

## Ergonomics Whilst Driving

This information sheet aims to provide you with some simple guidance that will help improve your driving experience.

The use of ergonomics in relation to driving is aimed at maximising the natural ability of your body to move and respond to the physical stress associated with the driving activity. This minimises exposures to risk factors that may result in injury or illness.

Studies have suggested ten ways to reduce the risk of injury or illness from ergonomic factors prior to undertaking any driving journey:

1. Pockets - Remove items from pockets, such as a wallet or keys, as they may press on soft tissue as the driver sits down. This compression can reduce circulation or press on nerves and other soft tissues;

2. Stretching - Items that are likely to be required during the drive, e.g. paper handkerchiefs etc, should be positioned somewhere that means stretching is not required during the driving activity. If reaching for an item is likely to be required then time should be taken to stop the vehicle in a safe place instead of risking an accident and/or injury due to awkward reaching;

3. Seat Belt - If the seat belt strap is uncomfortable, take time to adjust it to ensure it fits properly. Approved straps that can adjust the position of seatbelt straps can be used in some circumstances, e.g. pregnancy, young persons etc;

4. Mirrors - Adjust the vehicle's mirrors so that there is not need to make extensive movements to see. Blind spot mirrors can also be fitted to a car, but it should be noted that this does not remove the need to check the blind spot before undertaking certain driving manoeuvres;



5. Back tilt – It is recognised that the least amount of pressure is exerted on the back when the seat back is at 30 degrees past the vertical, i.e. slightly reclined. The seat back should fully support the driver's back. If the seat back cannot recline then it is advisable to move from side to side using small body movements in order to encourage blood flow, better still take regular breaks from the driving activity, more advice is available on this matter within AS32 – Driving at Work;

6. Lumbar support – the lower part of the back should feel supported. If it is not supported by the car seat then supplementary support can be added to the seat, for example a lumbar roll that can be purchased from a number of office supply companies;

7. Seat pan tilt – the seat of the car should allow the driver's knees to be slightly lower than their hips. This opens up the hip flexors and increases circulation to the back and decreases pressure on the lower back;

8. Seat base – when sitting in a car it is advisable to move as far back into the seat as possible. Drivers should still be able to place their hands comfortably between the back of the knee and the front of the seat. If this cannot be achieved then it may be possible to add a pillow or back cushion to the car seat to move the driving position forward;

9. Steps – Drivers of larger vehicles with a high step up should consider adding an extra step or slowly step in and out of the vehicle instead of jumping down. Over time, jumping down can cause compression to the spine. Straps and other hand holds should be checked frequently for wear and tear;

10. Steering wheel grip – It is advisable to keep two hands on the steering wheel at all times except when changing gears or operating essential car controls. Changing the hand posture frequently will improve circulation and reduce fatigue. There are common postures that should be avoided:

- The "death grip" – this grip results in decreased circulation and muscle tension. The grip should be light. If the knuckles are white, the grip is too hard;
- The "one arm" grip – The wrist is noted to rest at 12 o'clock on the steering wheel and the fingers grip over the top of the wheel. This will cause compression of soft tissue of the wrist and reduce circulation at the neck and shoulder too;
- Arms straight out in front to reach the steering wheel – Drivers should aim to drive with their shoulders relaxed and arms close to the sides of the body. Avoid reaching too far forward to grasp the steering wheel. Tilting the steering wheel upwards and using a light grasp lower on the steering wheel may be an option for some drivers;
- The "window prop" – this posture decreases circulation at the neck and shoulder and may compress soft tissue on the arm/wrist.

## Other Resources

IS11 - Occupational Road Risk

IS48 - Occupational Road Risk –  
Head Restraints

IS69 - Safe use of Mobile Phones (or  
similar)

IS80 – Minimising Vehicle Reversing

AS32 - Driving at Work

HSF46 - Occupational Road Risk  
Assessment

Online Training (via CONNECT)

Practical Training (Transport Services)

Safety & Wellbeing team [healthandsafety@northlan.gov.uk](mailto:healthandsafety@northlan.gov.uk)