

## Part 8: What every motorcyclist must know

Some New Brunswickers enjoy the freedom and exhilaration that comes with driving a motorcycle. However, like any motor vehicle, it must be operated safely and responsibly for the safety of the driver, their passenger, and all those who share the road.

### **8.1 Motorcycle driver's licence**

The Class 6 licence permits the holder to operate a motorcycle and all vehicles included in Classes 6D and 9 on a street or highway.

In order to obtain a motorcycle licence you must complete all necessary requirements of the Graduated Drivers Licensing (GDL) outlined in Part 1 (pg 13).

If you already have another class of driver's licence (ex. Class 5), a motorcycle endorsement added to that licence permits you to drive a motorcycle in New Brunswick. To qualify, you must complete the motorcycle graduated drivers' licensing program.

### **8.2 Equipment**

- Brakes — Every motorcycle must be equipped with a brake on each wheel.
- Headlight — One and not more than three headlights are required.
- Rear lamp and brake light — Every motorcycle must have a rear lamp and brake light. These may or may not be the same light. Licence plate must be illuminated.
- Muffler — It must have a muffler in good working order.
- Handlebars — Handlebars should not exceed 30 cm (12 inches) in height as measured vertically from its point of attachment at the frame and be securely fastened.
- Foot rests — A motorcycle should have foot rests which may be used in the normal sitting position by an operator or passenger where the motorcycle is equipped for carrying a passenger.
- Rearview mirror — It must have a mirror which will give the driver a view of the highway for at least 60 m (200 feet) to the rear.
- Horn — A motorcycle must have a horn in good working order capable of being heard at 60 m (200 feet).
- Seat — Do not carry passengers unless the motorcycle has been designed to carry more than one person.

- Goggles — It is advisable that both drivers and passengers be protected by glasses, goggles or a transparent shield. This shield should be colourless for night driving and should not alter your perception.
- Headgear — You are not allowed by law to operate or ride on a motorcycle unless you are wearing adequate protective headgear of a kind prescribed by Regulation.

### **8.3 Safe driving rules**

Defensive riding is the most important key to safe driving. Expect the unexpected. Be aware of the other motorist at all times and always be prepared for their mistakes. Know your motorcycle and your own driving limitations and drive within them. Your skill and your attitude are important factors in defensive driving. While driving, continually assess the condition of the road ahead and behind.

Do not make yourself a hidden target. When stopping at an intersection you should stop behind the last car — never beside a vehicle in the same lane. Most motorcycle — car collisions take place at intersections. They also take place most frequently during daylight, on weekends, on dry, level roads and during the summer.

Most fatal motorcycle crashes involve collisions with automobiles. In the majority of cases, the car driver did not see the motorcyclist.

Wear clothing of heavy material (leather is recommended) with long sleeves, long pants, heavy boots and gloves when driving or riding as a passenger. For night riding, wear clothing of light colours with reflective material attached.

It is an offence to carry passengers on the handle bars, frame or tank of the motorcycle. It is also an offence to cling to or attach yourself or your vehicle to any other moving vehicle while driving your motorcycle.

Every motorcycle is entitled to the full use of a traffic lane and a full parking space.

Do not loan your motorcycle to inexperienced drivers or to someone who does not have a valid motorcycle licence.

## 8.4 Motorcycle safety check

For safe operation, a motorcycle must be maintained in sound mechanical condition and adjustment. Critical items should be verified daily, while others should be checked regularly.

### Daily safety inspection

Item(s)	Check...
Tires and wheels	tread depth, sidewall condition, inflation, foreign material or objects, rim condition, spoke tension, axle nuts, cotter pins
Final drive	chain or belt adjustment, wheel alignment
Lubrication system	oil levels, leaks
Fuel system	fuel level, leaks, valve operation
Cables and control clutch	throttle, choke, brakes
Electrical system	battery condition, fluid level, terminals, headlights (lens operation, adjustment, high/low), tail light (lens operation), brake light (front/rear actuation, adjustment), signal lights (lens operation), running lights, horn operation, auxiliary lighting (lens operation), indicator lights operation
Mirrors	adjust if needed, replace if broken
Legal	licence plate and decal, registration, insurance

## 8.5 Starting

You should develop a routine for starting up the engine to ensure that nothing important is missed. Before you get on, however, both you and the motorcycle should be properly prepared.

Your pre-start routine should include the following steps:

- F Fuel** — Does the tank have enough fuel for the trip? Is the fuel valve turned on?
- I Ignition** — Is the ignition key turned on?
- N Neutral** — Is the transmission in neutral? Roll the motorcycle backwards or forwards about a foot to ensure that it is.
- E Engine cut-off** — Is the “kill” switch turned to the run position?
- C Choke** (or Enricher) — If the engine is cold, is the choke applied?

On some models, you must disengage the clutch. If you can remember the term **F I N E - C**, then you should be able to perform the pre-start routine easily and properly.

So that you do not accidentally apply too much throttle, follow this procedure: grasp throttle with a flat or slightly bent wrist position, and use palm and thumb to control throttle and your fingers to control the front brake. If the wrist is lowered, you will have a hard time to reach the brake.

