

Basic Rider Training Rider's Guide



Fourth Idaho STAR Edition: February 2009

It's about the journey, not the destination.

The *Basic Rider Training (BRT)* courses are designed to address the needs and interests of beginning riders. Our goal is to help you build a strong foundation of awareness and safety in what may develop into a lifelong endeavor. Since motorcycling requires both mental and physical skills, we will focus on both throughout the courses. You will learn techniques to help sharpen your judgment and perception as well as the physical skills required for riding.

Learning is an ongoing process and doesn't end when the course is finished. The *BRT* courses are intended as starting points from which to build lifelong skills. Becoming an experienced, skillful rider takes practice. That, of course, means riding and practicing the techniques presented in this course. Once you've gained experience and confidence, we encourage you to continue your formal training. Motorcycle courses geared to experienced riders are also offered. In addition to helping riders step up to the next level, these courses are also a great way to meet other riders and form lasting friendships.

So, welcome to the journey. We're glad to have you along.



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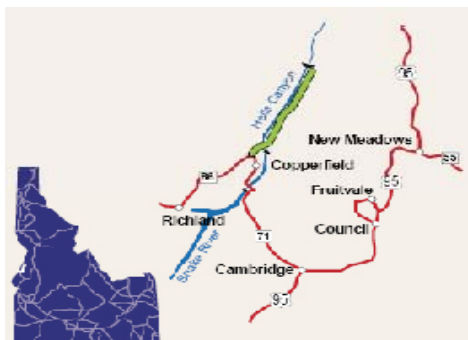
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Hells Canyon Scenic Byway
US 95 to Cambridge
Route 71 to Hells Canyon



Successful riding requires practiced skill and good judgment. You'll develop critical skills and learn about the risks of motorcycling and ways to minimize them. That's the challenge of The Ride!

INTRODUCTION

There is a thrill and a sense of freedom that comes with riding a motorcycle. It is the rhythm of the ride, the road and surroundings, your motorcycle and you. Your senses delight with every passing sight, smell and sound. To achieve this level of motorcycling magic, your senses need to be sharp. Motorcycling demands attention and skill. It challenges you to be physically and mentally prepared to handle anything that comes your way. This course is your door into the world of motorcycling. Get ready to roll the first miles of your motorcycling journey in what will be an exciting and rewarding experience. Welcome to *The Ride*.

BRT COURSE OBJECTIVES

To acquire knowledge and skills for safe and responsible motorcycle operation.

- Learn the mental skills for safe motorcycling.
 - Understand the risks associated with motorcycling.
 - Identify and develop strategies to manage risk.
- Gain the physical skills for safe motorcycling.
 - Develop the basic skills needed to balance, shift, turn, and stop the motorcycle.
 - Improve skills and finesse to handle emergency situations.

This course is designed to prepare you for street riding. You will develop basic riding skills and strategies to become a safe and responsible motorcyclist.

Your instructors are highly trained professionals who will promote your learning with classroom instruction and hands-on practice in a secure area. In the classroom we'll discuss the risks of motorcycling and identify ways to manage those risks. We'll identify strategies for becoming more alert and perceptive. We'll also explore the handling dynamics of motorcycles so that you'll have the knowledge to continue developing your skills.

On the practice range, your instructors will provide coaching to increase your skills and confidence. The course is not competitive and allows riders of varied skill levels to learn in a safe environment. So relax and enjoy the experience. Our goal is to help you be successful and safe. Ask lots of questions. We're here to help you discover the answers. Concentrate on developing your skills, your strategies and your ride — the first steps to safety!

COURSE REQUIREMENTS

To successfully complete this course, you must:

- *Attend and participate in all sessions. Be on time! Classes start promptly. Late-arriving students risk losing their reserved place in the class and tuition.*
- *Successfully complete a multiple-choice knowledge test on the material covered in class and this workbook.*
- *Successfully complete a riding skills test. The skills test consists of exercises practiced in the course, including basic handling skills, stopping quickly, cornering, and swerving.*

COURSE SCHEDULE

Note your course schedule here:

Day	Time	Classroom	Range

**IMPORTANT NOTE:
COME TO CLASS
RESTED AND READY
TO RIDE. BRING
SNACKS AND A
DRINK IF YOU WANT
SOMETHING OTHER
THAN WATER.**

**Materials and
Equipment**

THE FOLLOWING RIDING GEAR IS REQUIRED:

- 1 DOT-approved helmet**
Sanitized loan helmets are usually available—check with your instructor. You may bring your own helmet but it is subject to inspection and approval by the instructor.
- 2 Eye protection**
A helmet face shield, goggles or glasses.
- 3 Sturdy, over-the-ankle footwear**
The ankle must be covered. Low heels are preferred.
- 4 Full-finger gloves**
Motorcycle gloves are preferred. Avoid bulky gloves.
- 5 Pants**
Full-length sturdy material such as denim.
- 6 Long sleeve shirt or jacket**
- 7 Rain gear if weather is threatening**
Courses are not cancelled because of rain.

KEEPING THE LEARNING SAFE AND FUN

This course is designed for beginning riders and the exercises progress from easy to more challenging. Your expectation may be to learn to ride, to improve your knowledge and skill, and/or to comply with state law or court order. If you have other expectations, discuss them with your instructor.

UNDERSTANDING EXPECTATIONS

Experience has shown that not everyone who enrolls in a motorcycle rider course is ready to ride at that time. The problem could be nervousness, lack of concentration or coordination, balance difficulties or repeated failure to respond to coaching. You will be given many opportunities to develop essential skills and strategies in a way that ensures your safety and the safety of those around you. However, if at any time during the course your instructor determines your safety and security, and others safety and security, to be at risk, the instructor must take immediate action. Unsafe conditions are not permitted and the instructor will dismiss any student who fails to demonstrate the ability to practice safely, regardless of the reason.

While there is no guarantee that you'll successfully complete this course, most students are successful and head for the open road. But please remember that successful completion of the BRT course does not guarantee your safety. Your motorcycling journey starts with our first steps together, but it is up to you to use sound judgment, make wise decisions and keep your newly developed skills sharp. You are the only one responsible for your safety.



Motorcycles have been around for over a century. The popularity of motorcycling soared in the 1960s, when small displacement motorcycles hit our shores. Today motorcycling is enjoyed by millions of Americans.

WHAT'S RIGHT FOR YOU?

Motorcycles come in all shapes and sizes and some are designed for very specific uses. It's important for you to know what you want your motorcycle to do. Do you want to tour, or are you more interested in commuting? Do your interests lie in sport bikes, or are you more inclined to explore backcountry forest roads? What's your budget?

In motorcycling, size matters! Try on bikes to see how they fit. It's important that you feel comfortable and confident, so get a bike that allows you to reach the ground flat-footed at stops. Don't forget that you'll need to physically move the motorcycle from time to time, so pick a model you can handle. This is also true when you are riding at slower speeds. If you're uncomfortable with the motorcycle because you're afraid of dropping it or you don't think you can lift it, then it's too big! Your motorcycle dealer can help you select the motorcycle and accessories that suit you best. Look around!

SETTING UP YOUR MOTORCYCLE

When you first get your new motorcycle, take time to set it up to fit you. Some motorcycles have adjustable seat height. Many of the controls are adjustable, including the handlebar, brakes, shifter and clutch. Adjust the controls so that they are a natural extension of your hands and feet. You should not have to strain to reach or maintain comfortable contact with any of the controls.

ASSESSING THE RISK OF RIDING

A universal truth of motorcycling is that riding a motorcycle is more dangerous than driving an automobile. Motorcyclists are much more vulnerable than drivers because motorcycles lack the protective cocoon of steel roll cages, crumple zones, safety belts and airbags. Maneuvers that are routine in an auto can be hazardous on a motorcycle. Automobiles don't have to be balanced at a stop like motorcycles; drivers don't worry about minor wheel spins or skids; and, in a car, the rain and wind stay outside. All of these can be safety hazards for motorcyclists.

VULNERABILITY

When motorcycles collide with other vehicles, most often the riders are not at fault, but they are almost always injured, sometimes seriously. There is no benefit in being legally right and critically or mortally injured. As a motorcyclist, you are vulnerable. This is why motorcyclists must always be more vigilant than other motorists — more aware of our surroundings and always prepared to react. Vulnerability is also the number one reason for always wearing protective gear; we never know when we might need it!



Salmon River Scenic Byway
Route 75 from Stanley to
US93 North to Salmon



VISIBILITY — THE SIGHT TO SUCCESS

Visibility is a critical issue for motorcycles. Because motorcycles are so much smaller than autos they are more difficult to detect in traffic. Motorists often fail to notice motorcycles, and even when they do, they often misjudge the approach speed and distance. All these factors raise the risk of motorcycling. “Invisible” motorcyclists are vulnerable to vehicles violating their right-of-way and the odds of a collision increase with each passing mile. It’s up to you to take responsibility for these limitations. Make yourself visible. Don’t let yourself be hidden in traffic!

JUDGMENT IS CRITICAL

Single-vehicle crashes involving motorcycles are over-represented in crash data. The cause is most always rider error, and typically these errors are in judgment first, then skill. Good skill alone will not keep you from crashing, but good judgment can. It’s up to you to make good decisions. It’s up to you to manage risk. This is your ride! Manage the risks by thinking ahead — way ahead!

RISK ACCEPTANCE

Rider Readiness:

→ *Being completely prepared for riding. This includes being mentally prepared and attentive, physically rested and unimpaired, having your motorcycle in good condition, wearing appropriate riding gear and being aware of and prepared for upcoming weather, roadway and traffic conditions.*

Strive to achieve a constant state of Rider Readiness by understanding the challenges of motorcycling and riding within your ability.

Recognizing and accepting the risk of motorcycling is the first step in developing strategies to manage it. No sane motorcyclist intends to crash. But crashes happen. That’s why we have to be ready at all times.

MENTAL READINESS

Your mental readiness is very important. Motorcycling requires focused attention to handle the multitude of riding tasks and challenges. Your mind must be attentive to these tasks and not consumed with other issues. It is especially important to avoid anything that dulls your judgment and coordination, including alcohol and other drugs.

PHYSICAL READINESS

Ride rested. Avoid riding when excessively fatigued, stressed or preoccupied. These conditions can impair your judgment and focus — an invitation to disaster!

PROPER RIDING GEAR

Proper riding gear is essential to minimize injuries should a crash occur. It provides outstanding comfort by sealing out the elements and helping you stay focused on the ride.

UNDERSTAND YOUR ABILITIES AND LIMITATIONS

It is important to know your abilities and not exceed those abilities. Riders get into trouble when they think they can do something that they really can't. Improve your skills in small steps. Be patient and keep practicing. No one becomes an expert rider overnight.

KNOW YOUR MOTORCYCLE

Not all motorcycles are created equal. Off-road and dual-purpose bikes excel where touring bikes flounder, but a touring bike in its element is a different story. Sport bikes tilt toward performance and cruisers are more laid back. It is up to you to understand the design limitations of your motorcycle and keep safely within that designed operating range.

AWARENESS OF RIDING CONDITIONS

Awareness of upcoming roadway, weather and traffic conditions improves *Rider Readiness* and minimizes surprise.

ACCEPT YOUR RESPONSIBILITY

Once you are prepared, know your abilities and understand your machine's capabilities. It is up to you to take responsibility for riding within those limits every time. It's your ride!

Ride within the limits of your:

- 1 Personal Ability
- 2 Motorcycle's Capabilities
- 3 Environmental Conditions

Review Questions

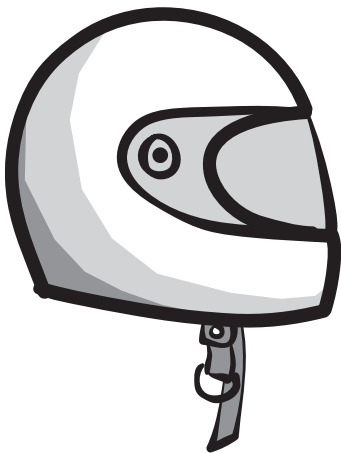
1. Give three reasons why motorcycling is more risky than driving a car.
2. What is *Rider Readiness*?
3. What does it mean to "accept your responsibility?"



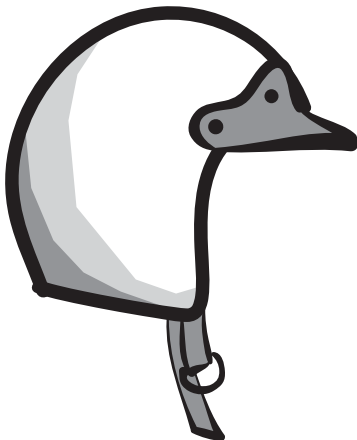
Sawtooth Scenic Byway
Route 75 from Shoshone to Stanley



Full-face Helmet



Three-quarter Helmet



GETTING IN GEAR

Riding gear is a motorcyclist's best friend. Appropriate gear makes all the difference in your comfort, concentration and safety.

- *Motorcycle riding gear should be brightly colored and have retro-reflective material to catch the attention of surrounding traffic.*
- *Riding gear should have protective pads or armor and resist abrasion to reduce the chance of injury in the event of a fall or collision.*
- *For comfort and to arrive in style your gear must be designed to stand up to all kinds of riding conditions, from rain and wind to flying debris.*

Your gear is designed to protect you, provide comfort and cover, and improve your control. Don't forget your passenger needs the same level of protection and comfort!

PROTECT YOUR HEAD

The most important piece of safety equipment you can wear is a good quality helmet that, at a minimum, bears DOT approval. There is no substitute. Look for labeling on the outside of the helmet and also sewn to the inside of the helmet. While DOT does not make helmets, they set performance standards that the manufacturers must follow by federal law. Another good indicator is a Snell Memorial Foundation sticker. Helmets with Snell Memorial Foundation certification have passed Snell's safety tests.

Even though helmets are a great way to enhance rider safety, some myths about helmets persist. You should know that helmets don't block vision, impair hearing or cause head or neck injuries. Further, studies have repeatedly shown that helmets protect against head and brain injuries. Wear a high-quality motorcycle helmet every time you ride.

CHOOSING A HELMET

Fit, price, color and style are all important considerations when choosing a helmet, but think safety first!

FULL-FACE HELMETS

When choosing a helmet, know that full-face models provide the most protection through their coverage of the face and jaw, and the greatest comfort from the elements.

THREE-QUARTER HELMETS

This style of open-face helmet is the choice of some riders who prefer the wind in their faces. Of course that wind can carry rain, bugs, sand and road debris that can be painful and distracting. And there's no protection from the continued exposure of sun and wind on your face. A three-quarter helmet affords riders good head protection but lacks the face protection of a full-face helmet.

HALF HELMETS

Half-shell helmets provide the least protection. If this is your style, make sure you get one that's designed for motorcycling so that you have the most protection afforded by this minimal helmet. Look for the DOT labeling! Some "beanie style" helmets lack an impact-absorbing liner and are not designed for motorcycle use. They provide no protection in the event of a collision.

HELMET FIT

A helmet should fit snugly but comfortably. A helmet that is too loose can lift in the wind or come off your head in a fall. One that is too tight can create sores or cause headaches. When choosing a helmet, try on several brands and sizes to get an idea of fit and comfort.

HOW HELMETS WORK

Motorcycle helmets are designed to protect your head in case of a collision or fall and to provide comfort from the elements. A full-face helmet with a shield also incorporates excellent face and eye protection.

OUTER SHELL

Helmet shells are typically made from fiberglass, polycarbonate or composite materials. They protect wearers by dispersing energy away from the head. They also resist penetration by any object that might come in contact with the helmet. However, not all helmet damage is always visible to the eye. It is important to replace any helmet that has taken an impact.

IMPACT ABSORBING LINER

The impact absorbing liner is usually made of expanded polystyrene. This is a dense layer that cushions and absorbs shock by spreading the impact forces throughout the helmet. Think about it: The more impact energy that is absorbed by the helmet, the less that's left to reach your head and brain.

COMFORT PADDING

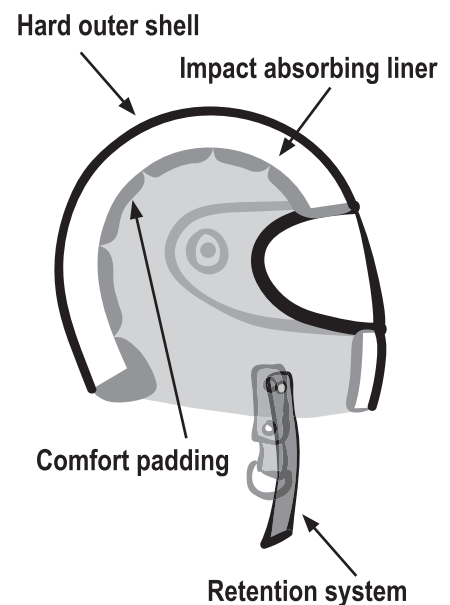
The padding within the helmet helps to increase helmet comfort and maintain fit. Some helmet padding may even be removable for cleaning purposes.

RETENTION SYSTEM

The retention system is the chinstrap with D-rings or clips that secures the helmet in place. This is very important! If properly used, the chinstrap keeps the helmet on your head in the event of a collision. Helmets that come off the head in a collision or fall can't protect you at the time when they are most needed.

