

The Emergency Stop Exercise

About 30% of driving tests will feature an emergency stop exercise. The requirement is to stop the car under full control when prompted to do so by the examiner.

Firstly, the examiner will ask you to pull over at the side of the road. They will then say something like this:

"In a moment I will ask you to perform the 'emergency stop' exercise. When I raise my hand, and say stop, I would like you to stop the car as if in an emergency. I will make sure that the road is safe before doing so. Please drive on when you are ready."

You are being tested on:

- ◆ Your ability to react promptly to the 'stop' command
- ◆ Your control of the vehicle under heavy braking
- ◆ Your observation skills when re-emerging onto the road



The Basics

Use of Mirrors

A good safe driver will always know the situation behind them. Using the mirrors effectively, the good driver will be able to anticipate the consequences of heavy braking. However, for the emergency stop exercise the examiner will check behind before asking you to stop, so you will not be required to look behind immediately before pressing the brake.

Steering

Keep both hands on the wheel until the car is completely stationary. Try to keep the car straight. You do not need to park. You just need to stop. The steering will become heavier as the front end dips because the weight of the car is given to the front wheels.

Brake and Clutch

Press the brake before the clutch, or, if you find this difficult at low (20mph) speeds, press the brake and clutch together. This will prevent stalling.

Handbrake

In a real emergency there may be vehicles behind you which, if they are too close, may cause a collision. Use your handbrake immediately upon stopping. This will decrease the likelihood that you will be shunted forward if there is a rear impact.

Moving off again

Moving away from the driving line (i.e. not from the kerb) will require a thorough all round safety check. Make sure that you are not being overtaken by making a 6 point check. Both blind spots (if you don't check them as a matter of course already). There may be a vehicle on your left!

Stopping Distances

Feet Per Second	Mph	Thinking Distance	Braking Distance	Overall Stopping Distance
30	20	6metres	6m	12m
44	30	9m	14m	23m
59	40	12m	24m	36m
73	50	15m	38m	53m
88	60	18m	55m	73m
103	70	21m	75m	96m

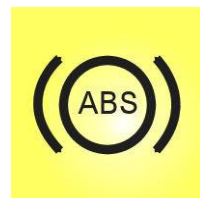
An average car is about 4 metres long. At 70 mph it will take approximately 25 car lengths to stop the car. In fact, if you spot an immediate danger at 70mph, you may have travelled 21 metres (5 car lengths) before you even press the brake!

I have included here the speed in feet per second. The MPH measurement has some unhelpful associations (people associate 20 mph with 'slow'). Remember that 20 mph is still 30 feet per second, which is the length of a London bus, each second.

Generally, keep at least 2 seconds from the car in front and at least 4 seconds in the rain.

Anti-Lock Braking System (ABS)

Most modern cars (10 years old or less) will be fitted with an 'ABS'. When you buy a car find out if it has an ABS. The system prevents the wheels from locking. Locked front wheels will not allow steering. For example, if you were travelling into a bend too fast, hit the brakes hard and caused the front wheels to lock, you would lose steering control, and potentially leave the road at the apex of the bend. The ABS enables the driver to steer under heavy braking.



ABS
malfunction
warning light

The ABS will release the brake to a particular wheel at the point at which it is about to lock and then reapply it again. During the fraction of a second of non-braking, grip is restored, and steering control is maintained. It may automatically repeat this process many times per second.

To use the ABS effectively you must not worry about the wheels locking. Plant your foot on the brake VERY HARD, and KEEP IT THERE! Look where you want to go, and STEER THERE!. The ABS is most useful where the road is wet, as that is where the wheels are most likely to lock.

Note: The ABS will not reduce your stopping distance. It simply enables you to steer under heavy braking.

Cadence braking (non ABS vehicles)

If your wheels lock, and if your vehicle is not fitted with ABS, then use 'cadence' braking. This means that you will need to slightly release the brake if the wheels lock. Use a foot pumping action to release/apply/release/apply/release/apply the brakes (in the same way that the ABS does).

Rear end skids

If the back of the car skids, and shifts, you may experience 'oversteer'. This is when the steering seems to turn the car more than you would expect. If this happens, focus where you want to go, and steer in the direction of the skid. When the car becomes straight, remove the remedial steering lock which you had applied.

For example, if the rear of the car loses grip, and skids left, then steer to the left. The vehicle's line should then become corrected. As soon as the vehicle is pointing where you want it to, steer straight. Focus your eyes on where you want to go!

How hard should I brake? ABS and non ABS

In good dry conditions the most effective way to stop the car is to press the brake very hard (AND KEEP YOUR FOOT ON THE PEDAL!). If the front wheels lock up, the friction which is caused by the tyres against the road surface will provide almost maximum deceleration. However, you may lose steering control if the front wheels lock.

In wet weather, if you are driving a car which **does not** have ABS, press the brake firmly but progressively. This takes practice. Learn how to make a controlled stop, rather than a 'stamp your foot' stop. With ABS just hit the brake hard, and keep your foot on the brake.

In Ice, avoid sudden stops. Travel at a speed where braking need only be gentle. Try to use the gears to slow down in ice!

Generally, don't do emergency stops

The best way to do emergency stops is NOT TO do emergency stops. Your ability to avoid harsh braking will depend on the following factors:

- ◆ Keeping safe gaps between yourself and the car in front
- ◆ Effective anticipation of road user behaviour
- ◆ Your level of alertness (or fatigue)
- ◆ Your ability to pay attention to the road for every second which you are on it

Remember your stopping distances:

- ◆ At 70 mph it will take _____ metres to stop.
- ◆ At 20 mph my overall stopping distance will be _____ metres.
- ◆ At 60 mph it will take _____ metres to stop.
- ◆ At 30 mph my overall stopping distance will be _____ metres.
- ◆ At 40 mph it will take _____ metres to stop.
- ◆ At 50 mph my overall stopping distance will be _____ metres.