## 8.6 Stopping

The front brake (located on the right handlebar) is the most important. Other than at very low speeds (under 10 km/h), always apply both brakes to stop. The front brake provides about 70 per cent of the total braking force under normal road conditions because the weight shifts forward during braking. The rear wheel will lock if you apply too much force to the brake pedal but the front wheel is more difficult to lock.

Extensive practice is needed to get the most power out of your brakes while avoiding skids. Be careful in using your front brake. If you brake too hard, your front wheel may lock. This is more likely to happen on gravel, dirt or wet surfaces.

- Always be ready to stop. Downshift as you brake so you will have power available if needed. This also allows you to use the engine compression as a brake.

- Use both brakes every time you slow down or stop. If you use only the rear brake for normal stops, you may not have enough skill to use the front brake properly in an emergency.
- It is preferable when stopped in traffic to have transmission in neutral.
- When stopped in traffic and your motorcycle is in gear, keep the rear brake firmly applied. This will prevent the motorcycle from lurching forward should the clutch cable break or your hand slip off the clutch.
- Braking in turns can cause loss of control if road surface is slippery and the brakes are not used properly. If you must, use both brakes more gradually than on straight line braking. Do not lock either brake.
- Never ride the brake partly applied. It turns on your brake lights. This is confusing to other drivers and causes unnecessary wear on your brakes.
- You can stop quicker than most vehicles. Know what is behind you. Check your mirror often. If someone is too close, flash your brake light. Always leave adequate distance between you and the vehicle ahead in case you have to avoid a crash.
- When approaching sand or gravel, slow down and shift to a lower gear.
- When riding on wet or slippery roads, avoid sudden braking or rapid acceleration. Avoid painted or metal surfaces as they may be slippery.

**Keep your feet on the footrests. Remove them only when about to stop.**

## **8.7 Passengers**

Passengers may affect stability and control of the motorcycle, particularly at low speeds. When carrying passengers, instruct them to:

- hold tightly to either the driver or handgrips;
- keep their feet on the pegs;
- lean with the vehicle; and
- not touch the muffler or engine.

Do not carry a passenger unless your machine is designed for more than one person.

Remember that you need a greater distance in which to stop when carrying a passenger than you do when driving alone.

**NOTE: Drivers with a Graduated Motorcycle licence are not permitted to carry passengers**

## 8.8 Driving techniques

### Turns

Do your braking and gear shifting well in advance of a turn to slow down. When taking a curve at normal cruising speed, you should lean the motorcycle and your body at the same angle. However, when making a sharp turn at less than 25 km/h, you should lean the motorcycle in the direction of the turn farther than your body. Do not drag your feet on the road surface when turning.

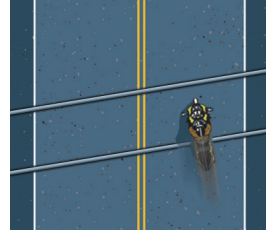
### Slippery surface

When driving on a slippery surface:

- avoid leaning the machine;
- use the front brake carefully - avoid sudden braking;
- decrease speed; and
- do not accelerate suddenly.

### Railroad tracks

When railroad tracks cross the highway at an angle, it is not always advisable to cross them head on. It may be safer to cross the tracks at a slight angle.



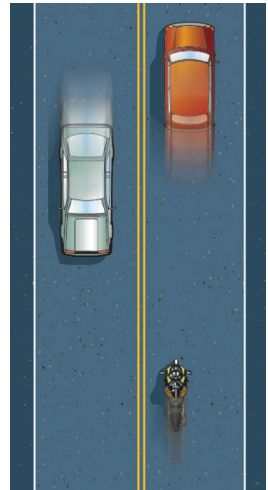
## 8.9 Defensive driving

In order to be seen by other drivers you should take into account their field of vision and learn to drive in a position where you can be seen. Do not ride in another vehicle's blind spot.

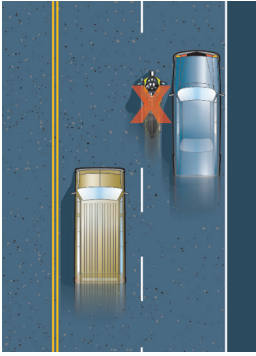
When riding with other cycles, do not ride two abreast in a single lane on public streets and highways. Stagger your positions so the driver on the left is in front of the machine on the right. This will allow room for both of you to manoeuvre and pass.

The best position in which to see ahead and to be seen by other drivers on a two-way, two-lane street is the left side of the right lane.

Each lane offers you three choices of position: left side, center and right side. There is no one lane position which is best all the time.



Evaluate traffic and road conditions constantly and decide what is the best position. There are advantages and disadvantages for each and your choice will always result in compromise.



Remember, it is very dangerous to operate a motorcycle between lines of traffic or to pass between curb lane traffic and the curb.

Ride on the right side when using the right lane, when preparing to make a right turn at an intersection. Do not ride on the extreme right of a road because: (a) you may not be seen by a driver waiting to enter the road; (b) cars may crowd in beside you; and (c) you will be too close to parked cars you may have to pass.