Head protection is vital! Head injuries account for the majority of motorcycle fatalities.

Choose a helmet that at a minimum meets DOT standards and fits you comfortably. Wear and securely fasten the helmet every time you ride. You never know when you might need it.



Tests show that earplugs can prevent hearing loss by reducing sound levels by 30 decibels.

HELMET CARE

Helmets are designed to absorb energy that would otherwise be transmitted directly to your head. Treat your helmet with care. Don't jam it on a mirror or carry a spare on a backrest, as that compresses the inner liner, reducing its protective ability. Likewise, use caution when resting the helmet on the seat of your motorcycle. A small gust of wind can knock it to the ground and damage it. Follow the manufacturer's directions for caring for and storing your helmet.

PROTECT YOUR HEARING

The roar of engines and the rushing wind is exhilarating, but sustained exposure, even in a good-fitting helmet, can result in hearing loss. Earplugs are cheap and disposable — keep a supply handy and use them!

PROTECT YOUR EYES

Once upon a time you could identify happy motorcyclists by the bugs in their teeth. While a mouth full of dead insects may appeal to some, no one wants to lose their vision due to a fly in the eye at 50 mph — not to mention road dust, pebbles, wind and rain. Protect your vision! Windshields and eyeglasses do not provide adequate eye protection. Helmets with full-face coverage provide the best protection, but snap-on face shields and goggles also provide good protection. Goggles and some safety eyewear can restrict peripheral vision.

FACE SHIELDS

Helmet face shields are available in an increasing range of styles and tints. For full-face helmets, face shields flip up for added convenience. Riders should make sure that their face shields are designed specifically for the helmet they are using, are impact resistant, and are securely fastened to their helmets. Face shields should accommodate eyeglasses or sunglasses to be worn while riding and should be optically clear and free from scratches that might impair vision. Use a clear (untinted) shield at night or in low-light conditions.

CARE

Clean your shield or goggles with a mild solution of soap and water and use a soft cloth for washing and drying. Don't use paper products as they can scratch the plastic. When your shield becomes scratched, replace it.

PROTECT YOUR HANDS

Gloves provide comfort from the elements, improve your grip on the controls and reduce hand fatigue. They also protect your hands from abrasion and injury in a crash. Gloves specifically designed for motorcycling are best. They are curled to provide a natural grip and have seams on the outside to prevent irritation. Gauntlet gloves fit over the cuff of your jacket and keep cold air from rushing up your sleeves. There are also lighter gloves designed specifically for warmer weather, as well as heavier, insulated gloves that are ideal for winter riding. Adjustable retention straps help keep gloves snug.

PROTECT YOUR ANKLES AND FEET

Sturdy over-the-ankle boots are recommended for motorcycling. They protect you from the elements and from hot or sharp motorcycle parts. Boots with rubber soles and low heels are best. They provide a secure grip on the pavement when stopped and provide a good grip on the footrests. In the event of a collision, sturdy boots protect you from foot and ankle injuries. If your boots have laces, be sure to tuck them in so they don't get caught in moving parts of the motorcycle.

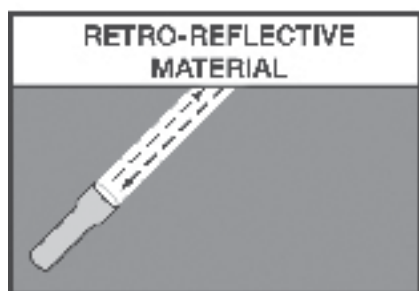
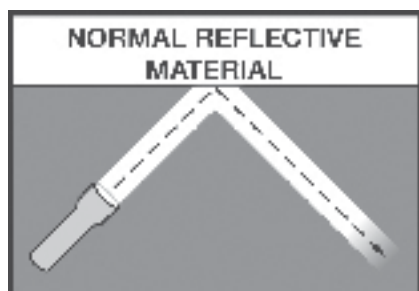
PROTECT YOUR BODY

Motorcycle jackets, pants and riding suits provide comfort in just about all conditions as well as protection in case of a collision. This gear is specifically designed for riding. Riding jackets, pants and suits are made to allow a comfortable riding position. Sleeves and legs are cut longer. Extra material and armor are often installed at the knees, back, shoulders and elbows to provide lasting comfort and protection. Zippers and flaps that seal out the wind can be opened for ventilation.

Good quality gear helps to insulate you from inclement conditions, allowing you to concentrate on riding rather than battling the elements. Even a collar that flaps against your helmet or your skin can be irritating and distracting. Avoid these distractions by choosing quality riding gear.



Leather has always been a popular choice, as its durability provides protection against injury and wind fatigue. Another option is durable, abrasion-resistant outerwear designed specifically for motorcycling. One- or two-piece riding suits made of water-resistant materials are good choices for year-round riders. For warmer climates, consider hot-weather riding gear made with mesh and ventilation panels with armor.



Normal Reflective vs.
Retro-Reflective

Choose gear for durability, comfort, protection and visibility. Black is hard to see in daytime and invisible at night. Select gear with retro-reflective striping or patches. Retro-reflective material reflects light back to the source and illuminates the rider. Bright colors and retro-reflective materials are the best choices for keeping you visible to surrounding traffic both day or night.

Protect yourself in all kinds of weather. Constant exposure to the elements is both physically and mentally hazardous. Dehydration, overheating and hypothermia can compromise your judgment and cause decreased vision, light-headedness, and impaired coordination. Be prepared by choosing proper riding gear. In hot weather, wear gear with adequate ventilation. Properly ventilated riding gear promotes cooling which results in less dehydration and overheating. Also, riding in hot weather can cause you to lose a surprising amount of fluid through perspiration — drink plenty of water to keep yourself hydrated. When riding in cooler weather, wind chill can cool the body quickly and can cause hypothermia, a dangerous lowering of body temperature. Dress in layers to stay comfortable as conditions change. Remember, proper protective gear is essential for safety. Don't allow your senses to become so dulled that you fail to register changing traffic conditions!

RAIN GEAR

Riding in the rain is not a problem if you are prepared for it. A warm and dry rider is much more attentive and comfortable than a chilled, wet one. Choose a rain suit specifically designed for motorcycling. It will keep the water out, provide comfort and visibility, and stand up to the wind. Don't forget waterproof gloves and boot covers. Be prepared — always carry rain gear!

Select your riding gear with three things in mind: comfort, protection and visibility — safety in style and motion!

INSPECTION AND MAINTENANCE

“An ounce of prevention is worth a pound of cure.” This is especially true with motorcycles. It is always better to deal with a mechanical problem before the ride than suffer a breakdown during it. For your added safety, take a few moments before every ride to inspect your motorcycle.

- *Fluids — Check your fuel and oil levels. Always be on the lookout for weeps and leaks that indicate fluid loss.*
- *Tires — Check for wear and damage. Make sure tires are inflated to the proper pressure.*
- *Controls — Controls should operate smoothly and be properly adjusted.*
- *Electrics — Check your headlight, high beam, brake light, signals and horn.*
- *Final Drive — Chain drives should be properly adjusted and lubricated. Belt drives should be inspected for wear or damage. Shaft drives should be checked for leaks.*

Your Motorcycle Operator’s Manual (MOM) is the best source of information for operating and maintaining your motorcycle. If you don’t have one for your motorcycle, you can purchase a replacement from your dealer.

Follow the recommended maintenance schedule prescribed in the MOM. Regular maintenance is the best way to avoid expensive emergency repairs. Plan ahead — don’t risk mechanical failures. Always follow the recommendations in your operator’s manual.

Review Questions

1. What is the benefit of wearing apparel specifically designed for motorcycling?
2. How does riding gear make a rider more comfortable?
3. What is the difference between retro-reflective and reflective?
4. Why aren’t ordinary glasses or sunglasses sufficient eye protection?
5. When should you carry rain gear?
6. What three things should you consider when shopping for riding gear?
7. Where do you find the recommended maintenance schedule for your motorcycle?



Thousand Springs Scenic Byway
US 30 from Bliss to Idaho Route 50



Get to know the location and operation of your motorcycle's controls. Using these controls should become second nature, a comfortable extension of your hands and feet.

PRIMARY CONTROLS

Five primary controls make the motorcycle go and stop. You will find that it takes both hands and both feet to operate these five controls.

THROTTLE

The throttle is the right handgrip and is operated by rolling the handgrip toward you to increase speed and away from you to decrease speed. When released, the throttle snaps back to an "idle" position. To use the throttle safely and comfortably, keep four fingers around the throttle/handgrip and the wrist in a low position.

CLUTCH LEVER

The clutch lever is located in front of the left handgrip. Operate the clutch lever by squeezing it toward the left handgrip, disconnecting power from the rear wheel. To re-engage power, slowly release the clutch lever while gently applying throttle.

GEARSHIFT LEVER

The gearshift lever, located on the left side of the motorcycle in front of the footrest, is operated by the left foot. To shift to a higher gear (upshift), squeeze the clutch and then

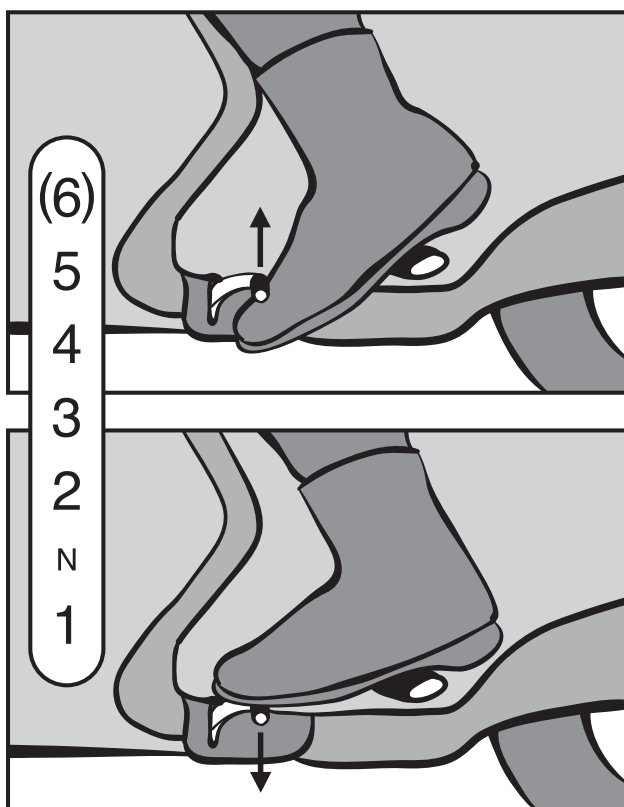
lift the gearshift lever. To shift to a lower gear (downshift), squeeze the clutch and then press the gearshift lever. Remember that motorcycle transmissions shift only one gear per each lift or press - the shift lever must be released before you can shift again. The shift pattern is 1-N-2-3-4-5-(6). Neutral (N) is typically a half-shift up from first or a half-shift down from second; a full upshift or downshift will bypass neutral. The green instrument light indicates neutral.

FRONT BRAKE LEVER

The front brake lever is located in front of the right handgrip and controls the brakes on the front wheel. To operate, use all four fingers and squeeze smoothly and progressively.

REAR BRAKE PEDAL

The rear brake pedal controls braking on the rear wheel and is located in front of the right footrest. Press down with your right foot to operate.



Gearshift Lever Operation

OTHER CONTROLS AND EQUIPMENT

The location and operation of some of these controls vary from model to model. Consult your motorcycle owner's manual.

ENGINE CUT-OFF SWITCH

Located on the right handgrip and operated by the right thumb. It allows you to shut off the engine without removing your hands from the controls.

FUEL SUPPLY VALVE

May not be present on some motorcycles. Controls fuel supply to the engine. Turn from OFF to ON to run. Also may include RESERVE and PRIME positions.

IGNITION

Usually located near the instrument cluster and activated with a key. Positions include ON, OFF, LOCK and PARK. The LOCK position allows the key to be removed and engages a steering-lock mechanism. PARK activates the taillight for increased visibility if you park alongside a roadway at night.

CHOKE

Frequently located near the left handgrip and operated with the left thumb, but varies from model to model. The choke provides an enriched fuel mixture to assist in cold engine starts. Turn to OFF position when engine is warmed.

TURN SIGNAL SWITCH

Usually located on the left handgrip and operated by the left thumb. Most models do not self-cancel. Check your owner's manual.

HIGH/LOW BEAM

Located on left handgrip. On most motorcycles the headlight activates when the ignition is on.

HORN

Located on the left handgrip. Press with your thumb.

STARTER

Located on the right handgrip. Press with your thumb.

SPEEDOMETER

Located in the instrument cluster. Indicates motorcycle road speed. An odometer shows miles ridden, and a re-settable trip meter can be used to show trip miles or miles since the last gas stop.

TACHOMETER

Located in the instrument cluster. Indicates motorcycle engine speed in revolutions per minute (RPM). Never exceed red line RPM.

INDICATOR LIGHTS

Located in the instrument cluster. Includes neutral, turn signals, oil pressure, high beam, side-stand down and possibly others.

MIRRORS

Every motorcycle should have a left and right mirror. Most mirrors are convex. Convex mirrors provide a wider view than flat mirrors but make vehicles seem further away than they really are. Get familiar with your motorcycle's mirrors. Adjust them so that your shoulder and upper arm are just visible. This gives you the maximum view to the rear and the side.

SIDE AND CENTER STANDS

Support the motorcycle when parked. Not all models have center stands. Most stands have return springs that snap them up and hold them in place. Always raise the stand before riding.

Review Questions

1. What are the five primary controls and where is each located?
2. What is the purpose of the engine cut-off switch and where is it located?
3. What must you remember when using your motorcycle turn signal?

IDENTIFYING THE MOTORCYCLE'S CONTROLS

Use the illustration below to identify the motorcycle's controls.

Clutch Lever _____

Ignition _____

Gear Shift _____

Horn _____

Throttle _____

Front Brake _____

Rear Brake _____

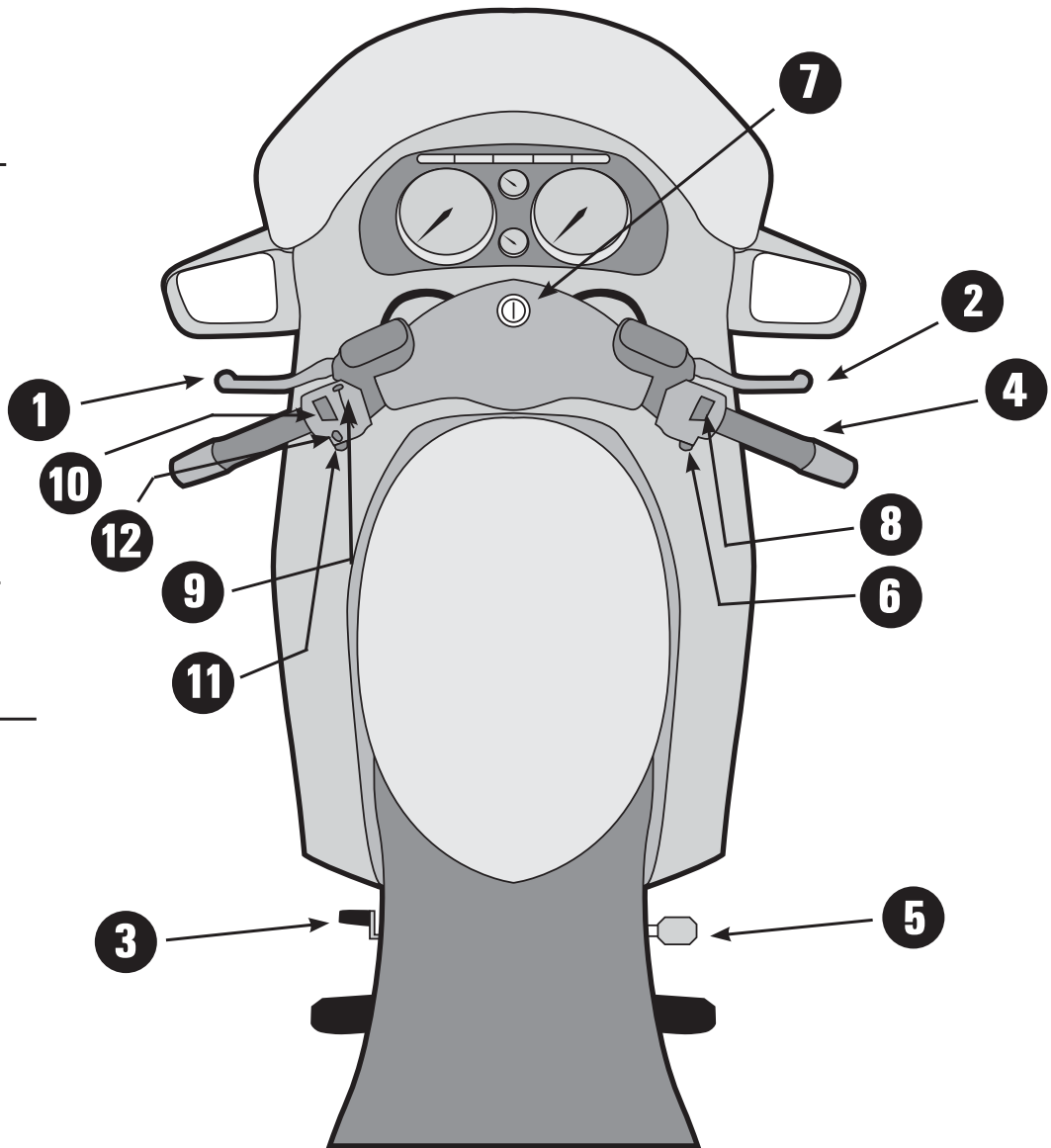
Starter _____

Engine Cut-off _____

High Beam _____

Choke _____

Turn Signal _____



ONE-C

O On

N Neutral

E Engine Cut-off
Switch

C Clutch/Choke

MOUNTING AND DISMOUNTING

Let's get ready to ride! Stand on the left side of the motorcycle. Grasp the handgrips, squeeze the front brake to keep the motorcycle from rolling, keep your head and eyes up and swing your right leg over the seat. Sit and straighten the bike; raise the sidestand with your foot. Now is a good time to adjust the mirrors so that you can just see the edge of your shoulders in the mirrors. To dismount, put the sidestand down. Lean the motorcycle onto the sidestand, squeeze the front brake and swing your leg over. Turn the handlebar fully toward the sidestand for stability.

