker 3 and stop. Repeat controlled and smooth stops.

Drill 2 – Start riding towards marker 1 between **10-15 mph**. Begin to slow down at the first marker. Try to come to a smooth non-skidding stop with your front tire next to the marker 2.

COACHING TIPS

- Keep your head and eyes up.
- Keep the scooter on a straight path.
- Be sure to roll off the throttle before using the front brake lever.
- Gradually apply both brakes to stop.
- When stopped, the left foot should touch the ground first.



COMMON PROBLEMS

1. Overshooting marker.
2. Unstable during stop.
3. Making a wobbly stop.

BASIC CORRECTIONS

1. Begin slowing and braking sooner, or try slightly more pressure on the brakes.
2. Keep head and eyes up during stop, and stop more abruptly.
3. Use less brake pressure or delay brake application.

Exercise 2 - Quick Stop in a Straight Line

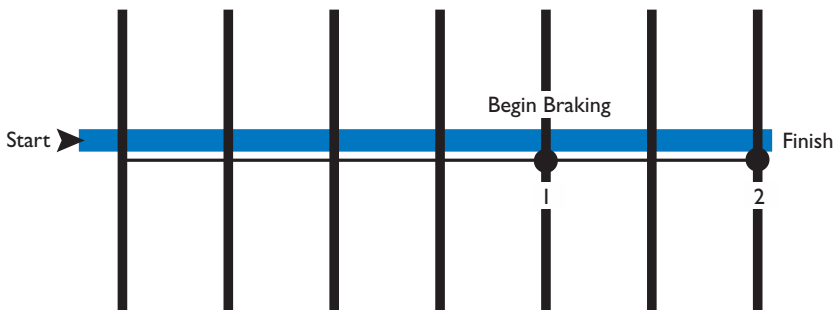
Practicing this exercise will help you stop quickly when something suddenly appears in your path.

DIRECTIONS

Approach marker 1. As your front tire passes marker 1, begin braking. Try to stop before marker 2. Practice this at **10 mph** and then at **15 mph**. *Do not increase speed until you feel confident at slower speeds.*

COACHING TIPS

- Keep feet forward on floorboard when braking hard.
- When stopped, the left foot should touch the ground first.
- Keep head and eyes up.
- When stopping, apply both brakes.
- Keep handlebars straight. Progressively squeeze the brake levers – without grabbing them.
- Try not to release brakes until completely stopped.



COMMON PROBLEMS

1. Overshooting the final marker.
2. Scooter slides sideways or leans to one side.

BASIC CORRECTIONS

1. Apply more pressure to brakes; however, avoid locking front or rear brake by squeezing, not grabbing, the brake levers. Keep speeds low and develop skill gradually. Increase speed after skill develops.
2. Close the throttle before braking. Squeeze the brake levers evenly with all four fingers. Avoid opening the throttle when applying pressure to the front brake lever.

Exercise 3 - Weaves

Practicing these exercises will help you get accustomed to the handling characteristics of your scooter.

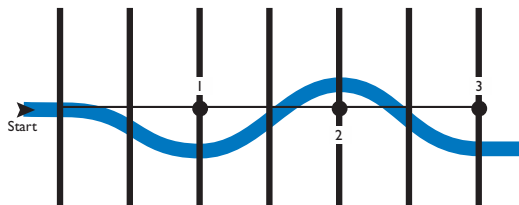
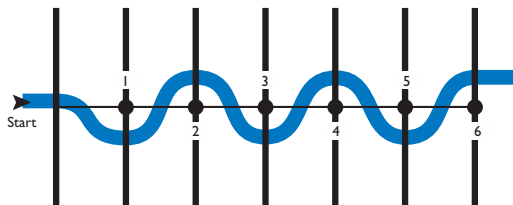
DIRECTIONS

Drill 1 – 20-foot Weave – Begin at one end of the parking lot using markers. Go to the right of the first marker, left of the second, right of the third, and so on.

Drill 2 – 10-foot Weave – Do the same as you did in the 20-foot weave.

COACHING TIPS

- Keep head and eyes up and knees in.
- Initiate lean by pressing on the handgrip in the direction you want to go. (Press right handgrip to lean and go right. Press left handgrip to lean and go left.) Keep a firm grip on the handgrips.
- Maintain a steady speed.
- Try not to brake while performing weave.
- Keep speed low until comfortable maneuvering your scooter.
- Be sure to have plenty of room after the last marker.

**Drill 1****Drill 2**

COMMON PROBLEMS

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

BASIC CORRECTIONS

1. Keep eyes up and looking forward.
2. Maintain a steady, stable speed with more pressure on the handlebars.
3. Try increasing speed slightly.

