

# HITTING THE PICKS

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This month we look at braking procedures without breaking you or your bike

Like most riding skills, braking is a learned process, not a natural one. Research shows that nearly a third of all riders don't even apply the brakes in an accident situation, generally because panic overrides conscious reactions, hardly an ideal result. Therefore it pays to find and understand the limits of your tyres, your brakes and your bike. With practice, the correct braking skills will become an instinctive reaction so you will automatically follow the correct procedure in an emergency and be less likely to make a mistake.

When you 'roll off the throttle' and apply the brakes, most of the bike's moving weight immediately transfers to the front of the bike. The weight transfer that takes place under braking on a motorcycle pushes the front wheel into the road, improving traction.

Research also shows that the average rider can only properly concentrate on the use of one brake in an emergency, so concentrating on getting the best out of one brake (the front) is the safest way to go to start with, and you can add the rear brake as skills improve.

## FRONT BRAKE

This is the brake to concentrate on in an emergency because it provides around 80% of the stopping power (more with sportsbikes and a little less with cruisers). If you get the front brake action wrong, lock it up and don't correct that problem, then a crash is usually inevitable. The bike's front wheel will only skid uncontrollably and bring you down if you pull the lever too hard or too suddenly. Applying lever pressure in a staged (progressive) process makes the machine a lot more controllable.

Note: With most of the weight being on the front wheel, the rear wheel tends to be light under braking and will therefore lock up and skid very easily.

## TWO-FINGER FRONT BRAKING

Using just your index and middle fingers on the front brake will give you good control. It takes a bit to master

but you'll be surprised at how effectively it works: when rolling off the throttle, lock it off, using your thumb, ring and little finger. This leaves your index and middle fingers free to slide onto the front brake. It has the effect of ensuring that you can't accelerate and brake at the same time.

This technique enables you to regulate your braking smoother, and there is less chance of grabbing a big handful and causing the brakes to lock up. It gives you a strong but tactile hold on the handlebars, unlike when the whole hand is deployed. It also allows you to cover the front brake whilst still using the throttle when you're in situations where you need to apply your brake quickly, e.g. in high traffic areas.

Engage the front brake lever gently until the pressure comes on, then squeeze it harder for progressive braking. When braking, squeeze your knees together,



Two fingers - fine motor skills, four fingers is a fist



Most cruisers are two-finger braking capable too. With their weight distribution, the rear is used more than on a sportsbike



Armour interfering with lever pull



The front tyre is loaded up and gripping hard. The rear is skimming the road and you can see the front tyre compressing as well as the forks

## BRAKING WHILE CORNERING

If you need to slow down mid-corner, use rear brake rather than the front. Using the front will make the bike want to stand up, or worse, tuck the front under. Once remedied, have a quick word to yourself because you did something wrong in the execution of that corner. Motorcycles can brake harder while upright, so when braking, try to complete it before the corner to allow maximum braking with minimum risk.

gripping the tank to keep your body stable with your weight driving the tyre into the road rather than trying to rotate around the axle via the handlebars. This will also take some weight off your wrists, allowing you to retain feel and control.

Note: if you find that your brake lever comes in too close to the handlebars and your fingers, adjust it. If your lever still comes in too close to the handlebars, your brakes may need servicing.



Step 1 adjust the lever to suit your hands



Using the rear brake only will produce an impressive skid but you'll carry on into the crash

## REAR BRAKE

You only need to engage a small amount of rear brake (often just backing off the throttle will do) to start the process of shifting the weight from the rear to the front wheel. This will cause the suspension to compress, the front wheel will be gripping at its best, and these factors will stabilise the bike. Gentle and smooth are the two key things to remember to avoid lockup. Release any locking brake immediately and then re-apply. With cruisers, the rear has more weight on it, giving it a bigger role to play in normal braking situations, hence the large rear pedal many have. It is still not your primary brake, particularly under hard braking but it is more effective than a sportsbike's which will often have the rear wheel only just on the ground (if at all) under hard braking. Again, practice will enable you to gain confidence when using this brake, as an assistant to the front, which is the more effective brake.

## EMERGENCY STOPPING

Here you will need to use both brakes for the maximum stopping capacity on all but the sporty models. Apply the front first, and then add gentle rear brake to suit your particular bike.

Find a back road or an empty parking lot with no hazards or traffic around. Pick a spot to use as the braking marker, approaching at around 40km then apply the front brake gently to start, using more lever pressure as the bike starts to slow. Do the same with the rear brake so you have a good understanding about the stopping capacity with each brake without locking up either wheel, this will show conclusively why you need to be comfortable with the front brake. Gradually increase the speed for these exercises when you're ready. ▀



Two fingers on lever, knees gripping, heads up - Karel stopping quickly and safely

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