STARTING THE MOTORCYCLE

To start the motorcycle, use the ONE-C pre-start routine:

- Turn the fuel valve from OFF to ON. Turn the ignition switch ON.
- Shift the transmission to NEUTRAL. Don't rely on the indicator light. Rock the motorcycle back and forth with the clutch out before starting the engine. If it rolls freely and the neutral light is on, it's in neutral.
- Engine cut-off switch to RUN or ON.
- Many motorcycles require squeezing the clutch before the starter will operate. Even if this is not required, it is a good precaution against accidentally starting the bike in gear. Use the choke as needed. Turn the choke ON for cold starts.

START IT UP!

Press the starter button. Avoid using the throttle; the motorcycle should start without it. Many motorcycles have a safety mechanism that cuts power to the motor if the bike is placed in gear with the sidestand down; so if you haven't brought the sidestand up, do it now. If the motor doesn't start in the first 5 to 8 seconds, stop and repeat ONE-C. Once started, remember to turn off the choke after the engine is warmed up.

TO STOP THE ENGINE

Turn the engine cut-off switch to OFF. Do this every time so that you will automatically reach for the switch quickly in an emergency. Turn the ignition OFF. Turn the fuel valve OFF if your motorcycle has one.

GETTING UNDERWAY

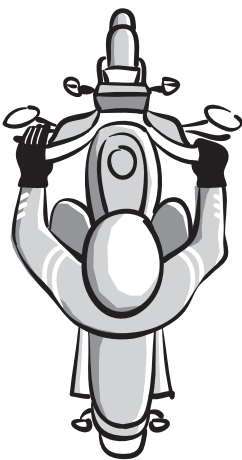
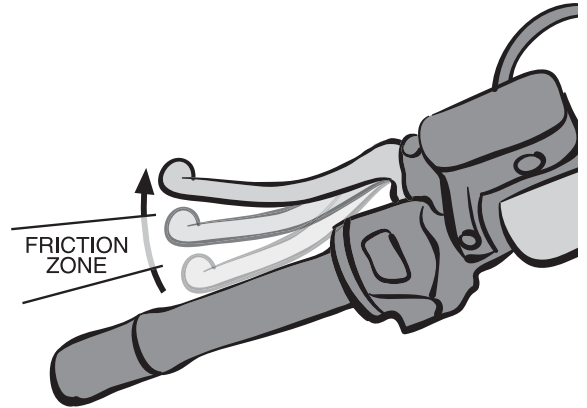
With the motorcycle started, you are now ready to start moving. Follow these procedures to smoothly get underway.

USE THE FRICTION ZONE

Squeeze the clutch and shift into first gear. Because a motorcycle has a manual transmission, it takes a little “clutch slip” to get underway. Use the friction zone — the area of clutch travel where the engine’s power begins to transmit to the rear wheel. This partial engagement allows you to smoothly and precisely control engine power to the rear wheel. Don’t be in a hurry. Take your time easing out the clutch. Let the motorcycle get underway before fully releasing the clutch.

ASSUME GOOD RIDING POSTURE

Good riding posture enhances your comfort and control, and makes you look good, too! Straighten your back, keep your head and eyes up and look where you want to go. Place your feet on the footrests near the controls, knees against the tank. Relax your arms and bend your elbows slightly. Hands should comfortably reach the controls without straining. During this course you will be coached to cover the clutch with all four fingers and keep your right wrist low on the throttle. Keep all fingers curled around the throttle — do not cover the front brake when you are learning to ride. Learn to roll off the throttle as you reach for the front brake lever with all four fingers. Reach and squeeze, then return your hand to the throttle.



Proper Riding Posture

TURNING

The secret to smooth and successful cornering lies in proper head turns and keeping your eyes up. Where you look is where you go. As you'll discover on the range, if you look through the turn you'll ride through the turn. If you look out of the turn, you'll ride out of the turn. Remind yourself to look ahead. Turn your head to face all the way through corners. This gives you the essential information to negotiate turns safely and skillfully.

There are four basic steps to turning a motorcycle:

SLOW
LOOK
ROLL
PRESS

SLOW

Reduce speed before the turn. Close the throttle and/or apply the brakes as necessary. Downshifting can also help reduce speed if necessary. Slow enough before the turn to allow smooth and constant throttle roll-on through the turn.

LOOK

Turn your head and look as far as possible through the turn. Keep your head facing your intended path of travel. Keep your eyes level with the horizon. Use your peripheral vision to search the immediate area.

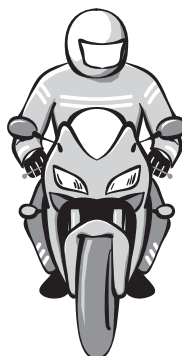
ROLL

As you approach the entrance to the curve and before you lean, gradually roll on the throttle. Maintaining steady speed or gentle acceleration stabilizes the suspension and improves overall control. Avoid abrupt acceleration while turning.

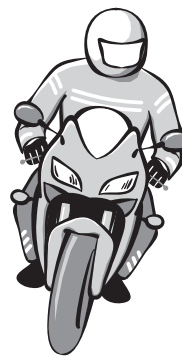
PRESS

Lean the motorcycle into the turn by applying gentle, forward pressure to the handgrip in the direction of the turn. To turn right, press on the right handgrip. To turn left, press on the left handgrip. While this may sound backwards, the technique, known as countersteering, really works. A motorcycle must lean in order to turn. The pressure on the handgrip (countersteering) causes it to lean in the direction of the turn.

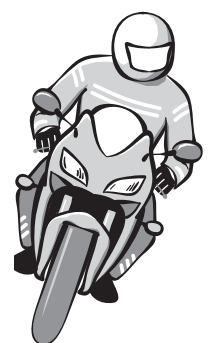
Press to Lean



Rider countersteers.



Front wheel momentarily out-tracks away from turn, causing motorcycle to begin leaning in turn direction.

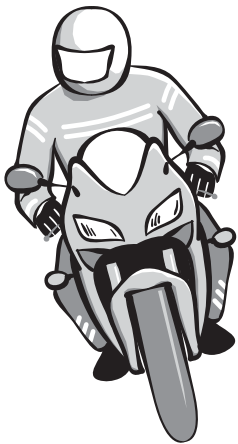


Motorcycle stabilizes in turn, front wheel re-centers.

POSTURE IN TURNS

In most turns you and your motorcycle lean together. However for slow, tight turns you may find it useful to counterweight, putting your weight on the outside footpeg, or even shifting your body toward the outside. This allows the motorcycle to lean while you remain upright to balance the motorcycle. Remember to turn your head and look where you want to go. At low speeds, that might be right back over your shoulder. For very tight turns, you'll have to turn the handlebar as the bike starts to lean.

LEAN WITH



Normal Speed Turns

LEAN OUT



Slow, Tight Turns

Proper Turning Posture



SHIFTING

You must change gears to keep the engine within its best operating range at all speeds.

SHIFTING TO A HIGHER GEAR

Your goal is to match engine speed to road speed and avoid over-revving or lugging the engine. As engine speed increases, upshift to a higher gear. You'll soon find shifting routine and enjoyable. Use this five-step process to upshift to a higher gear:

1. *Roll off, or close, the throttle.*
2. *Squeeze the clutch.*
3. *Lift the shift lever. Use firm pressure. Release the shift lever after each shift is completed.*
4. *Ease the clutch out.*
5. *Roll on the throttle.*

SHIFTING TO A LOWER GEAR

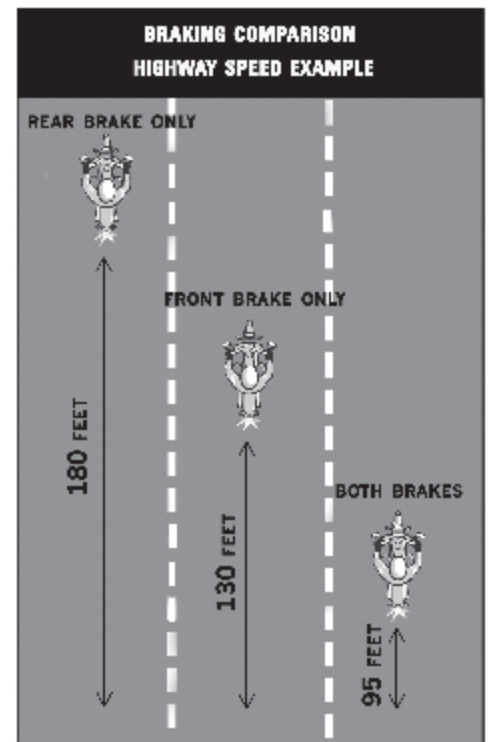
Downshift to match engine speed with road speed, provide more acceleration, or to use engine compression to slow the motorcycle. To use this four-step process when downshifting:

1. *Roll off the throttle.*
2. *Squeeze the clutch.*
3. *Press down firmly (but don't stomp) on the shift lever.*
4. *Ease. Engine braking is at work here, and that can have the effect of stepping hard on the rear brake – eeease out the clutch to avoid skidding the rear tire.*

It is possible to downshift several gears in succession. Hold the clutch in and press once for each gear. When you can downshift no more, you're in first. Remember to release the shift lever so it can return to the center position after each shift.

STOPPING

Your hands and feet must work together to bring the motorcycle to a smooth and coordinated stop. All the braking controls are on the right side — right hand and right foot — and all shifting controls are on the left side. When stopping keep your head and eyes up, looking ahead. Always begin braking first, then squeeze the clutch and downshift. With practice the action becomes nearly simultaneous: IN (brake, clutch) and DOWN (rear brake and shift lever). Keep the clutch squeezed as you complete your downshifts to first gear. After you stop, place your left foot down first. The right foot applies the rear brake. Once stopped, place the right foot down if necessary.



Using both front and rear brakes shortens stopping distance

The front brake provides at least 70% of the motorcycle's total stopping power. Always use both brakes, even for routine stops.

Habits formed now will become automatic actions later.

Review Questions

1. What is ONE-C?
2. How do you use the friction zone?
3. Describe good riding posture.
4. What are the four steps to turning?
5. Why is the “look” step important?
6. What does lifting or pressing on the shift lever accomplish?
7. Which brake provides more stopping power? How much does it provide?
8. How should you release the clutch when downshifting?



Payette River Scenic Byway
Idaho Route 44 north on
Route 55 to New Meadows



Motorcycling is mostly mental. Responsible riders always think ahead to chart a safe path through traffic. This is mental motorcycling -- the art of *The Ride*.

Once you develop the physical skills of motorcycling, you're ready to hit the streets, right? Wrong. Handling a motorcycle is only one part of safe and successful riding. Now you need to take the next step and develop a set of street riding strategies that are the core of what we call "mental motorcycling." This is a constant game of "what if?" What if that car turns left? What if the bicyclist crosses in front of me? What if that's oil on the street, not water? As a street rider, your success and survival depend on your developing the fundamental skills of mental motorcycling.

VISIBILITY

One of the most important strategies motorcyclists must develop is to see and be seen in traffic. In multi-vehicle crashes involving motorcycles, motorists often fail to detect motorcyclists until it's too late to avoid a collision. These factors contribute to that scenario:

- *Motorists fail to actively scan for traffic or confirm that it is safe to enter an intersection.*
- *Riders fail to command attention and communicate their presence and intentions. Often a rider is hidden from view by other traffic.*
- *Riders fail to detect motorists or fail to anticipate that a motorist will violate their right-of-way.*

Visibility is a crucial component of mental motorcycling. Communicate your presence and intentions to other highway users. Even then, you must be ready to take evasive action at any time, especially if you doubt that you've been seen.

STRATEGY ■■■■ TO SEE AND BE SEEN IN TRAFFIC

BEING SEEN

You have several ways to communicate your presence to other motorists:

CLOTHING

Brightly colored clothing and a light-colored helmet will help make you more visible to other highway users. Also, retro-reflective material on your helmet, clothing and motorcycle will help you stand out in traffic.

HEADLIGHT

Ride with your headlight on at all times. In Idaho, the same rules apply to high beam use during the day as at night. Be aware that flashing your high beam can be misinterpreted by other drivers as your giving up your right-of-way.

SIGNALS

Communicate your intentions. Use your turn signals to let others know your intentions. Don't forget to cancel your turn signal. Use hand signals along with electric signals to help alert traffic around you. Never assume that drivers see you or anticipate your moves. Clear communication is your responsibility.

BRAKE LIGHT

When stopping in traffic, flash your brake light to alert traffic approaching from the rear. The motorcycle's brake light can blend in with other lights, especially at night. A flashing light attracts more attention.

HORN

Vehicle drivers accustomed to relying on horns to alert other motorists should be forewarned: motorcycle horns are not loud enough to reliably do the job, so don't count on them to make others aware of your presence.

COMMUNICATE YOUR PRESENCE AND INTENTIONS ■ ■ ■ ■ STRATEGY

SEEING OTHERS

Research shows that most motorcycle crashes develop from hazards in front of us. One key to successful street riding is in searching out these potential hazards and anticipating their actions and consequences. Finding others before they find you requires alertness and accurate perception.

FIND HAZARDS BEFORE THEY FIND YOU ■ ■ ■ ■ STRATEGY

SCANNING

The first step of mental motorcycling is assessment — finding the critical information needed for success and safety. That search is primarily accomplished through what you see. Therefore, you must develop scanning skills that provide accurate information.

Scanning for potential hazards includes more than just looking in front of you. You must always be aware of what is to either side and behind. Scanning is an aggressive, purposeful search for information. Don't let your eyes fix on any one object for more than a split second. Things happen quickly on the street, and it only takes an instant for a hazard to materialize.

STRATEGY ■■■■ LOOK WHERE YOU WANT TO GO!

LINE OF SIGHT

Select a path of travel that will give you the best line-of-sight. This strategy keeps us on target, alert and aware of changing conditions. It also helps prevent overriding our sight distance. This occurs when you ride at a speed that does not allow time or distance to stop or swerve should a hazard enter your path or when the road takes an unexpected bend.

CHART A COURSE AS FAR AS YOU CAN SEE

Look ahead as far as you can to scan a 20 second path of travel. That means looking ahead to an area it will take you 20 seconds to reach. This gives you situational awareness — time to prepare for a hazard before it is in your immediate path.

AGGRESSIVELY SCAN A 10 SECOND IMMEDIATE PATH OF TRAVEL

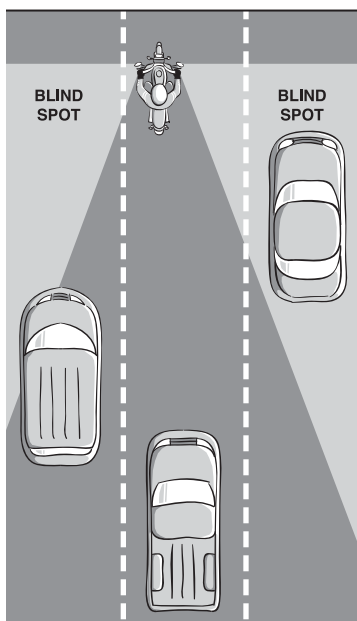
The area 10 seconds ahead is your immediate path of travel. Situations developing within this area require your immediate response. Scan ahead, to the roadsides and to your mirrors. Look for movement — any movement that could potentially intersect your path or create risk. Whether it's a vehicle, a pedestrian or an animal, things that move can be hazardous. Be especially careful as you approach intersections. This is where most multi-vehicle collisions occur.

CHECK TRAFFIC TO YOUR SIDES

Avoid lingering in another vehicle's blind spot. If you can't see the driver in the mirror, the driver can't see you. And if the driver can't see you, expect that vehicle to move into your lane at any time.

CHECK MIRRORS BUT RELY ON HEAD CHECKS

Mirrors are an important safety tool, but riders are encouraged not to rely on them exclusively to know what's taking place behind them. As with automobile mirrors, motorcycle mirrors have "blind spots," which requires riders to turn their heads to see what the mirrors may have missed. Use of mirrors and head checks is essential when changing lanes, merging, turning and stopping.