**Driving a motorcycle with lights on in daytime helps you to be seen by other drivers.**

## **8.10 Shoulder checks**

When you plan to start, stop or change direction in traffic, there is only one sure way to see a car behind you in the next lane; that is, turn your head and glance over your shoulder at the traffic behind you. Just checking your rearview mirror is not enough.

### **DID YOU KNOW?...**

The highway is likely to be more slippery for the first few minutes after it starts to rain or following light drizzle.

## **8.11 Following other vehicles**

You should always leave plenty of space between yourself and vehicles you are following because:

- Ahead you will be able to see traffic and road conditions more easily.
- If the road becomes slippery, you may need more room to stop than a car would.
- If the vehicle ahead should stop suddenly, you can use some of the space ahead to keep a vehicle behind from hitting you.

As you increase speed, allow more space between yourself and the vehicle you are following.

## Following distances

Following too close or tailgating is a frequent cause of highway collisions. To drive safely you must leave sufficient space between your vehicle and the vehicle ahead so that you can stop in the event of an emergency.

The Two-Second Interval is a good way to learn to recognize safe following distance. Just watch the vehicle ahead of you pass some definite point on the highway, such as a telephone pole. Then count to yourself “one thousand and one, one thousand and two”. That is two seconds. If you pass that same spot before you finish the count, you are following too closely. This holds true at any speed. This rule applies to favourable driving conditions. Unfavourable conditions call for lower speed and a longer count.

Do not use high speed highways unless you can keep up with the flow of traffic. Remember, the following areas are slippery when wet:

- painted lines and arrows, particularly when newly painted
- greasy areas in center of lane
- metal surfaces
- fallen leaves
- sand and gravel collected near the road shoulder.

## 8.12 Emergencies when riding

### Avoiding obstacles

A quick stop may not be enough to keep you from hitting something in your path. Debris or a pothole might appear suddenly; the only way to avoid a collision would be with a quick turn.

- The procedure for making a quick turn is to get the motorcycle to lean quickly in the direction you wish to turn.
- To get the motorcycle to lean quickly, counter steer. (Counter-steering means steering one way to send the bike in the opposite direction). If you wish to turn right, push on the right handgrip, this will cause the front wheel to move slightly left. The result is a lean to the right.
- As the motorcycle begins to lean, you now can turn the handlebars in the direction it is leaning to keep from falling over.



### **Riding over obstacles**

Sometimes you have no choice but to ride over an object in your path. A length of tailpipe, for example, may be seen too late to steer around it. In this type of situation, the basic rules to follow are:

- Hold onto the handlebars tightly.
- Keep a straight course.
- Stand slightly on the footpegs.
- Shift weight back.
- Accelerate slightly as front wheel reaches object.
- Decelerate and move weight forward as you go over object.

### **Sudden stops**

If you have to stop quickly try:

- To keep the bike upright and in a straight line.
- Apply each brake as hard as you can without locking either wheel. If a wheel locks up and skids, it may slide to one side making the cycle hard to control.
- If you are forced to brake when the front wheel is turned, do it gradually. Give more emphasis to the back brake.

You need practice to know how hard you can brake without locking the wheels and skidding.

- In an emergency situation, draw in the clutch, apply the front brake and push down on the back brake all at the same time. This will help your balance and stop you in the shortest distance.
- Remember if you take your feet off the pegs for balance, only your front brake remains on.

### **Wobble**

When travelling at high speeds, the front wheel can suddenly start to wobble (shake from side to side). The only thing you can do in this situation is to ride it out.

- Do not brake.
- Grip the handlebars firmly but do not try to stop the wobble.
- Gradually close the throttle and pull off the road as soon as you can.
- Check for unequal tire pressure, bent or misaligned wheels, loose spokes or an improperly mounted windshield.

All of the above are typical causes of unsteadiness.

## Stuck throttle

If your throttle sticks, the following steps should be applied:

- Immediately squeeze the clutch lever.
- Rotate the throttle back and forth several times.
- If you can not close the throttle, turn off the engine with the emergency kill switch, if you have one; if not, use the ignition key.
- Carefully steer off the road and stop.

## Blowouts

If you have a blowout, you will need to react quickly to keep your balance. A front wheel blowout is dangerous since it affects your steering.

You cannot always hear a tire blow. You should be able to detect a flat tire from the way the motorcycle reacts. If the front tire goes flat, the steering will feel heavy. If the rear tire goes flat, the back of the motorcycle will tend to slide from side to side.

If the rear tire blows, maintain your position on the machine. Don't brake – ease off the throttle instead.

If a front tire blows, hang on firmly and try to steer straight and shift your weight to the rear. When you've slowed enough, move to the right side of the road.

## Skids

Most motorcycle skids are caused by braking too hard - usually the rear wheel.

### To correct skid:

- **Rear Wheel:** Steer slightly in the direction of the skid, letting up on the brake so the wheel can turn. It is best to have the motorcycle as vertical as possible when the brake is released.
- **Front Wheel:** Release the front brake immediately.

A rear wheel skid caused by over-acceleration should be corrected by closing the throttle gradually. Sudden closing of throttle may worsen the problem.

