

Prolonged periods of sitting can place heavy demands on our posture, particularly when sitting in a vehicle due to added effects of movement and vibration on the body. Being comfortable and well positioned in a vehicle aims to reduce driver fatigue and the development of musculoskeletal disorders.

It is imperative that everyone using a vehicle for work observes adequate ergonomic requirements to minimise the risk of injury.

1. Seat Height

- Raise the seat to ensure the driver has maximum vision of the road.
- Ensure there is adequate clearance from the roof.

2. Lower Limb Position

- Knees should be bent, in order to comfortably operate the accelerator/clutch and break. The steering wheel should not come into contact with the top of the legs.

3. Seat Pan

- Thighs supported along the length of the cushion.
- Avoid pressure behind the knees.

4. Back Rest

- Adjust the backrest so it provides continued support along the length of the back. Shoulders slightly behind the hips.

5. Lumbar Support

- The lumbar support whether adjustable or not, should provide comfort with no pressure points or gaps between the spine and car seat. A S-shape spine is a safe shape.

6. Steering Wheel

- All objects and controls should be in easy reach to prevent unnecessary reaching.
- Elbows and shoulders should be in a relaxed position with hands positioned below shoulder level.
- Check for clearance of thighs and knees (allow 2-4 cm).
- Ensure display panel is in full view and not obstructed.
- A good test is to put your arms straight in front (above the top of the steering wheel), the top of the wheel should sit at approximately wrist level.

7. Headrest

- The neck should be in a neutral position, with the headrest positioned centrally behind the head.

8. Mirrors

- Adjust the rear view and side mirrors to ensure adequate vision of surrounding areas.



Common Risks Associated with Driving	Ways to Minimise the Risk
Musculoskeletal Disorders (MSD's)	
<ul style="list-style-type: none"> • Driving a vehicle can be more detrimental than sitting or standing due to the affects of movement and vibration on the body. • Common risk factors associated with the development of MSD's include: prolonged sitting, fixed postures, inappropriate lumbar support and manual handling tasks when getting out of the car. • Lower back, shoulder and neck pain are commonly associated with prolonged periods of driving. 	<ul style="list-style-type: none"> • Apply ergonomic principles (see overleaf). • During breaks (15 minutes every 2 hours) incorporate postural variation e.g. stretches, walking around car etc. • Make small adjustments to driving posture every 30-60 minutes. • Practice correct manual handling techniques when taking items in/out of the vehicle. • If pain or discomfort persists, consult your treating health practitioner for further advice.
Fatigue	
<ul style="list-style-type: none"> • Fatigue is often ranked as the major factor in causing road accidents. • Fatigue occurs from insufficient sleep and when drivers are required to sustain attention over long periods of time. • Fatigue results in impaired attention, reaction speeds, vision, memory, impacting on driving ability. • Fatigue can result in micro-sleeps, which are unintended periods of light sleep, either in the form of a lapse in concentration, blankly staring/day dreaming or even momentarily nodding off. Micro-sleeps can last between last a few seconds to a minute. 	<ul style="list-style-type: none"> • Ensure you get a 7-8 hour quality sleep the night before driving. • Aim to not travel more than 8 hours per day. • Take a 15 minute break every 2 hours. • Where possible, alternate driving with your colleagues or with non-driving tasks. • Avoid driving whilst on medication that can cause drowsiness. • Eat a well balanced meal, avoiding fatty foods as they cause drowsiness. • Heat can increase feelings of fatigue, therefore fresh cool air and music act as a short term strategy in improving alertness. • Music can act as short-term strategies in improving alertness.
Vibration	
<ul style="list-style-type: none"> • Vibrations from the mechanics of a moving vehicle can be transferred to your body through the seat and steering wheel. • The operation of heavy machinery or heavy vehicles can cause higher levels of vibration. 	<ul style="list-style-type: none"> • Vibration forces can be decreased with thick, firm foam car seats, which can absorb some vibration as it passes through. • If possible, it is important to alternate driving tasks with non-driving tasks, to reduce the vibration exposure. • Maintain a neutral spine; your spine is better able to observe shock when the lumbar curve is being maintained in a neutral position, compared to a flexed lumbar spine position sit up straight. • Ensure tyre and suspension systems are maintained.
Sun Exposure	
<ul style="list-style-type: none"> • Most side car windows can only block out approximately 37% of harmful UV rays. • The most vulnerable areas whilst driving include the eyes, face, neck, arms and hands, particularly on the right side of your body. • This results in more pigmentation and sun damage on the right hand side of the body, increasing the risk of skin cancer. 	<ul style="list-style-type: none"> • It is optimal to have UV blocking/protective film on all windows to minimise exposure. • Wear sun protective clothing such as a hat or long sleeves. • Sunglasses are essential to prevent glare and reflection of UV rays. • Sunscreen is SPF 30+, apply 20 mins before exposure and reapply every 2 hrs. • Lip balm SPF 30+.