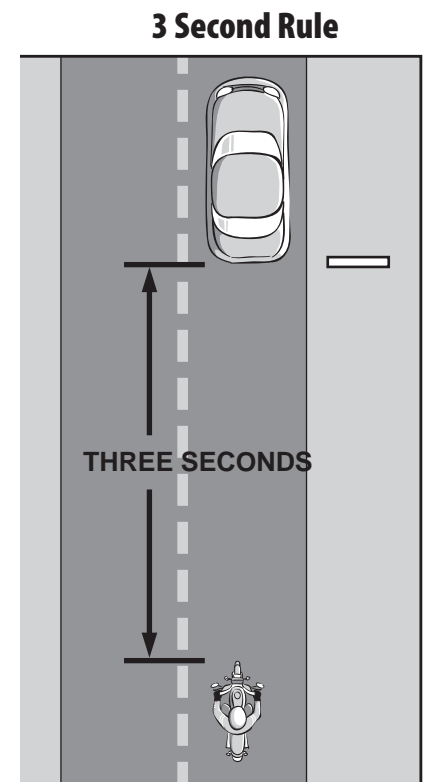
Check Your Blind Spots

FOLLOWING DISTANCE

Three seconds is the minimum following distance at low speeds when conditions are ideal. Anything less than ideal — higher speeds, heavy traffic, bad weather, unfamiliar environments, fatigue or reduced rider readiness, etc. — demands a minimum of four or more seconds of following distance. Here's how it's done:

1. Pick out a fixed object ahead, like a sign, pavement marking or shadow.
2. As the vehicle ahead passes the object, count off: "one-one-thousand, two-one-thousand, three-one-thousand."
3. If you reach the fixed object before reaching three seconds, you are following too closely. Give yourself more space and try again.

Remember, **three seconds is the minimum room to maneuver**. It is not enough distance to stop. The greater the following distance, the greater the margin of safety, especially when conditions are less than ideal.



MAINTAIN A MINIMUM 3-SECOND FOLLOWING DISTANCE

STRATEGY

LANE PLACEMENT

It is important to choose a lane position appropriate for the conditions. Your lane position can help you to communicate with other traffic, see and avoid roadway hazards, create space between yourself and other vehicles, and provide an escape route. Position yourself where other motorists are expecting to see traffic and where you have the greatest margin of safety. Be visible!

CHOOSE A LANE POSITION THAT PROVIDES OPTIMUM VISIBILITY, LINE OF SIGHT, A SPACE CUSHION AND ESCAPE ROUTE

STRATEGY

SEE AND BE SEEN

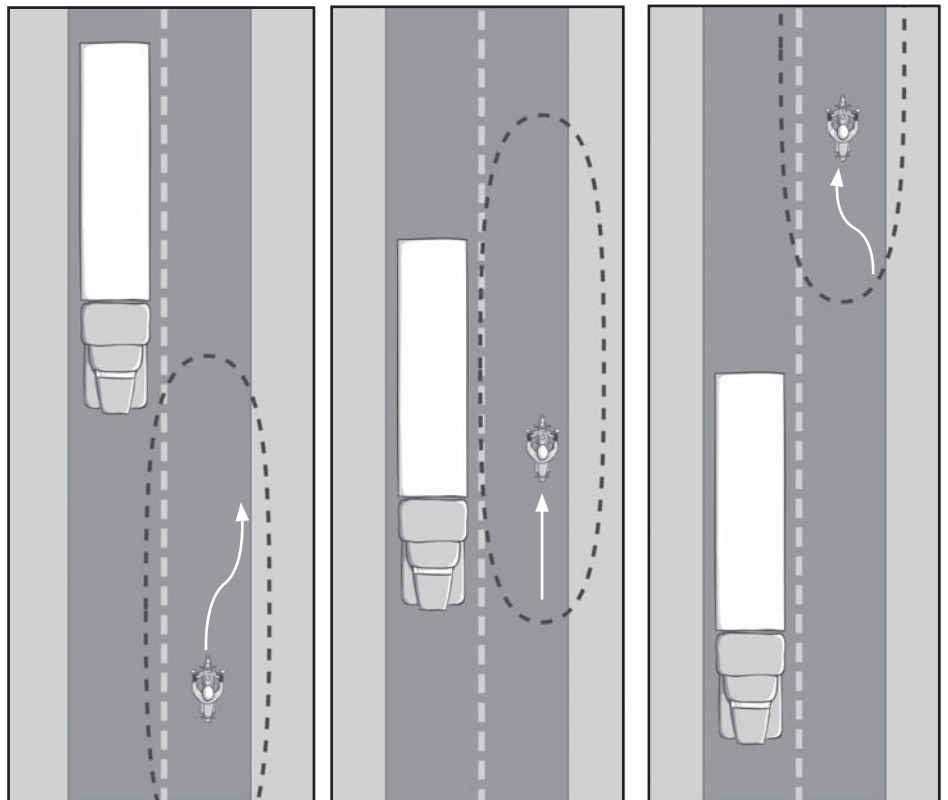
Consider the following strategies when selecting a lane position: Your lane position should provide you with the best position to see and be seen and for you to communicate your intentions to traffic ahead, behind and to the sides. If you are hidden behind a larger vehicle, traffic to the front can't see you — so expect an oncoming car to turn left in front of you just as the vehicle you are following clears the intersection. Don't hide in traffic. If you can't see the drivers around you, they can't see you.

STRATEGY ■■■■■ BEING SEEN IS YOUR RESPONSIBILITY

SPACE CUSHION

A space cushion is the area surrounding you in the traffic flow. Allow adequate distance to the front, rear and sides. This principle holds true whether you are moving or at a stop in traffic.

STRATEGY ■■■■■ ALWAYS MAINTAIN A SPACE CUSHION AND AN ESCAPE ROUTE

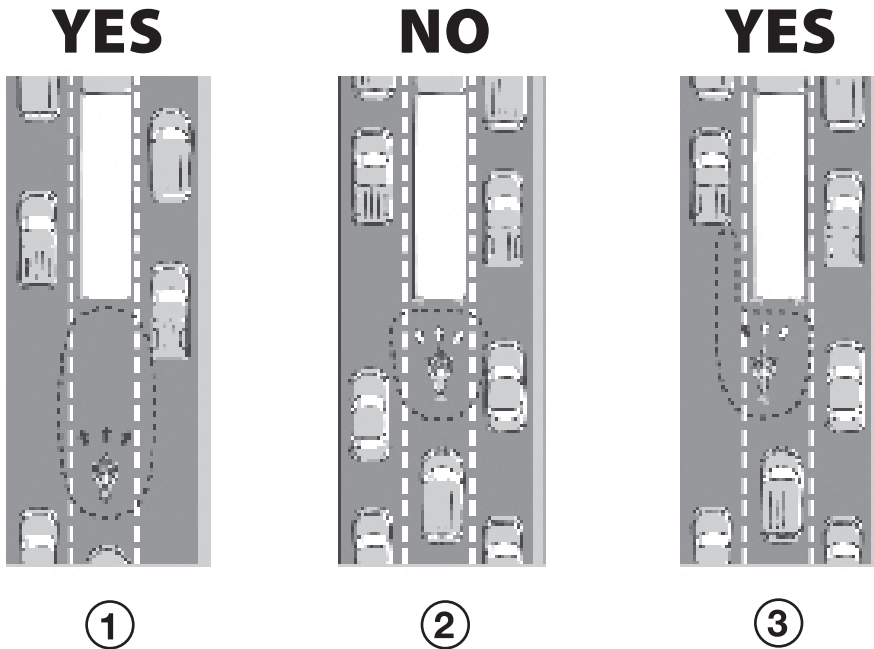
Maintain a Space Cushion from Oncoming Traffic

ESCAPE ROUTE

An escape route is an alternate path of travel that you can take if a hazard develops in your path. No matter what the conditions, always maintain an escape route — your way out.

Maintain an Escape Route!

- ① Bumper to bumper traffic
Cushion preserved
Three escape routes open
- ② Truck ahead stops
Vehicle behind still approaching
All escape routes closed
- ③ Truck ahead stops
Vehicle behind still approaching
Left side escape route still open

**PROTECT YOUR LANE**

Avoid sharing your lane with other vehicles. Lane sharing violates the principles of space cushioning and compromises your ability to maintain an escape route. Command attention and protect your space within the lane.

AVOID SURFACE HAZARDS

Surface hazards such as potholes, gravel and ruts can be avoided by employing the line-of-sight strategies addressed earlier. By protecting your lane, you maintain the necessary space cushion and escape route for avoiding surface hazards.

Review Questions

1. How can you improve your visibility to other traffic?
2. What is the 20 second visual lead?
3. What two words best describe scanning?
4. What is the recommended minimum following distance?
5. What should you consider when choosing a lane position?

THE SIPDE PROCESS

Expert Motorcyclists

→ *Riders who use expert judgment to avoid using their expert skills.*

Expert riders know what's going on around them and act early, responding to potential problems before they become life threatening. Become an expert rider by developing expert judgment. SIPDE is the acronym for a mental strategy used to make sound judgments and reduce risks in traffic. It stands for:

SIPDE**S Scan****I Identify****P Predict****D Decide****E Execute****SCAN**

Search aggressively ahead, behind and to the sides for potential hazards. What you don't detect can hurt you! Scan aggressively to recognize problems before they become critical. Keep your eyes moving in a purposeful search for information.

IDENTIFY

An aggressive search will allow you to identify hazards and potential conflicts early. Hazards fall into the following three categories:

1. *Other vehicles – traffic sharing the road with you. Your reactions to other vehicles are critical.*
2. *Pedestrians and animals – they move unpredictably and, depending upon their size, can create an imposing hazard.*
3. *Fixed hazards – stationary objects near and alongside the roadway, surface hazards, signs and signals, guardrails, bridges, etc. They don't move, but failing to recognize them can be hazardous.*

PREDICT

Once you've identified the hazard, the next step is to quickly predict what it will do. How critical is the situation? What are your options? What are the consequences? Will the hazards separate or is action required? Is collision imminent? This is the "what if" phase of SIPDE that depends upon your knowledge, experience and skill. An aggressive search has presented you with critical information — be prepared to act on it!

DECIDE

The next step calls for decisions based upon your prediction. Complete the "what if" phase to estimate results. What are you going to do, and how are you going to do it? In any situation you have three choices:

1. *Adjust speed – speed up, slow down or stop.*
2. *Adjust position – move left or right.*
3. *Communicate – sound your horn, flash your brake light or headlights, signal, etc.*

EXECUTE

Act on your decision. This is the physical part of the SIPDE process. Now is the time to apply your skills:

- *Adjust speed – roll on or off throttle, brake, or downshift for greater acceleration.*
- *Adjust position – press left or right.*
- *Communicate – press the horn button, flash the lights, etc.*

Your safety and success on the street requires effective use of SIPDE. Riders with excellent physical skills and poor SIPDE skills ride into trouble much more often than riders with poor physical skills and excellent SIPDE skills. Become an expert rider by applying good judgment and riding responsibly.

INTERSECTION SITUATIONS

Most multi-vehicle collisions occur at intersections. Typically the driver violates the motorcyclist's right of way. The driver's most common response is "I didn't see the motorcyclist." Active use of SIPDE and proper lane positioning will make you more visible and better prepared to deal with hazards at intersections.

Be alert and ready when approaching intersections. Maintain a space cushion and always have an escape route. Cover the clutch and brakes for a quicker response. Downshift if necessary so that you are ready to accelerate away from a hazard. Adjust your lane position to create space and increase visibility.

Anywhere another vehicle can enter traffic is considered an intersection. This includes driveways, merge lanes, alleys and parking lots. Plan ahead before reaching an intersection. Be especially careful when your visibility is blocked. If you can't see an intersection, the drivers waiting at that intersection can't see you.

First priority is the traffic ahead, where most collisions occur. Many hazards approach from the left. Be ready to take evasive action if an oncoming car waiting to turn left doesn't wait for you. Your SIPDE process will have identified this hazard and predicted that the motorist might turn, so be ready when your prediction comes true.

Don't forget to check behind you. When stopped, waiting to turn or waiting for a light to change, check behind you and flash your brake light to command attention. Always keep your bike in first gear at stops. Set up to one side of the lane and give yourself at least two bike lengths from the vehicle in front, so you have room to maneuver in an emergency. Be ready to escape if the vehicle behind you fails to stop or yield.

First priority is the traffic ahead, where most collisions occur. Many hazards approach from the left. Be ready to take evasive action if the driver waiting to turn left doesn't wait for you.

Even after you apply all known street strategies, there is no guarantee that others will see you. Never count on eye contact to ensure that you have been seen. Too often, drivers look right at motorcyclists and still fail to see them. The only eyes that count are your own. If a car can enter your path, predict that it will. It's that simple!

NON-INTERSECTION SITUATIONS

In urban settings, the area between intersections holds plenty of hazards. Cars parked along the roadside can move without notice. Doors may open unexpectedly into traffic. Pedestrians can enter your path. Maintain your space cushion and expect these situations to occur.

CHANGING LANES AND PASSING

The risk associated with changing lanes generally comes from failure to check your mirrors and blind spots. Here is the best way to change lanes:

- *Plan your move.*
- *Move to the side of your lane to increase your line of sight.*
- *Signal first, then check your mirror to the side you are moving.*
- *Make a quick over the shoulder head check to see what is in your blind spot.*
- *When you are certain it is safe, change lanes - Go.*
- *Cancel your signal after completing the maneuver.*

STRATEGY ■■■

CHECK YOUR BLIND SPOT BEFORE PASSING OR CHANGING LANES

SMOG-C

- S** Signal
- M** Mirror
- O** Over the Shoulder
- G** Go
- C** Cancel Signal

Apply the acronym SMOG-C when passing or changing lanes. It is a good habit to develop and should become second nature with time.

SMOG-C for Passing or Changing Lanes

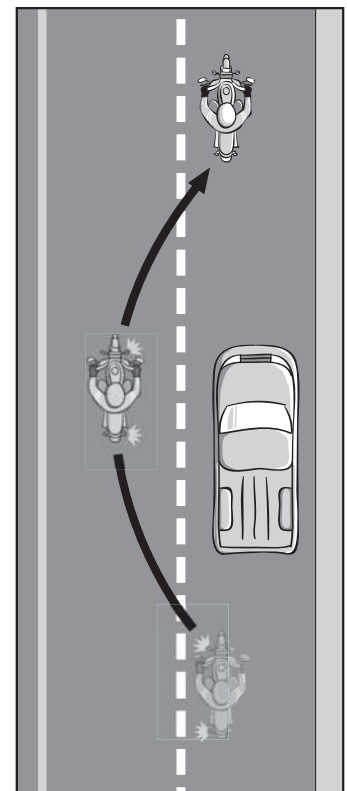
Passing other vehicles is like changing lanes, with one major exception: For a period of time you will be riding in the opposing lane. Apply SIPDE here. Ask yourself why the vehicle you are following is driving so slowly. Is the driver searching for a house address? Will he make a sudden left turn? Check for driveways or intersections. Check thoroughly for approaching traffic. Determine if you have the space to safely pass. If you aren't sure, wait.

Check for oncoming traffic. Signal and check your mirrors and blind spot. Make no move unless it is legal and safe to do so. When it is safe to pass, move into the left lane and accelerate. Don't linger out there. Avoid crowding the vehicle you're passing. This minimizes the time that you'll be in the driver's blind spot and provides space to avoid possible hazards in your lane.

Complete SMOG-C by signalling and completing a return to your lane. Don't forget to cancel your signal.

Remember that passes must be completed within posted speed limits and only where permitted.

Proper Passing Technique

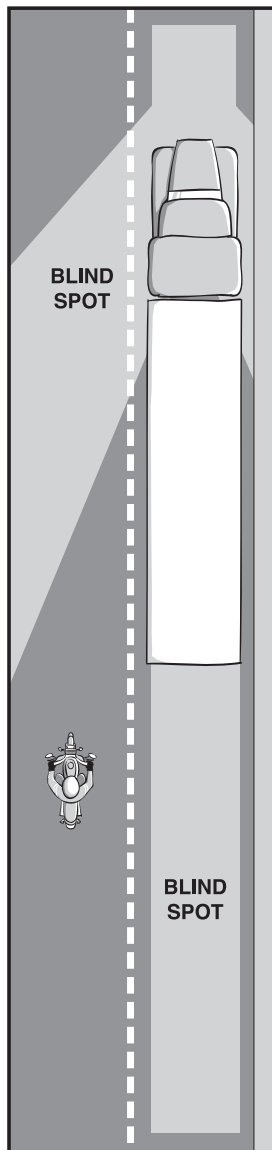


BLIND SPOTS

Avoid other vehicles' blind spots. Some drivers will turn their heads to check mirrors before changing lanes — that's your clue. Remember, if you can't see the driver in his rear-view mirror, the driver can't see you. Communicate!