Exercise 4 – Limited-Space Turning

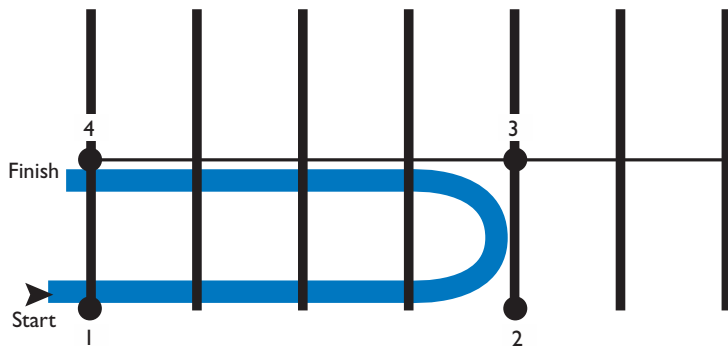
Practicing this exercise will help you in tight, limited-space areas.

DIRECTIONS

Ride into the box indicated by markers

1-4. Keep speed slow. Make a U-turn within the boundaries. Keep your eyes looking through your intended path. Turn the handlebars sufficiently to make the desired path.

Put a foot down, if needed, should you lose your balance. Repeat the exercise in the other direction.



COMMON PROBLEMS

1. Going outside of boundaries.
2. Putting foot down.

BASIC CORRECTIONS

1. Slow and turn the handlebars more.
2. Maintain momentum, keep eyes up, and look through turn.

Exercise 5 - Basic Turns

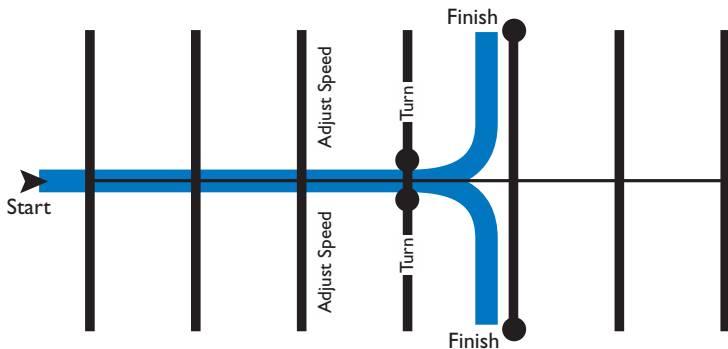
Practicing this exercise will help you negotiate turns.

DIRECTIONS

Ride toward first set of cones. Adjust speed before reaching cones to make a left turn. Make the 90-degree turn within the line connecting the second set of cones. Repeat making a right turn.

COACHING TIPS

- Keep straight-ahead speed around **10-15** mph.
- Slow down before the turn. Brake if necessary.
- Look through the turn. Press the handgrips and lean, and adjust as needed.
- Be smooth through the turn.



COMMON PROBLEMS

1. Swinging wide of the turn.
2. Cutting corner too close or turning too sharply.
3. Slowing too much in turn.

BASIC CORRECTIONS

1. Look further into turn. Slow and use more handlebar movement.
2. Keep your head and eyes up. Avoid looking down. Apply less pressure to the inside handgrip. Keep a steady throttle.
3. Delay slowing until closer to the turn and maintain momentum through turn.

Exercise 6 - Curves

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

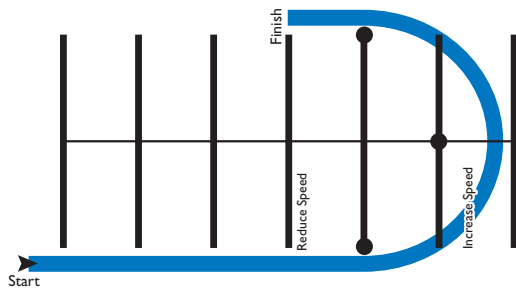
DIRECTIONS

Start by facing the first marker at a distance sufficient enough to increase speed to **10-15** mph. As you approach the marker, reduce speed using both brakes. As you start your turn toward the middle marker, look through the turn and gently roll on the throttle throughout the turn. Roll on the throttle past the last marker and stop smoothly in a straight line.

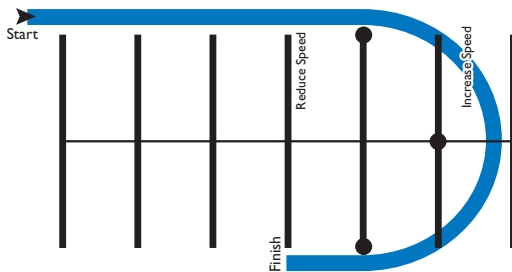
Practice cornering in both directions.

