

# Driving Ergonomic Safety Tips

## Tips for Preventing Injuries



Workplace ergonomics is the science of designing the workplace to reduce injuries such as tendonitis and carpal tunnel syndrome. Ergonomic design promotes the use of neutral body postures to help avoid injuries. The tips below will help you in adjusting your motor vehicle equipment to promote a safe and healthy working environment.

### Neutral Body Postures

Before adjusting your equipment, you need a basic understanding of neutral body postures. Neutral body postures include:

1. Use joints in their mid-range of motion. Avoid reaching, twisting, bending, etc.
  - Tip:** Position hands at 4 and 8 on the steering wheel.
  - Tip:** With hands on the wheel and relaxed shoulders, keep your elbows at your side, not out in front of you. Use the seat adjustment to move closer to the steering wheel to achieve this position. **Note:** For vehicles equipped with airbags, maintain 10 inches between you and the wheel for safety during airbag deployment.
  - Tip:** Avoid gripping the wheel too tight, the one hand grip, the arms straight out grip, and the propping one arm up on the window grip.
  - Tip:** Adjust the mirrors so you can easily use them without awkward postures.
2. Sit upright in the seat with your back fully in contact with the backrest for support. Do not slouch or perch on the edge of the seat.
  - Tip:** If you are unable to maintain contact with the backrest for support while reaching the pedals use the seat adjustment to move closer to the steering wheel. If the adjustment is not enough, a lumbar pillow may be added to provide support while reaching the pedals.
  - Tip:** Adjust backrest angle so thighs and torso form a 90° angle at the hip. The angle may be adjusted between 90° - 110° throughout the day to alternate the position while maintaining support.
3. Forearms and wrists should be parallel to the floor (i.e. upper arm and forearm at a 90° angle at the elbow).
  - Tip:** See tips under #1.

4. Thighs should be parallel to the floor (i.e. thighs and torso at a 90° angle at the hip).

**Tip:** Adjust the seat height and/or the pedal height. If seat height/pedal adjustments are not available, increase the frequency of microbreaks.

5. Head should look straight forward, not tilted forward or tilted back.

**Tip:** Adjust the headrest to minimize tilt while supporting the head.

**Tip:** See #2.



## Additional Considerations

- Keep the suspension system (springs, shock absorbers, etc.) in good repair.
- Remove items from your pockets such as wallets or keys.
- Position items you may need while driving within easy reach, such as sunglasses, etc. If you cannot easily reach them, pull over to get them.
- When looking behind while backing, place your right arm over the passenger seat to reduce twisting.
- Minimize turning to the back seat to talk to passengers.
- If lifting items from a trunk, pull the item as close to you as possible before lifting. Minimize bending of the back and lift with the legs. **Note:** After prolonged driving, take a break before lifting objects.
- When selecting a new vehicle, choose a model with ergonomic seat design including adjustable seat height, tilt, and lumbar support.

## Microbreaks

Even if you use perfect neutral body postures, performing repetitive tasks or holding the same position for too long stresses muscles. Using microbreaks in addition to neutral body postures can help reduce the stress on your body and prevent injuries. Microbreaks are frequent, short breaks that allow change of positions, use of different muscle groups, and stimulate blood flow.

**Tip:** Take a microbreak every hour for 60 - 90 seconds.

**Tip:** Use large movements such as swinging your arms, shoulder rolls, shaking out your hands, marching in place, etc. and use smaller movements like wiggling your fingers. You may also include some light stretching.