AVOID RIDING IN THE BLIND SPOTS OF OTHER VEHICLES

STRATEGY



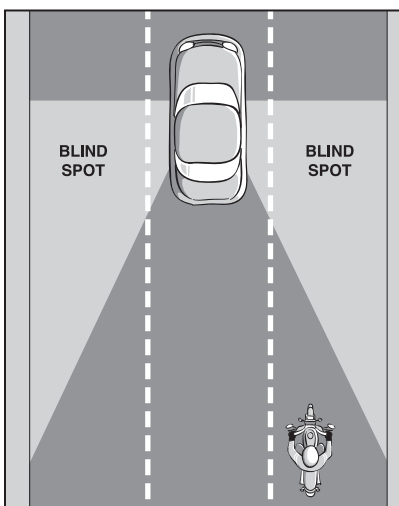
TAILGATING

Drivers that tailgate may not be able to stop as quickly as you and their presence is distracting. Don't become emotionally engaged with a tailgating driver. The distraction can affect your safety (remember most hazards approach from the front). Some options for dealing with tailgaters include:

- *Increase the space cushion in front of you in case you have to stop quickly.*
- *Make your traffic stops smooth and gradual. No surprises.*
- *Communicate with the tailgater by flashing your brake light.*
- *Hold your position and don't allow lane sharing.*
- *Turn or yield at the first opportunity to let the tailgater pass.*

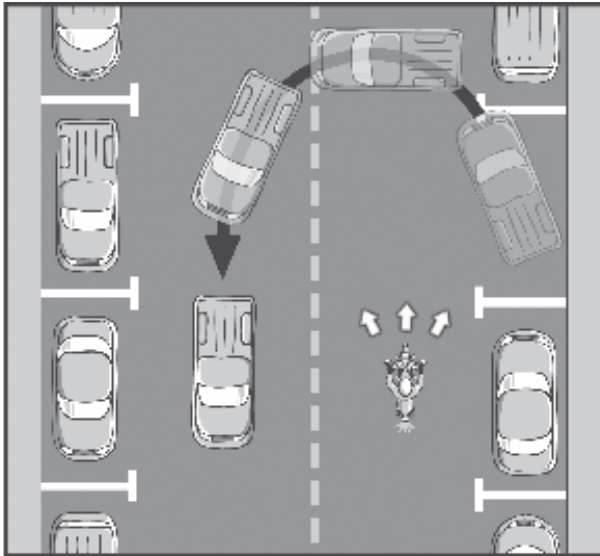
NIGHT RIDING

Night riding carries special challenges; visibility is reduced and sight distance is much more limited than during daytime. Riders can greatly enhance their visibility and safety through use of bright, reflective and retro-reflective materials, including use of retro-reflective vests. Wear untinted eye protection that is free of scratches and smudges, reduce speed and increase the distance at which you follow other vehicles, signal your intentions early and flash the brake light when stopping or waiting at intersections - this helps keep you from blending in with other vehicles. Riders should also take care not to override the headlight, a condition where stopping distance exceeds sight distance. Use other vehicles' headlights to see farther ahead and taillights for clues about curves, bumps or maneuvers. High beams should be used wisely, taking care not to blind other road users.



U-TURNS

Cars making U-turns are extremely dangerous. They can cut you off by blocking the entire roadway, leaving you with no escape route. Since you can't tell what the driver will do, slow down and get the driver's attention. Sound your horn and flash your high beam. Proceed with caution.



U-Turn Hazard



Review Questions

1. How does SIPDE help make you an expert rider?
2. Where do most multi-vehicle collisions occur?
3. What is a head check?
4. What can you do to reduce reaction time in hazardous situations?
5. How do you know if you are in a vehicle's blind spot?
6. How do you know if you are overriding your headlight?



City of Rocks Back Country Byway
Highway 82
Idaho Route 27 to Idaho Route 77



When asked to describe a perfect motorcycle road, most riders describe one with lots of curves. Unfortunately, the enjoyment of cornering snares many riders. Every year countless riders suffer self-inflicted injury from failure to negotiate curves — single vehicle crashes in which the rider is clearly at fault. In typical scenarios, riders either run off the road while cornering or drift into the opposing lane and collide head-on with approaching vehicles. Neither scenario is appealing and both are completely avoidable.

SKILLFUL CORNERING

The basic turning procedure — slow, look, roll, press — applies to all curves. The key to this process is slowing before the turn. Enter the turn at a speed that permits safe cornering and allows constant acceleration through the curve. Complete all braking and downshifting before the turn. Begin your throttle roll-on before you press to lean. This stabilizes the suspension, maximizes traction and makes the turn more comfortable and confidence-inspiring.

Many crash-involved riders enter turns too fast and are unable to complete the curve. This error applies to riders of all ages and riding styles. While excessive speed is usually listed on the crash report, the real cause of these crashes is failure to look far enough through the turn. Essentially, these riders override their sight distance and roll on the throttle before they know where the road leads or what hazards it may contain.

Use the strategy

READY,

AIM,

FIRE

for

**motorcycle
cornering**

READY

All braking, downshifting and positioning are completed. You are ready for the corner.

AIM

Turn your head and target your path of travel. Your mind will calculate the required lean angle, speed and lane position, but ONLY if you feed it the information. Turn your head to face your target!

FIRE

Begin rolling on the throttle smoothly and precisely before you lean into the curve. If you are forced to make mid-corner adjustments in path or throttle application, your technique is faulty. Complete your transitions earlier.

WHAT'S YOUR LINE?

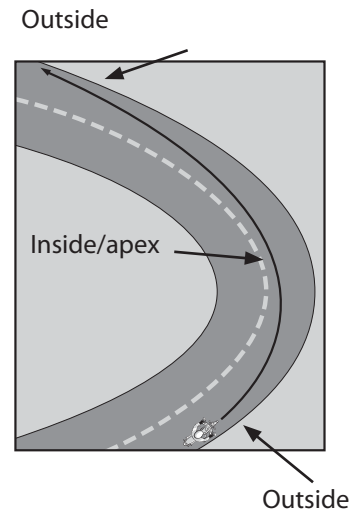
Smooth and skillful cornering requires selecting the best line, or path through corners. The best line often does not match the curve of the road. A good line allows you to:

- *Maximize visibility by positioning yourself in clear view of traffic ahead and behind you.*
- *Maximize your line-of-sight by positioning toward the outside of the curve where you can see the farthest.*
- *Select a safe path to avoid approaching traffic and roadway debris.*
- *Minimize traction required.*
- *Maximize cornering clearance.*
- *Do all of the above safely and skillfully, while remaining within your lane at all times.*

To select an appropriate line, you must determine where the turn's apex will be. The apex is the point where your path is closest to the inside of the curve. The apex is not necessarily in the center of the curve.

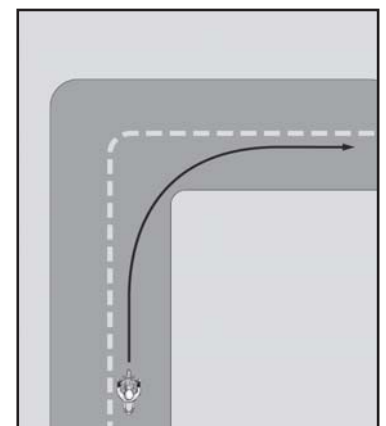
STANDARD CURVES

For most turns, an outside/inside/outside line is recommended. This increases your line-of-sight and creates a turn that is less sharp, thereby limiting cornering forces and preserving your ground clearance.



USE AN OUTSIDE/INSIDE/OUTSIDE
LINE

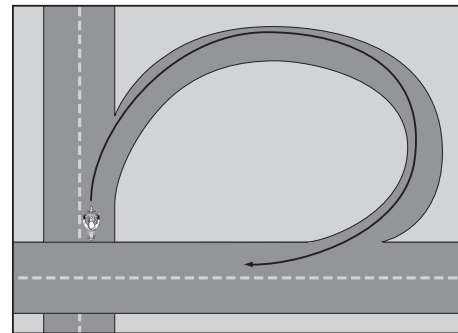
STRATEGY



Standard Curve

DECREASING RADIUS CURVES

For turns that bend out of sight or tighten, maintain a modest entry speed and hold a line to the outside of your lane until you can see the turn exit. When you have the critical information about radius, slope, path, etc., you can begin the outside/inside/outside line. This is known as a late apex turn.



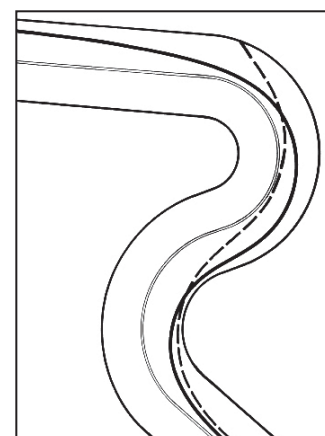
Decreasing Radius Curve

STRATEGY

USE AN OUTSIDE LINE AND HOLD YOUR SPEED UNTIL THE EXIT IS VISIBLE

LINKED CURVES

In linked turns, maintain an outside line until you can see the exit. Committing to an inside line too early may put you out of position for the next turn. Strive to make the exit line of the first curve match the entry line for the following curve. Minimize mid-turn corrections. Ride slowly and safely as you practice this technique.



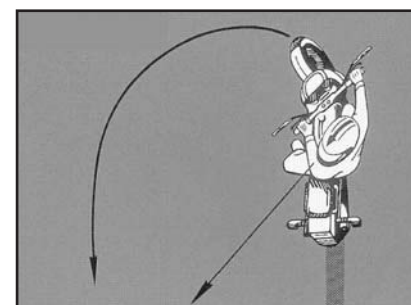
Linked Curves

STRATEGY

USE A LATE APEX TO SET UP FOR THE NEXT TURN

TIGHT TURNS

For tight turns, the cornering procedure is normally the same — slow, look, roll, press — however at slow speeds, you must turn the handlebar to steer the motorcycle once it has started to lean. Depending on the sharpness of the turn, you may want to use the friction zone to help control your speed and path. To help maintain balance in slow speed turns, counterweight by placing your weight on the outside peg and keeping your body upright. Look back over your shoulder to control your path.



Slow Speed Tight Turn

STRATEGY

COUNTERWEIGHT AND MAKE A BIG HEAD TURN

POTENTIAL PROBLEMS

SIPDE is critical for safe cornering. Aggressive scanning — looking as far as possible through the curve — helps you assess how tight the curve is and at what speed it can be ridden safely. Here are some other suggestions:

- *Limit your speed in turns. If you cannot see the exit, slow more before the turn.*
- *Ride within your personal ability and the limits of your motorcycle. Don't attempt to keep up with other, more experienced (or more foolish) riders.*
- *Discipline yourself to look as far through the turn as possible. Ride at a speed that gives you sight distance to stop or swerve.*
- *Always leave yourself an out if something unexpected obstructs your path, like gravel spills or debris.*
- *Listen to your body. If your heart is racing because you are scaring yourself, slow down!*
- *Don't stare at the roadside or at approaching vehicles. Remember, you go where you look! Turn your head to face through the turn.*
- *Avoid excessive lean angles. All motorcycles have ground clearance and traction limits. Dragging parts of your motorcycle can reduce traction and cause a crash.*
- *Anticipate surface hazards — reduce your speed and lean angle on slippery, loose surfaces.*
- *Avoid lane positions close to oncoming traffic and be aware of your lean angle. Don't corner with the motorcycle in your lane and your head in the opposing lane. Keep your entire body and motorcycle in your lane.*

Review Questions

1. What is the leading cause of single-vehicle crashes?
2. At what point should you turn toward the apex?
3. How do you link turns smoothly?
4. When should you turn your head for cornering?



Gold Rush Historic Byway
 Begins at the junction of US 12 and Idaho Route 11
 on the Clearwater River at Greer



Stopping a motorcycle quickly and safely is a skill that takes time to develop and continual practice to keep sharp. Failure to apply the brakes properly is a leading cause of motorcycle crashes.

Research shows that riders typically under-brake at the front and over-brake at the rear, or panic at the controls, crashing to the pavement even before reaching the hazard. This errant maneuver is commonly known as “laying the bike down.” This is not a braking or obstacle avoidance maneuver — it’s a crash. Once the motorcycle is down, all control is lost and the rider is just another flying object. Braking and control are available only when the motorcycle is on its wheels, not when it’s on its side or tumbling.

BRAKING SYSTEMS

Modern motorcycles are equipped with excellent braking systems and stop very quickly with a skilled rider at the controls. Some models are equipped with braking systems that apply braking force, both front and rear, when the rear brake is activated, or proportional braking forces to both brakes when either brake is applied.

Other bikes are equipped with Anti-Lock Braking Systems (ABS), which prevent wheel lock-up in a maximum straight-line stop. Some models provide a combination of linked braking and ABS. Check your owner’s manual for information about your motorcycle’s braking system.

MAXIMUM STRAIGHT-LINE STOPS

Maximum straight-line braking is accomplished by fully applying front and rear brakes without locking either wheel. To do this:

**Maximum
 Straight
 Line
 Stops**

Squeeze the front brake smoothly, firmly and with progressively more force. Do not grab the brake lever or use abrupt pressure.

As the motorcycle’s weight transfers forward, more traction becomes available at the front wheel, so the front brake can be applied harder after braking begins.

Keep your knees against the tank and your eyes up, looking well ahead. This helps you stop the motorcycle in a straight line.

Apply light-to-lighter pressure to the rear brake pedal to prevent a rear wheel skid. As weight transfers forward less traction is available at the rear. Use less rear brake pressure.

ANTI-LOCK BRAKING SYSTEMS (ABS)

The benefit of ABS cannot be overstated. This technology prevents wheel lock-up in straight-line stops. To use it, apply maximum pressure on both the front and rear brake. Remember that ABS is only designed to apply full braking force in a straight line. It may not be effective when the motorcycle is leaning.

HANDLING SKIDS

The best way to handle a skid is to avoid causing one in the first place. But we all make mistakes. Here's how to correct the problem:

FRONT-WHEEL SKIDS

Under braking force, a motorcycle's weight transfers forward. More weight forward equals more traction available for braking. However, too much braking force applied too quickly (before this weight transfer occurs) can result in front-wheel lock-up. This is known as 'grabbing' the front brake. Front-wheel skids result in immediate loss of steering control and balance. Failure to fully release the brake lever immediately can result in a crash. The same loss of control can occur from applying the front brake too much as it can from applying it too fast.

If the front wheel locks, release the front brake immediately and completely. Reapply the brake smoothly and properly. Note - ABS is designed to prevent front wheel skids.

REAR-WHEEL SKIDS

Too often when riders are faced with an emergency situation, they over-brake and lock the rear wheel. A skidding rear tire is a dangerous condition that can result in a violent crash and serious injury or death.

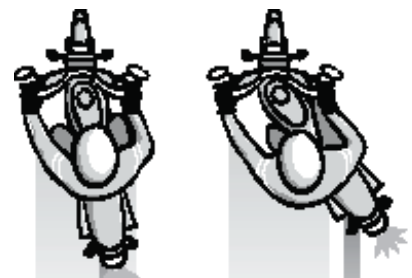
A rear-wheel lockup is caused by too much rear brake pressure. As soon as the rear wheel locks, your ability to change direction is lost. To regain that control, the brake must be released. However, if the rear wheel has fishtailed out of alignment with the front, there is a risk of a high side crash. This occurs when the wheels are out of alignment and a locked rear wheel is released. The motorcycle can violently and abruptly snap upright and tumble, throwing the rider into the air ahead of the motorcycle's path. Even slight misalignment can result in a high-side crash. The farther out of alignment the rear wheel becomes, the greater the risk of a high side.

If the rear wheel locks, immediately release the rear brake. Reapply the brake smoothly and properly. Note - ABS is designed to prevent rear wheel skids.

Practice quick stops often and don't lock either brake. Keep your skills sharp for the unexpected.



Proper braking. Neither wheel is locked and motorcycle is in alignment.



Excessive rear brake pressure locks rear wheel. Motorcycle is out of alignment and control.

STOPPING QUICKLY IN CURVES

Traction is the friction between the tires and the road surface. Like money, traction is a limited resource and we always need some in reserve. During straight-line braking, most of your motorcycle's traction is available for braking. In corners, some of the available traction holds the bike in the turn and is not available for braking. The greater the lean, the more traction is used for cornering. When stopping quickly in a turn, remember that the amount of traction available for braking is limited by the traction that is being used to grip the corner. Use the following techniques to stop quickly and safely in a corner:

Two Ways to Stop Quickly and Safely in a Curve

STRAIGHTEN THEN BRAKE

Straighten the motorcycle first by pressing the "outside" handgrip.

Once the motorcycle is upright, apply maximum straight-line braking force.

Remember to square the bars before coming to a stop. This centers the steering and helps you achieve a balanced stop. Leaning motorcycles become very heavy at stops. Square the bars!

BRAKING IN A LEAN

If road or traffic conditions do not allow you to straighten your path of travel, use your brakes smoothly and gradually.

As you straighten the motorcycle, more traction is available for braking. This is a delicate balance — the more upright the bike is, the more braking force is available.

Keep your eyes on your intended path, not on the obstacle.

SWERVING

Skilled motorcyclists can swerve away from danger in less space than it takes to stop. It is critical to develop good swerving skills and practice these skills to keep them sharp.

