

Best Practice Guide

Ergonomics



Are You Sitting Comfortably?

The science of ergonomics draws upon human biology, psychology, engineering and design to create environments in which people are able to work better and have a lower chance of injuring themselves.

Using the same techniques, driver ergonomics relates to the space within a vehicle and to the different factors which can affect a driver's comfort. In particular, driver ergonomics focuses on ways of reducing back injuries through poor posture.

Take A Test Drive

When it comes to vehicles one size does not fit all and therefore when purchasing a new vehicle it is vital to look for one that 'fits' you.

Take a test drive and look for ergonomic features such as:

- A comfortable and adjustable seat.
- A back rest of shoulder height, which is wide enough to support your shoulders and does not obstruct your rear vision.
- An adjustable lumbar support which provides continuous support along the length of your back.
- An adjustable steering wheel which moves in / out, up / down and which tilts.
- Powered steering which can help prevent back strain.
- Pedals which are positioned centrally with a suitable amount of space between each one. Off set pedals can cause you to twist your body and can put pressure on the spine.
- An automatic gearbox which can be helpful to reduce strain on the spine.
- A boot with adequate space.
- Air conditioning, which can help you feel more comfortable in your vehicle and can prevent you from becoming too warm, which can lead to drowsiness.

Adjust Your Seat

Your driving seat should have an independent height and tilt adjustment, with controls that are easy to use and do not require any difficult turning or twisting.

The base of the seat should be wider than your hips and thighs in order to adequately support your legs and should be of a suitable depth to allow a space between the edge of the seat and the back of your knees to avoid putting pressure on the knees.

Adjust the seat so that:

- Your feet can reach and push the pedals without stretching.
- You can reach all controls comfortably.
- You can see the dashboard display easily.
- You have clear vision all round.

Think Material

The seat material is also an important factor, with fabric being the most suitable for comfortable driving. Leather seats can be more slippery and can contribute to slouched positions.

A good seat should be padded enough to limit the vibrations from your vehicle as long-term exposure to low-frequency vibrations can lead to tiredness.

Sit Up Straight

Slouching while driving for long periods not only causes neck and shoulder ache, but can cause long term stress and damage to the joints and muscles in the lower area of the spine.

Mirror, Mirror

Adjust the rear view and side mirrors so that you can use them without straining your neck or twisting your body.

Protect Your Head

The top of the head restraint should be positioned at least as high as the level of your eyes to ensure it would protect your neck in the event of a collision.

Adjust Your Steering

Make sure the steering wheel:

- Is positioned centrally, if it is slightly to one side this can result in extra strain on your spine.
- Does not obstruct the display panel at all, you should be able to see the panel from your normal driving position.

Keep Moving

Any posture, regardless of how good it is, can cause discomfort if held for too long. Moving your body slightly within your seat or adjusting the position of your hands on the steering wheel will help to prevent discomfort and injury.

Take A Break

Take regular breaks while driving, at least 15 minutes every two hours. During each break you should get out of your vehicle and walk around to stretch your muscles and vary your posture. Avoid driving for more than four hours per day.

Store With Care

To help avoid stretching in difficult positions you should store all items in the boot.

Avoid storing items:

- In the footwell where you would need to reach down to retrieve them.
- On the front seat, as they can be thrown forwards into the footwell or can slip down beside the seat.
- On the back seat to avoid having to twist and turn to retrieve them.

The Car Is Not An Office

Avoid using your vehicle as an office as doing paperwork or using a laptop in your vehicle requires you to hunch forwards or lean over, resulting in poor posture.

Using a mobile phone with a hands free kit can also cause poor posture if not used correctly. If you intend to use a hands-free mobile phone when parked safely, ensure the cradle, microphone and speaker are positioned in a way that they encourage good posture and do not require you to lean over or twist your spine.

- E** Ensure you choose a vehicle with ergonomic features.
- R** Remember to adjust your seat.
- G** Go on a test drive.
- O** Office work should not be done in the car.
- N** Never slouch.
- O** Only use the steering wheel in a central position.
- M** Move positions slightly to prevent discomfort.
- I** It is important to take regular breaks.
- C** Consider seat material.
- S** Store items safely in the boot.

WARNING

It is recommended that drivers sit with their chests at least 10 inches away from the centre of the steering wheel to reduce the risk of injury from the driver airbag.

(Source: Insurance Institute for Highway Safety)