COACHING TIPS

- Stay on the outside of the markers.
- Slow down before the turn using both brakes. (Before the first marker)
- Look through the turn.
- Lean with the scooter.
- Gradually increase speed as appropriate.



Left Curve



Right Curve

COMMON PROBLEMS

1. Swinging wide.
2. Too much handgrip pressure.

BASIC CORRECTIONS

1. Slow down more before entering the curve, look through the curve, press more on the inside handgrip.
2. Keep head and eyes up. Do not look down. Look through the curve. Press less on inside handlebar.

Exercise 7 - Quick Stop in a Curve

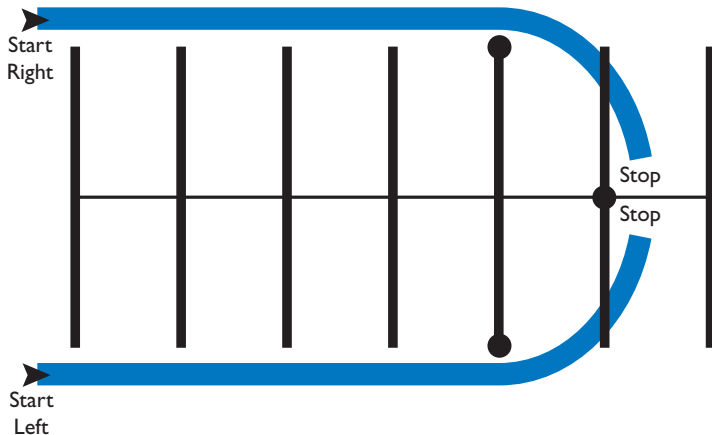
Practicing this exercise will help you stop quickly when something suddenly appears in your path in a curve.

DIRECTIONS

Start by facing the first marker at a distance sufficient enough to increase speed to 10-15 mph. As you reach the first marker, turn in the curved path indicated by the middle and outside markers. When your front tire passes the middle marker, first straighten the scooter, and then make a quick stop in a straight line. Practice this at **10 mph**, then **15 mph**. Do not exceed 15 mph, and develop skill and finesse gradually.

COACHING TIPS

- Keep head and eyes up; look into the curve.
- Straighten scooter, then apply both brakes, stopping as quickly as safely possible in a straight line.
- Keep feet forward on floorboard until almost stopped.
- When stopped, the left foot should touch the ground first.
- Do not grab the front brake lever or skid either tire.



COMMON PROBLEMS

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

BASIC CORRECTIONS

1. Apply additional pressure to the brake levers without locking the wheels (once scooter is straightened from the lean angle).
2. Straighten up the scooter first, then apply the brakes. Be sure the handlebars are square and the scooter upright. Keep eyes up. Don't grab the front brake lever.
3. Use less rear brake pressure and make sure the scooter is straight up as you apply the brakes.

Exercise 8 - Swerve

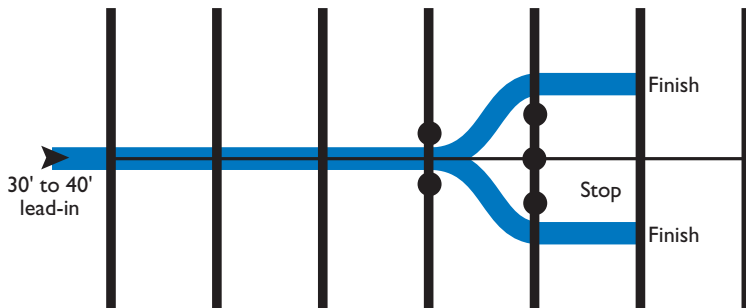
Practicing this exercise will help you swerve to avoid a potential hazard like a barrier or obstacle.

DIRECTIONS

Using about 30' to 40' of lead-in, approach the first pair of markers. As you reach the markers you should be going around 10 mph. As your front tire passes between the first pair of markers, make a swerve (right or left) to avoid the barrier or obstacle marked with chalk or duct tape. Make sure you've decided the direction you intend to go before starting the exercise. Do not stop or apply brakes while in the swerving maneuver.

COACHING TIPS

- To swerve right, press right, then press left and straighten to resume.
- Keep head and eyes up, knees in.
- Press on the handgrip in the direction you want to go. (Press right handgrip to lean and go right; press left handgrip to lean and go left.)
- **Do not brake and swerve at the same time.**
- Keep speed under control.



COMMON PROBLEM

1. Not avoiding barrier.
2. Not straightening smoothly after swerve.

BASIC CORRECTION

1. Slow down. Use more pressure on the handgrips.
2. Adjust pressure on the handgrip until you have cleared the marker, then press on the opposite handgrip to move into the new path and straighten.

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Illustrations by Glenn Reid

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