A swerve is two consecutive countersteers; one forward press on the grip to avoid the obstacle, held long enough to clear the obstacle, followed by a forward press on the opposite grip to regain a straight path after the obstacle is cleared. Smooth, firm and constant pressure is required to make the motorcycle lean quickly and precisely. Here's how a swerve is accomplished:

1. *Look to your escape path and press firmly on the handgrip to initiate the swerve. Remember: press right, go right; press left, go left.*
2. *Hold the press until the motorcycle has cleared the hazard.*
3. *Press firmly on the opposite grip to straighten the motorcycle.*
4. *Keep your body upright and allow the motorcycle to move independently of you. The motorcycle will react more quickly that way.*
5. *Keep your eyes on your escape path (not the obstacle!) and your knees against the tank.*

Caution: Swerving consumes a lot of traction leaving little in reserve for braking. Therefore, never attempt to brake during a swerve. Even the slightest braking force can induce an immediate and forceful crash. Hold a steady throttle while swerving. If braking is required, brake *before* or *after* swerving, never during!

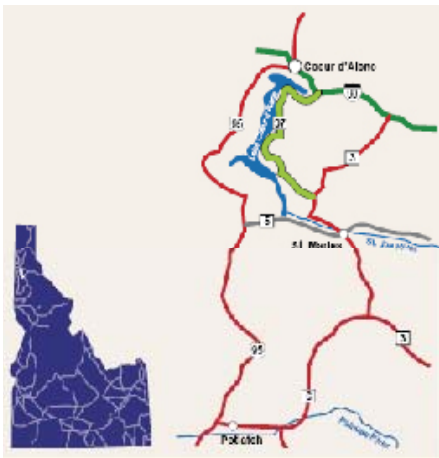
Practice swerving often where it is safe to do so. Hone this skill until you make the correct moves automatically — every time.

ALWAYS SEPARATE BRAKING AND
SWERVING

STRATEGY

Review Questions

1. How is the front brake applied to stop quickly in a straight line?
2. How is the rear brake applied to stop quickly in a straight line?
3. What is the quickest way to stop in a curve?
4. When braking in a lean, what is important to remember?
5. What is countersteering?
6. What should you always avoid while swerving?



Lake Coeur d'Alene Scenic Byway
Begins at the Junction of Interstate 90 and Idaho
Route 97 south to Idaho Route 3



Will Rogers once said:

“Good judgment comes from bad experience, and a lot of that comes from bad judgment”

This section examines the special situations that motorcyclists face and provides knowledge by which to make good judgments.

OBSTACLE SURMOUNTING

A good SIPDE process will do more to avoid obstacles than anything else. However, there are those occasions when obstacles such as potholes, speed bumps or highway debris cannot be avoided and must be surmounted. By following the steps below you can safely surmount many obstacles.

1. Consider whether it's possible to surmount the object, and forecast your path of travel. Will crossing or avoiding the obstacle place you in greater danger?
2. Approach the object as close to a 90-degree angle as possible.
3. Slow down as you approach, and rise off the seat, keeping your knees bent inward against the fuel tank.
4. Grip the handlebars firmly and look ahead.
5. Just prior to contact, slightly roll on the throttle. This extends the front suspension and shifts your weight back.
6. After contact, immediately roll off the throttle. This prevents the rear tire from spinning on the obstacle.
7. Remain standing throughout the maneuver.

ROADWAY CONDITIONS

Changes in roadway conditions are part of the challenge of motorcycling. You have to be ready for anything. Use SIPDE to identify roadway problems early, giving you time to plan for success. Be especially vigilant for changes in color and texture — your clues that traction may change.

PREDICT CHANGES IN TRACTION BY SCANNING FOR
CHANGES IN ROADWAY COLOR AND TEXTURE

STRATEGY

RAIN-SOAKED SURFACES

Rain-soaked roads can be safe to ride, but danger is greatest during the first rainfall following a dry period. Oil, dirt and other debris accumulate in and upon the road surface. Rain mixes with that composition and creates a slippery film, but with time this film washes away and traction improves. Avoid riding during the first part of a rainstorm when conditions are the most slippery. Also:

1. *Ride in the tracks of other vehicles if conditions permit to help avoid hydroplaning.*
2. *Reduce speed and lean angle in corners and on especially slippery surfaces. Conserve your traction.*
3. *Increase your following distance.*
4. *Avoid pooled water and highway ruts caused by excessive pavement wear. Motorcycles can lose traction due to hydroplaning (water build-up under the tread). Ride where traction is best.*
5. *Avoid riding during an electrical storm. Why take the chance?*
6. *Watch for shiny surfaces. They can be very slick. Examples are:*
 - *Metal covers and plates*
 - *Painted or plastic roadway markings*
 - *Bridge gratings*
 - *Railroad tracks and rubberized crossings*
 - *Wet leaves*

Shiny surfaces can be slick. Some examples are:

- **Metal covers and plates**
- **Painted or plastic roadway markings**
- **Bridge gratings**
- **Railroad tracks and rubberized crossings**
- **Wet leaves**

RAIN GROOVES

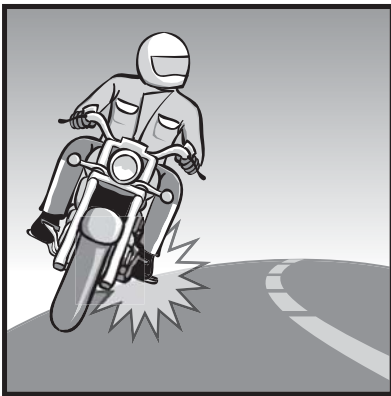
Rain grooves are cut into the pavement parallel to the path of travel. They channel water away from the surface but do not affect traction. However, rain grooves can cause the motorcycle to wiggle. Do not fight the wiggle; instead, keep a firm but relaxed grip on the hand grips. Maintain a steady speed and keep your eyes up.

BRIDGE GRATINGS

Bridge gratings are slippery steel grid surfaces that cause the motorcycle to weave or wander. This situation is not a hazard when handled properly. Slow down before reaching the grating, then maintain a steady speed. Keep your eyes up, looking where you want to go. Again, keep a firm but relaxed grip on the handgrips and avoid abrupt maneuvers. Ride evenly and smoothly.

LOOSE SURFACES AND DEBRIS

Paved surfaces may be littered with sand, gravel, cinders, rocks and leaves, as well as fuel, oil and coolant. Watch for telltale changes in road surface color or texture. Traction is compromised in these situations, so avoid abrupt acceleration or braking, and minimize lean. Ride straight across, keeping a steady throttle.



GRAVEL ROADS

Gravel roads decrease traction. Ride where the traction is best, usually in the ruts created by other vehicles. Don't change your direction or speed abruptly, and limit your lean angle. Keep your eyes up, looking where you want to go. Roads that have been 'chip sealed' often have loose gravel and can be much like a gravel road.

CRACK SEALANT

Cracks in highway road surfaces are usually sealed with a black, tar-like substance. In warm weather, this material becomes gummy and slick, causing motorcycles to slip and wiggle when leaning. Recognize this change in pavement color and avoid it if possible. If not, reduce speed and minimize lean.

STEEL PLATES

Steel plates are often used to cover excavations. These plates are very slippery, especially when wet. Ride straight across them, avoiding abrupt maneuvers and lean angle.

CROWNED ROADS

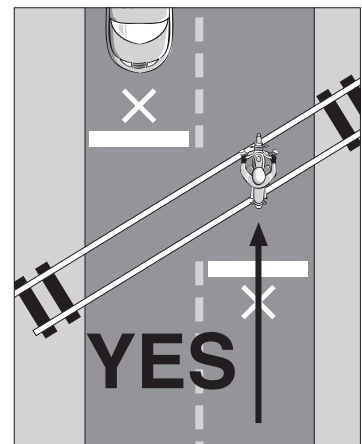
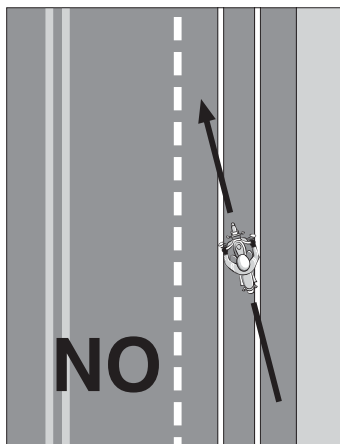
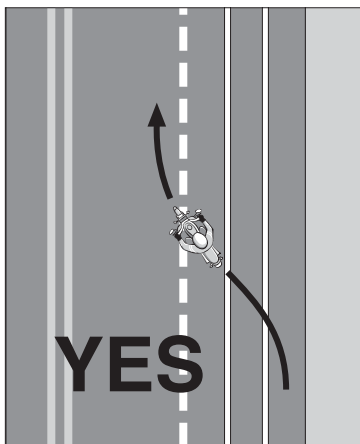
Road surfaces are often crowned to improve water run-off. Use SIPDE for early warning that cornering clearance is reduced. Limit your lean angle when turning left.

**Limit your lean
angle when
turning left on
crowned roads!**

RAILROAD AND TROLLEY TRACKS, PAVEMENT SEAMS, CATTLE GUARDS

Railroad tracks usually pose no problem if you ride straight across them. If the tracks cross your path at a diagonal, try to approach them at a 45 degree angle, but be careful to stay in your lane. To cross trolley tracks, pavement seams, and cattle guards that run parallel to your path of travel, swing away from the tracks or seams to square your approach to at least 45 degrees. Do not cross at a shallow angle. Otherwise the tracks or seams can catch your front tire and cause a crash.

Crossing Pavement Seams and Tracks



POTHOLES, BUMPS AND CRACKS

Treat potholes, bumps and cracks as you would any other obstacle. If you can't go around them, cross at a 90-degree angle, maintain a steady speed and rise off the seat as you cross.

EXTREMELY SLIPPERY SURFACES

Ice, snow, mud and moss can make road surfaces extremely slippery. Even road markings can be slippery. Be alert to the possibility of these hazards, such as the onset of bad weather at higher elevations, areas prone to mudslides, and damp, shady patches of road can have black ice, moss or algae.

The SIPDE process will keep you from being surprised by such hazards. If you must ride through them, use the throttle smoothly and carefully. Squeeze the clutch to eliminate the possibility of engine braking. Make no sudden or abrupt moves. Ride straight up and in the tracks of other vehicles. Be especially careful around other vehicles. The roads are slick for them, too. Remember, the key to handling poor traction situations is smooth control inputs.

ANIMALS

Animals on and alongside the roadway can pose a serious hazard to motorcyclists. How you deal with them depends on road conditions and the animal's size.

SMALL ANIMALS

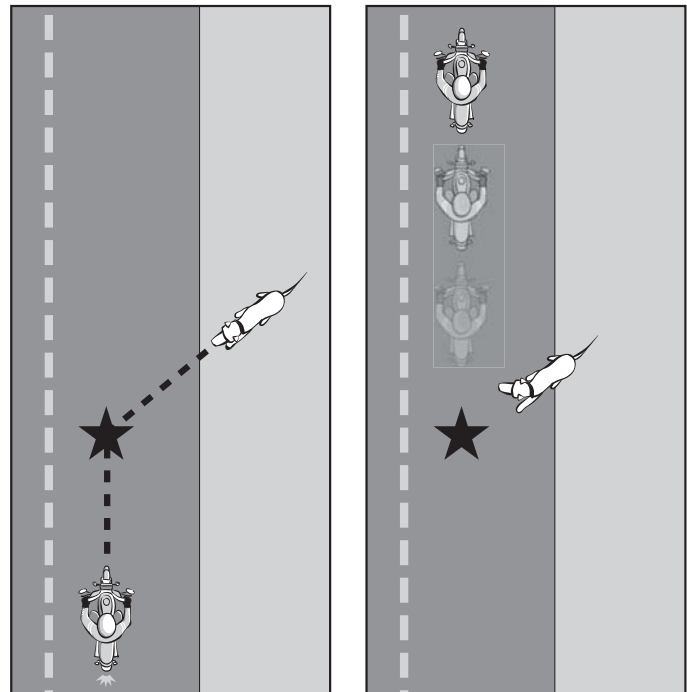
Animals like squirrels and rabbits may dart into your path. Don't increase your risk by attempting to avoid a collision. If it's unsafe for you to swerve or brake, prepare to surmount the obstacle.

ANIMALS THAT CHASE

Some dogs chase vehicles, and motorcycles are no exception. Dogs use SIPDE to pick a point of interception. Defeat that strategy by slowing, downshifting and then accelerating out of the dog's reach. Don't kick at the dog. Keep your eyes up.

Chasing Dogs

- SLOW DOWN**
- DOWNSHIFT**
- THEN ACCELERATE
OUT OF DOG'S REACH**



ANIMALS THAT ROAM

Larger animals like deer and elk create a real hazard. They are unpredictable and hitting one is like colliding with a truck. Use SIPDE aggressively in areas where deer or elk may be present. Remember, these are herd animals. If you see one, expect more. If you come upon one of these animals, slow down as much as you can. The safest passing speed is walking speed. Expect such animals to dart into your path. Be prepared!

WIND

An unexpected blast of wind can push a motorcycle right off the road. It's important to understand where gusts can occur and be prepared to counteract the wind with proper riding technique.

Trucks, motor homes and other large vehicles push a lot of air ahead and to the sides. Avoid the windblast of these vehicles by moving away from them as they approach. When passing a large vehicle, stay far from its side to avoid the draft effect that may pull you toward it.

While riding, you might encounter steady winds or strong and irregular gusts. The strategy is the same: Lean into the wind by applying forward pressure on the handgrip. The stronger the side wind, the more forward pressure must be applied. Use SIPDE to identify places where the wind may be blocked, such as road cuts and freeway underpasses. As the wind is blocked, you'll need to lighten the pressure on the handgrip. Also use SIPDE to identify bridges and overpasses where you'll be exposed to the full force of the wind...in other words, be prepared. Adjust your lane position to allow for space to move side-to-side within your lane to compensate for wind gusts.

For strong and irregular blasts, be ready! Maximize the space cushion around you. Be prepared to take immediate action to counter the blast. If the wind becomes too erratic and dangerous, find a safe place to park until conditions improve.

PARKING

PARALLEL PARKING SPACES

Back into the space at an adequate angle to keep the motorcycle out of the traffic flow. Place the rear tire against the curb. Ensure this maneuver is legal where you park.

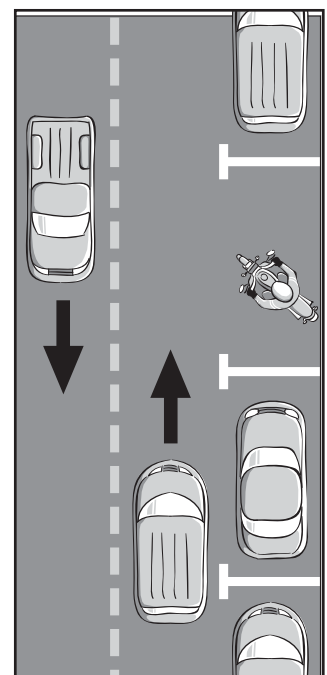
PULL-IN SPACES

The space is yours. Center your motorcycle in the space to discourage space sharing.

SECURITY

Secure the motorcycle with the handlebar turned toward the sidestand. For greater stability and security, lock the forks. Leave the motorcycle in first gear to prevent rolling. Caution: When asphalt is hot, a motorcycle sidestand can sink into it. To prevent sinking, place a rigid object like a flattened soda can under the sidestand.

Parallel Parking



TRAFFIC-ACTUATED SIGNAL LIGHTS

Most traffic-actuated signals are triggered by vehicle magnetic mass, and because motorcycles lack mass these sensors don't always detect them. Position your motorcycle directly over a sensor strip. Many traffic signals have yellow squares on the pavement to help you know where the sensors are located. If that doesn't work, contact the agency responsible for the intersection. Explain the situation and ask for the sensor to be adjusted.

Review Questions

1. Where should you look when crossing obstacles?
2. What approach angle is recommended when crossing obstacles?
3. What indicates a potential change in roadway traction?
4. How should you ride across low-traction surfaces?
5. What should you do if you come upon deer alongside the roadway?
6. What should you do if you suspect your sidestand will sink into the surface?

Responsible riders are alert, aware, skilled and savvy because they know that motorcycling requires keen attention and constant readiness. Any physical or mental condition that reduces your attentiveness, fogs your judgment or interferes with your riding abilities constitutes a safety impairment. For a motorcyclist, riding when physically and/or mentally impaired for any reason, is courting disaster.

While most riders understand that alcohol and drug use is hazardous, it's important to recognize that fatigue, hunger, exposure to the elements and everyday worries can also crowd your thinking and distract your attention from the ride. Evaluating your personal state of readiness is the first step in reducing the risk of riding.

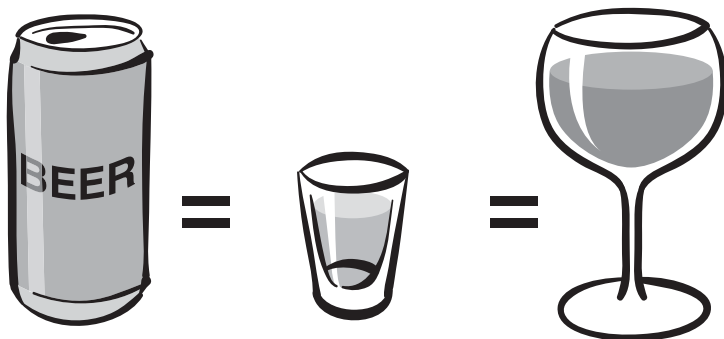
ALCOHOL AND MOTORCYCLING -- A LETHAL MIX

Alcohol is a leading cause of death among motorcyclists. Every year, 35-40% of the riders killed in motorcycle crashes have been drinking. Many of these riders' Blood Alcohol Concentration (BAC) levels are below legal limits, but obviously their judgment and abilities were impaired. Impairment begins with the first drink. The question is, how much impairment are you willing to accept?

RECOGNIZE WHEN YOU ARE IMPAIRED. HOW MUCH IMPAIRMENT ARE YOU WILLING TO ACCEPT?

EFFECTS OF ALCOHOL

Alcohol is a depressant — it slows your bodily functions. Because it is absorbed into the bloodstream quickly, the effects begin to appear almost immediately as errors in judgment, impaired vision, slowed reactions and reduced coordination.



Bear Lake-Caribou Scenic Byway
 Begins at Utah stateline, US 89 north to US 30,
 North and east to Idaho 34, north to Wyoming state line



STRATEGY

The alcoholic contents of a can of beer, a glass of wine and a shot of whiskey are about the same.

MEASURES OF IMPAIRMENT

Here are a few indicators of alcohol impairment that law enforcement officers look for during **Standardized Field Sobriety Tests**:

Impaired Judgment

Impaired judgment is evidenced by a willingness to take risks. Impaired riders typically fail to recognize this behavior. They may think they ride better after a few drinks.

Divided Attention

Field Sobriety Tests measure a rider's ability to attend to several mental and physical tasks at the same time. The ability to divide attention is impaired in riders under the influence of alcohol and/or other drugs. As a result, they tend to focus on only a few aspects of riding and disregard others. For example, they may ignore a traffic signal and focus instead on speed control.

Impaired Vision

Nystagmus, or involuntary jerking of the small muscles of the eyes, is a readily noticeable sign of possible alcohol or drug impairment. The effect of nystagmus on a motorcyclist is critical, as these impaired muscles are the ones that control the rider's ability to focus and adjust to changing light conditions. Individuals experiencing nystagmus are unaware that their eyes are jerking and are unable to control it.

Blood Alcohol Concentration

Many factors must be considered when determining BAC, including physical size, gender, the amount of alcohol consumed and the number of hours spent drinking. In most states, a person with a blood-alcohol concentration (BAC) of .08% is considered legally intoxicated. Breath, blood and/or urine tests confirm BAC. Under Idaho law you are considered to be driving under the influence if your BAC is .02 or more if you are under 21 years of age; .08 or more if you are 21 or older.

■■■■■ SIPDE UNDER SIEGE

NOTICE WHAT ALCOHOL AND/OR DRUG INFLUENCE DOES TO THE SIPDE PROCESS:

- **Scan** Clear vision is impaired. Your ability to detect moving objects and to see clearly at night is impaired. Critical information may be missed. Your ability to divide attention between scanning and operating the motorcycle is affected.
- **Identify** As impairment increases, more attention is diverted to operating the controls. Key visual clues are missed. Hazards aren't identified.
- **Predict** Judgment and the ability to process information are impaired. Short-term memory is impaired.
- **Decide** The ability to divide attention, analyze risk and make decisions is flawed.
- **Execute** The ability to react properly and precisely is affected. Reaction time, coordination and balance are compromised.

ADDING DRUGS MAKES IT WORSE

Alcohol combined with prescription drugs, over-the counter remedies or controlled substances can be a lethal mix. These substances can greatly increase the dulling effects of alcohol.

Riding impaired has the effect of lowering a shade between your eyes and your brain. Critical information is missed, skills and judgment are dulled, but your confidence is high. Mixing other drugs, controlled substances or inhalants makes it worse — a deadly combination!

THERE IS A CURE

Impairment begins with the first drink, so exercise good judgment before you drink. Learn from the mistakes of others and plan ahead:

- *Separate drinking and riding. If you intend to drink alcohol or even suspect that it will be served, don't ride.*
- *Have an alternate plan for getting home in case you exceed your personal limits.*

DISTURBING DISTRACTIONS

Riding a motorcycle requires your complete attention. Anger, stress, trouble and/or pain are just a few disturbing distractions. While you can't avoid these troubles in day-to-day activities, you must put them aside when you swing your leg over a motorcycle. Motorcycling is a wonderful antidote for the common day. Leave your troubles behind!

HELP YOUR FRIENDS

The last thing anyone wants is to see a friend crash. Intervene when you suspect one of your friends is too impaired to ride, but has the intention of doing so anyway.

- *Arrange a safe ride home.*
- *Secure the motorcycle. Riders are often unwilling to leave their motorcycle. Find a secure location for your friend's bike.*
- *Get others to help. The more support you have, the better your chances of success.*
- *Stop serving if you are the host.*
- *Use any excuse to keep your friend from getting on the motorcycle. Serve food or non-alcoholic drinks to pass the time. Let your friend sleep over at your place.*
- *If all else fails, hide the keys.*

Do something! Just don't let your friend ride away!

OTHER IMPAIRMENTS

Alcohol and drugs are not the only things that impair your mental and physical abilities. Other factors also affect your ability to ride safely:

Fatigue/Drowsiness

Recognize your state of *Rider Readiness*. When you are tired, or if battling the elements has diminished your energy reserves and attention, take a break or stop for the day. Don't ride when your body and mind are so dulled that it is difficult to process information and respond to hazards.

Temperature Extremes

Exposure to prolonged and/or extreme heat or cold saps your energy and dulls your attention. Rain, gusting winds and other adverse conditions also increase stress and fatigue. Riding safely means enjoying the journey. Don't let pursuit of your destination prevent you from stopping whenever you need to rest and recover.

Overriding Your Abilities

Don't let ego and emotion impair your judgment and safety. The street is no place for competition, showing off or aggressive riding. If that type of riding interests you, head for the racetrack.

Review Questions

1. How do daily events affect Rider Readiness?
2. What are three examples of impairment?
3. What percentage of rider fatalities are alcohol related?
4. How does riding under the influence affect the SIPDE process?
5. What are some ways of intervening to prevent a friend from driving under the influence?



Ponderosa Pine Scenic Byway
From Boise Idaho Route 21 to Stanley



CARRYING PASSENGERS

Adding passengers and cargo opens up a whole new dimension of your motorcycling experience. But remember that this will affect the motorcycle's handling. The bike will feel heavier at all speeds. Acceleration will be reduced and stopping distances will lengthen. Stability and cornering clearance may be affected in turns.

Here are some tips to make the trip safe and enjoyable when carrying passengers:

1. *First, do not carry passengers unless you are confident in your abilities and judgments. Practice away from traffic.*
2. *Adjust the suspension and tire pressure according to the manufacturer's recommendations found in your owner's manual.*
3. *Never carry a passenger in front of you. This is dangerous and illegal in many jurisdictions.*
4. *Your passenger must be able to reach the footrests and should be able to look over your shoulder.*
5. *Be sure your passenger is wearing proper protective gear and that shoe laces are tucked in.*
6. *Show your passenger how to mount so that he or she can avoid the hot exhaust pipes. Have the bike started and ready to go before the passenger mounts. Place both feet on the ground and grip the front brake. This stabilizes the motorcycle for the passenger to mount and dismount.*

PASSENGER RULES FOR SAFETY AND SECURITY



Brief your passenger before the first ride. Ask your passenger to follow these rules for safety and security:

Notify the operator when you are ready to mount or dismount and wait for approval. This prevents surprise shifts of balance.

Hold the operator's waist or hips. This braces the passenger for acceleration or braking. Keep both feet on the footrests at all times.

Keep hands and feet away from moving and hot parts.

Look over the rider's shoulder in the direction of the turn.

Avoid sudden moves that might affect stability.

If the rider rises off the seat, so too should the passenger.

Enjoy the ride!

CARRYING LOADS

When carrying cargo, consider the weight, location and security.

WEIGHT

Check your owner's manual for the maximum load limits for your motorcycle. Do not exceed the total weight limitation. Saddlebags, tank bags, tail bags and luggage racks have individual weight limitations too. Check for those weight limits in the owner's manual, the accessory literature, or inside the accessory itself and don't exceed those limits. Check your owner's manual for recommendations on adjusting the suspension and tire pressure to accommodate the added weight.

LOCATION

Balance is important in riding, and equally important in loading a motorcycle. Keep the load low and concentrate it toward the center of the motorcycle. If you are using saddlebags, keep the weight equally distributed side-to-side. Try to place heavier items ahead of the rear axle. Use the luggage rack, tail bag or trunk for lightweight baggage. Too much weight mounted high and behind the rear axle can drastically affect steering and stability. Never use the front forks, fenders or handlebars for carrying loads as it can obstruct steering and cause instability. Make sure that tank bags don't interfere with handlebar movement or access to the controls.

SECURITY

Secure your load! Make sure the load can't shift while you're riding. Purchase accessory racks and luggage that are designed for your motorcycle. When attaching loads, use motorcycle cargo nets or web straps with multiple mounting points. Make sure each strap is secured across the load. Take care that nothing blocks the lights or interferes with the steering, suspension or restricts your view in the mirrors. Tuck in all loose ends and anything that could get caught in the wheels. Keep cargo away from the mufflers. Check the load every time you stop to make sure it hasn't come loose or shifted.

Review Questions

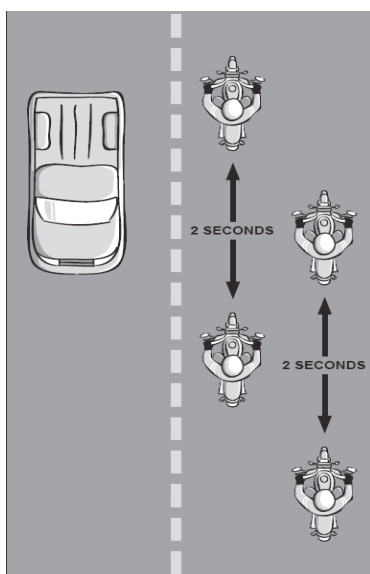
1. When should you consider carrying a passenger?
2. How should the passenger be dressed?
3. What instructions do you give to your passenger and when?
4. Where do you find the maximum load capacity for your motorcycle?
5. What should you adjust if you are carrying loads?
6. Where should you carry heavier items?



Wildlife Canyon Scenic Byway
Travels along the Banks/Lowman Road and can
be accessed by Scenic Byways 55 or 21.



Staggered Formation



Riding with friends is an enjoyable way to share the journey. If you choose to ride with others, do so in a way that is safe for everyone. Follow these simple rules:

KEEP THE GROUP SMALL

Limit your group to four or five riders. If you have more riders, split into smaller groups. Riders at the rear of large groups can get separated from the main group by traffic or lights and feel an urgency to catch up. Eliminate this potential by limiting your group size.

SIGNAL EARLY AND OFTEN

Communication and planning are important factors in keeping a group together. Before starting out, the leader should show the group the signals they will use to communicate. The leader should scan ahead for changes and signal early so that everyone has advance warning. Everyone should follow suit by signaling to the following riders. Consider the entire group when making lane changes or passing. See Appendix B.

PUT BEGINNERS UP FRONT

Put newer riders right behind the leader. If you put new riders in the rear, they may have to exceed their abilities to keep up. Not smart! Encourage everyone to ride within their limits.

KNOW THE ROUTE

Everyone should know the route. Make multiple maps or route sheets in case the group gets separated.

DON'T LOSE THE TAIL

Be responsible for the rider directly behind you. When making a turn, passing through a signal or changing lanes, check to make sure that riders following are still with you. If not, slow down and wait. Also, the rider ahead should notice that you are missing and wait. This strategy helps keep the group together.

KEEP YOUR DISTANCE

Traveling as a small, tight group increases your visibility and reduces the likelihood of becoming separated. It also takes up less space on the highway. Here's how to maintain close ranks while keeping a safe following distance.

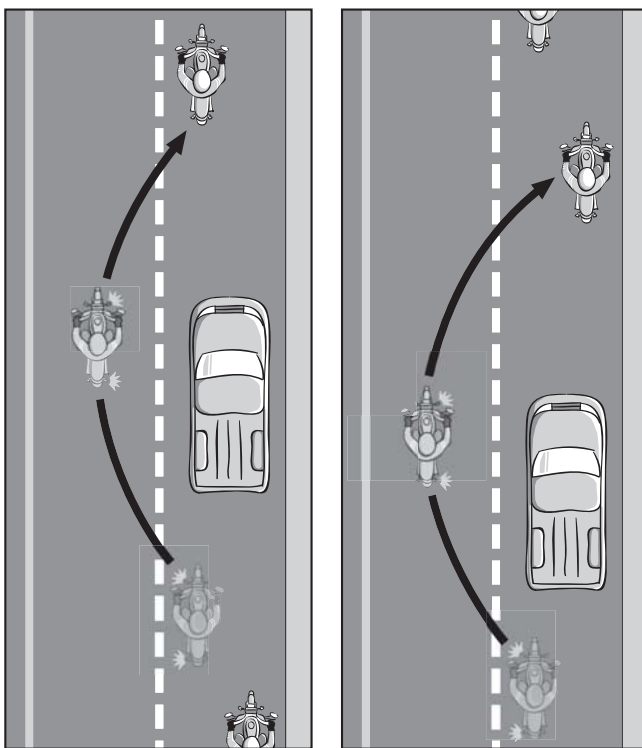
Use a staggered formation. This allows the group to remain compact while maintaining a space cushion and escape route. Maintain a two-second following distance behind the rider directly ahead of you. At stops, pair up. When the wheels start rolling, return to the staggered formation. Avoid riding in pairs. This compromises your space cushion and escape route.

WHEN TO BREAK STAGGERED FORMATION

The lead rider should take responsibility for signaling changes in formation. Ride in single file and keep a safe 2-second following distance whenever you:

- *Pass other vehicles*
- *Enter or exit a highway*
- *Approach a corner*
- *Encounter limited visibility*

Passing in Formation



Riders in staggered formation should pass one at a time. Pass only when it is safe to do so.

The lead passes when a safe opening exists. The lead pulls back into correct formation position to open up space for rider number two.

The second rider moves from the right position to the left (lead) position and completes their pass, pulling into staggered formation behind the lead.

The rest of the group follows this routine. Pass from the left position and return to the proper formation.

The lead rider returns to cruising speed when the last rider has completed the pass.

Always preserve a safe following distance. Never compromise safety by passing from a position that doesn't afford the best line of sight. Take your time.

Review Questions

1. How do you calculate the following distance in a staggered formation?
2. When should you move to single file?
3. Where in the formation should the least experienced rider be?



Teton Scenic Byway
Begins on Idaho 31 at Swan Valley,
Northeast to Idaho 33 to Idaho 32



Mechanical failures often result in emergencies. Quickly assessing the problem will help you respond properly.

TIRE FAILURE

Modern tubeless tires rarely blow out, but it does happen. As soon as you detect an unfamiliar handling characteristic, slow down. The bike will wobble and/or wander. If the flat is on the front, the steering will feel heavy. If on the back, the entire bike will weave and feel unstable. A typical rider response is to look down at the motorcycle as if to say, "What's up?" Instead, keep your eyes on the road and use these techniques:

1. *Hold the grips firmly and ease off the throttle. Don't fight the wobble.*
2. *Avoid applying the brakes unless you have to. If you have to brake, use the brakes on the wheel with the good tire. Remember that linked or integrated braking systems may not allow this.*
3. *Avoid downshifting.*
4. *Squeeze the clutch and keep it in.*
5. *Shift your weight away from the affected area. If the front tire is flat, move back. If the rear is flat, move forward.*
6. *Keep your eyes up and find a safe place to pull over.*

A common cause of tire failure is under-inflation. Check your tires frequently and keep them inflated to the manufacturer's specifications.

BROKEN CLUTCH CABLE

Some bikes have cables linking the clutch lever to the clutch and occasionally these cables break. Hydraulic clutches can also fail. If this occurs, the clutch will remain completely engaged. It is possible to shift without the clutch. Just match engine speed to road speed and complete the shift quickly. Ride to a place where assistance is available. Remember that once you stop, it is very difficult to get going again. When coming to a stop, try to find neutral. Shut off the motorcycle with the engine cut-off switch.

WOBBLE/WEAVE

A weave or wobble is your motorcycle's way of telling you something's wrong. A wobble is felt in the handlebars as a possibly strong and rapid shaking. A weave, on the other hand, is a slow oscillation in the rear of the motorcycle. In either case, you may have a serious problem. Slow down immediately and follow these tips:

- *Keep a firm grip on the handlebar and don't fight the wobble.*
- *Eeeease off the throttle.*
- *Move your weight forward and as low as possible over the tank.*
- *Avoid applying the brakes unless you have to. Braking can amplify the wobble or weave.*
- *Do not accelerate to try and stop the wobble. This will only makes it worse.*
- *Worn or improperly inflated tires, loose or worn bearings and/or too much weight in the wrong location can cause a wobble or weave. Identify the problem and take your motorcycle to a qualified technician for repairs.*

Once you experience a wobble/weave, it can occur again at any time until you make the necessary repairs.

TAKE CARE OF YOUR MOTORCYCLE AND IT
WILL TAKE CARE OF YOU

STRATEGY

Review Questions

1. What is a primary cause of tire failure?
2. Where do you find information about proper tire pressure?
3. How can you shift without using the clutch?
4. If you experience a wobble, what should you do?

Range rules are designed to maintain safety for all riders and therefore apply to everyone. They are used in conjunction with all riding exercises, no exceptions. Range rules are as follows:

RANGE RULES

- Don't practice without the instructor's permission.
- Stay with each exercise as it's being practiced.
- Wear all protective gear when seated on the motorcycle.
- Cover the clutch lever with four fingers at all times – this enables you to immediately disengage power from the rear wheel, if necessary.
- Keep your throttle hand in a wrist-down position with four fingers around the throttle/handgrip.
- Do not "cover" the front brake while moving forward. Keep all four fingers wrapped around the throttle.
- Always check around you – front, sides, and behind –before moving.
- Don't crowd other riders – leave plenty of space between you and them.
- Do not pass other riders/motorcycles.
- Always use the engine cut-off switch to stop the engine, and then turn off the ignition.
- If you have a problem, move out of the way and signal your instructor.
- If you hear a referee-style whistle, stop smoothly and immediately and wait for further directions.
- If you don't understand an exercise, ask the instructor for clarification.
- Notify your instructor if you are too uncomfortable to ride safely.

Please familiarize yourself with the range hand signals on the next page!

RANGE RULES

The course instructors will use these hand signals to communicate with you while you are riding on the range.



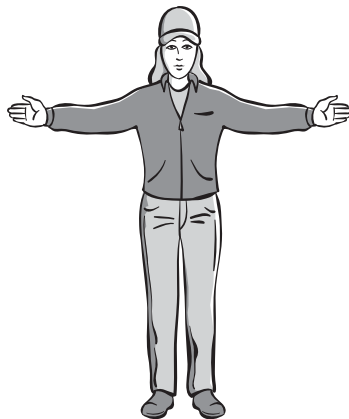
Start engine



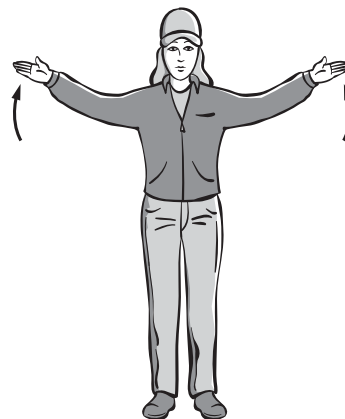
Stop engine



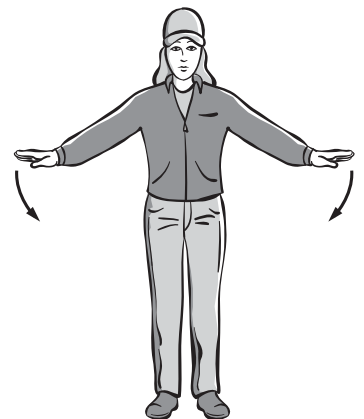
Motorcycle in neutral



Stop



Speed up



Slow down



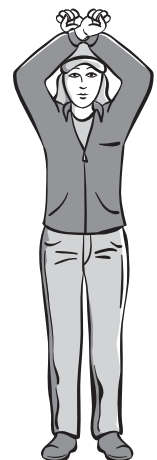
Cover clutch



Uncover front brake



Eyes up



Return to staging

FOLLOW ME



Arm extended straight from shoulder, palm forward.

SPEED UP



Arm down to side. Fist clenched. Twist as if turning throttle.

STOP OR SLOW



Arm extended straight down, palm back.

YOU LEAD



Arm extended down, palm forward. Swing forward from hip in arc.

HAZARD IN ROAD



Point immediately with emphasis. Sometimes done with right hand.

SINGLE FILE



Arm and index finger extended straight up.

DOUBLE FILE (STAGGER)



Arm extended straight up. Index and pinky form "Ram's Horn" sign.

CHECK HEADLIGHT



Tap top of head with open hand, palm down.

NEED FUEL STOP



Arm out to side. Point to fuel tank.

NEED FOOD, COFFEE STOP



Arm out to side, fingers closed, thumb pointing to mouth.

TURN SIGNAL LEFT ON



Repeatedly open and close hand with thumb and fingers extended.

PULL OFF



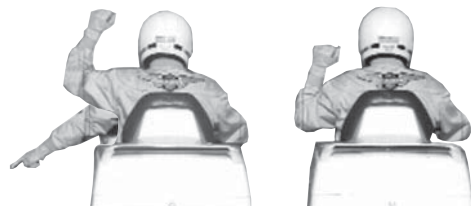
Arm raised as if for right turn. Hand then swung down toward shoulder.

COME ALONGSIDE



Start same as "You Lead" but ending pointing to side.

NEED COMFORT STOP



Upper arm extended, forearm straight up and down, fist clenched. Short up and down motion like pulling a lamp cord.

DO YOU NEED A MOTORCYCLE ENDORSEMENT?

If you operate any motorized vehicle on public roadways, Idaho law requires you to have a valid driver's license and acceptable proof of liability insurance. If you operate a motorcycle on public roadways, you will also need to add a motorcycle endorsement to your Idaho driver's license.

DEFINITIONS

It is important to understand if the vehicle you operate is a motorcycle or motor-driven cycle that requires you to have a motorcycle endorsement on your driver's license.

MOTORCYCLE/SCOOTERS:

Any motor vehicle having a seat or saddle for the use of the rider and designed to travel on not more than three (3) wheels in contact with the ground, that meets the federal motor vehicle safety standards (FMVSS) as originally designed, and includes a converted motorbike, but does not include a motor-driven cycle, a motorbike, a tractor or a moped.

A "motor scooter" or "scooter" refers to a wide variety of motorized cycles and toys. A two or three-wheeled vehicle of any size, manufactured for use on public roadways and sold by a licensed dealer is probably a motorcycle and an endorsement is required. A vehicle with two or more wheels not manufactured for use on public roadways and sold by retail variety stores is probably a toy.

MOPED:

A limited-speed motor-driven cycle having both motorized and pedal propulsion that is not capable of propelling the vehicle at a speed in excess of thirty (30) miles per hour on level ground, whether two (2) or three (3) wheels are in contact with the ground during operation. If an internal combustion engine is used, the displacement shall not exceed fifty (50) cubic centimeters and the moped shall have a power drive system that functions directly or automatically without clutching or shifting by the operator after the drive system is engaged.

Or if powered solely by electrical energy, it has two (2) wheels or three (3) wheels with no pedals, an automatic transmission, and a motor that produces less than two (2) gross brake horsepower, and is not capable of propelling the vehicle at a speed in excess of thirty (30) miles per hour on level ground.

OTHER MOTORIZED TWO OR THREE-WHEELED VEHICLES:

If your vehicle does not fall into one of the above two categories, you should consult the Idaho Transportation Department's Motorcycle Operator's Manual before operating your vehicle on public roadways. You will find a comprehensive list of motorized vehicles and their classifications.

It is a MOPED



You do not need a motorcycle endorsement

It is a MOTORCYCLE



You need a motorcycle endorsement

HOW DO YOU GET A MOTORCYCLE ENDORSEMENT?

- You must pass a written knowledge test and a motorcycle skills test.
- If you are under 21, you must also successfully complete a motorcycle rider training course.
- See the Idaho Motorcycle Operator's Manual for more information.

OPERATOR ENDORSEMENTS

Motorcycle (M) Endorsements are required on any Class A, B, C or D Driver's License when a motorcycle or scooter rider operates on public roadways. You must pass a written and a skills test before receiving a motorcycle endorsement. Successful completion of an approved motorcycle rider training course may waive the requirement for the riding skills test, if completed within the year prior to adding the endorsement to your license.

If you are surrendering an out-of-state license that has a motorcycle endorsement, you are still required to pass a written motorcycle knowledge test. If your out-of-state license has been expired for one year or longer, you will also be required to take the skills test. See the Idaho Motorcycle Operator's Manual for more information about this endorsement.

Applicants under 21 years of age are required to complete Idaho's motorcycle safety course offered by the **STAR** program to become eligible for a motorcycle endorsement.

MOTORCYCLE INSTRUCTION PERMIT

A Motorcycle Instruction Permit is available to anyone who holds a valid Idaho Class A, B, C, or D license. This permit is valid for 180 days and allows motorcycle or scooter operators to practice riding under the following restrictions: Daylight riding only; no freeway riding; no passengers. You must take and pass a written knowledge test before applying for an instruction permit. If you add the motorcycle endorsement to your Idaho driver's license during the instruction permit period, the one-time motorcycle endorsement fee is waived. Once the instruction permit has expired, you must pay the endorsement fee.

SAFETY INSTRUCTION

The **STAR** Program offers three courses: the Basic I, the Basic II, and the Experienced Course. All courses are taught by Idaho **STAR** Instructors and take place in a controlled, off-street environment. In the Experienced Course students ride their own motorcycles. All courses will teach and improve skills noticeably absent among accident-involved riders. Idaho **STAR** Completion Cards are issued by the **STAR** program within two weeks of successful completion of a **STAR** course. For more information, visit our website at www.idahostar.org.

MOTORCYCLE TESTS

Licensing tests are the best measure of the skills necessary to safely operate your motorcycle or moped in traffic. Here are the basic testing and licensing requirements for a motorcycle endorsement:

1. *Pass a multiple choice motorcycle operator knowledge test based on the information in the Idaho Motorcycle Operator Manual.*
2. *Pass a skills test. You will demonstrate your ability to perform basic maneuvers during an off-street skills test.*

*A Skills Test Practice Guide is available on the **STAR** web site.*

To make an appointment with an Idaho Transportation Department (ITD) certified motorcycle skills tester you may obtain a list of skills testers in your area from any county driver's license office or the ITD web site. There is a skills test fee payable to the skills tester at the time of the test.

NOTE: If you take and pass the skills test on a three-wheeled cycle or a sidecar, your motorcycle endorsement will be restricted to operation of three-wheeled cycles only.

To operate a moped on Idaho roadways, you need to have a valid Class A, B, C, or D driver's license. A motorcycle endorsement is NOT required for mopeds.

3. *Add the motorcycle endorsement to your valid Idaho driver's license. Licensing fees are subject to legislative change, so you may check the driver manuals or ITD's website for a current schedule of fees.*

www.idahostar.org/guide/intro.htm

<http://itd.idaho.gov/dmv/driverservices/ds.htm>

MANDATORY INSURANCE

All motorized vehicles operated on Idaho roadways, whether registered or not, must carry liability insurance providing the following minimum coverage:

- \$25,000 for injury or death of one person;
- \$50,000 for injury or death of two or more people; and
- \$15,000 for property damage.

When you register your vehicle, you must sign a statement certifying that the vehicle is and will be insured as required by Sections 49-117(18), and 49-1229, Idaho Code.

HELMET LAW

Idaho law requires riders and passengers under the age of 18 to wear a protective helmet while riding on or operating a motorcycle or scooter. Helmets must have a label certifying that they meet U.S. Department of Transportation (DOT) standards.

DRIVING UNDER THE INFLUENCE LAWS AND PENALTIES

Under Idaho law you are considered to be driving under the influence if your blood-alcohol concentration (BAC) is .02 or more if you are under 21 years of age, and .08 or more if you are 21 or older. An alcohol concentration of .20 or more carries even stiffer penalties. People who refuse the breath test will forfeit their license on the spot. The officer may issue you a temporary driving permit good for 30 days or until a hearing in court is held on the seizure of your license. If the court upholds the officer's findings, your license will be suspended for one year with absolutely no driving privileges of any kind for refusing to take the alcohol concentration test if it is your first offense. A second refusal within ten years brings even stiffer penalties. If you're convicted of a DUI, the criminal penalties are:

- **For a first conviction:** Up to six months in jail; up to a \$1,000 fine; and mandatory driver's license suspension of at least 90 days and up to 180 days (one year if you are under 21), with absolutely no driving privileges for the first 30 days.
- **For a second conviction within ten years:** Mandatory jail sentence from 10 days to one year (30 days if you are under 21); up to a \$2,000 fine; and a mandatory driver's license suspension of one year (two years if you are under 21).
- **For three or more convictions within ten years:** Mandatory jail sentence of from 30 days to five years; up to a \$5,000 fine; and mandatory driver's license suspension from one to five years. This conviction is a felony.

Anti-Lock Brakes: Braking systems that prevent skids during straight-line braking.

Apex: Point in a rider's path of travel closest to the inside edge of a curve.

BAC: Blood Alcohol Concentration. Percentage of alcohol in a person's blood.

Blind Spot: Areas behind and beside a vehicle not visible in the mirrors.

Conspicuity: The quality of being conspicuous; highly visible, easily seen.

Convex Mirror: Mirror having a surface that curves outward. They show more area but objects appear farther away than they actually are.

Collision: A crash or conflict.

Crash: To fall or collide with something; to undergo sudden damage or destruction on impact.

Counterweight: Shifting weight to the outside of the turn. Used to provide better balance in low speed turns.

Countersteer: Initiate lean by applying forward pressure to the hand grip in the direction of the turn: press right, go right; press left, go left. The front wheel out-tracks initially as lean is initiated, then re-centers and points into the turn.

Crowned Road: A road that is higher in the middle to promote drainage.

Divided Attention: Concentration on both mental and physical tasks at the same time or any simultaneous multiple tasks.

DOT: Department of Transportation.

DWI/DUI: Driving while impaired (DWI); Driving under the Influence (DUI). These terms refer to any and all offenses involving the operation of vehicles while under the influence of alcohol and/or other drugs.

Engine Braking: Slowing by using engine compression; shifting down and easing out the clutch or rolling off the throttle.

Entry Speed: Speed at the entry to a turn. A proper entry speed allows you to maintain a steady speed or accelerate gently throughout the entire turn.

Escape Route: An alternative route to avoid hazards in your immediate path of travel.

Exceeding Sight Distance: Riding at a speed that does not allow time to recognize and avoid hazards in your path.

Field Sobriety Tests: Roadside tests used by law enforcement to determine impairment.

Friction Zone: Area of clutch lever travel where the clutch begins to engage and transfer power from the engine to the rear wheel. Used in getting underway, downshifting and in slow speed maneuvers.

Gauntlet: A glove with a flared cuff for preventing wind from going up the sleeve.

Heat Exhaustion: A condition caused by exposure to heat, resulting in the depletion of body fluids that causes weakness, dizziness, nausea, and often collapse.

High-Side Crash: Crash in which the motorcycle snaps violently upright and throws the rider in front of the tumbling motorcycle. Often the result of releasing the rear brake when a skidding rear tire is not in alignment with the front.

Hydroplane: Water buildup under tread. Hydroplaning causes tires to lift from the roadway surface. Can cause loss of control.

Hypothermia: A clinical state of sub-normal body temperature when the body is unable to generate sufficient heat to efficiently maintain functions. Warning signs include uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness and exhaustion.

Integrated Braking System: Braking system that applies partial front braking when rear brake is applied.

Impairment: Diminished judgment and ability.

Lay it Down: See low-side crash.

Linked Braking System: System that engages both front and rear brakes when either is applied.

Low-Side Crash: Crash where the rider makes contact with the ground behind the sliding motorcycle.

Nystagmus: Involuntary jerking of the eyes.

ONE-C: Pre-start routine — Fuel valve/key ON, Transmission in NEUTRAL, Switch ENGINE to run or on, engage CLUTCH and use CHOKE as needed.

Overriding the Headlight: Riding at a speed that does not allow you to avoid hazards or stop within the path illuminated by the headlight.

Overriding Sight Distance: Riding at a speed that does not allow time or distance to stop or swerve if something unexpected enters your path or the roadway takes an unexpected bend.

Retro reflective: Material that reflects light back to the light source.

Rider Readiness: Being completely prepared for riding. This includes being mentally prepared and attentive, physically rested and unimpaired, having your motorcycle in good condition, wearing appropriate riding gear and being aware of and prepared for upcoming weather, roadway and traffic conditions.

Sight Distance: The road that is within sight at any given moment.

SIPDE: Acronym to describe defensive riding strategy: Scan, Identify, Predict, Decide, Execute.

Space Cushion: Zone of space surrounding rider. Maintained to provide space and time to react to hazards.

Square the Handlebar: Getting the steering centered and the motorcycle upright and traveling in a straight path. Helps to preserve balance at stops.

Target Fixation: Staring at the object you are trying to avoid. Target fixation is associated with riders striking obstacles they were attempting to avoid. Caused by failure to look to the escape route.

Tailgating: Following too closely.

Traction: Friction between the tires and the roadway.

Visual Directional Control: Guiding your motorcycle by turning your head and focusing your eyes on the desired path.

Visual Lead: Space allowed to identify and manage risks. Includes 3-second minimum following distance under optimum conditions, 10-15 second projected path of travel and 20-30 second anticipated path.

Wind Chill: The rate of heat loss from exposed skin caused by wind and cold.

