



# Ergonomics of driving

The goal of the ergonomics of driving is to fit the car to maximize the natural ability of the body to move and respond to physical stress. Proper ergonomics minimizes exposures to risk factors that may result in injury or illness.

## Ten Tips to Improve the Ergonomics of Driving

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## Suggestions for the next drive:

Remove items from pockets, such as a wallet or keys, which may press on soft tissue while seated. This compression can reduce circulation or press on nerves and other soft tissues.

Position items needed during the drive: sunglasses, tissue, throat lozenges, or mints.

Place these in a location within reach. Pullover to search for an item instead of risking an accident and injury due to awkward reaching.

**Buckle up!** If the seat belt strap is uncomfortable, take a short piece of large diameter soft pipe insulation or foam and place it on the part of the strap that is not comfortable. Alternatively, purchase a shoulder strap cushion at a car accessories store.

Adjust the mirrors so as not to crane the neck. If there is a blind spot, attach a small mirror to the dashboard to improve the view.

**Lumbar support** – Roll up a small towel and place it in the lower back curve or use a lumbar roll, a cylindrical shaped pillow.

**Back tilt** – At a slightly reclined angle, the slightest pressure on the back occurs at 100-110 degrees. The seatback should fully support the back.

**Seat cushion length** – scoot the tail bone as far back to the seat back as possible. After doing this, place the hand comfortably between the back of the knee and the front of the seat. If this is not possible, add a pillow or back cushion to move forward.

**Seat pan tilt** – The car seat should allow the knees to be slightly lower than the hips. Opening the hip flexors increases circulation

to the back and decreases pressure on the lower back. For long trips, alternate raising the knees higher than the hips.

**Stepping up and stepping out** – A large or high vehicle requires an extra step. Over time, the jumping down can cause compression to the spine.

**Steering wheel grip** – “the best posture is the next posture.” Keeping two hands on the steering wheel is advisable except when shifting gears. Change hand postures frequently to improve circulation and reduce fatigue.

#### **Postures to avoid:**

- The death grip. This grip results in decreased circulation and muscle
- The grip should be light. If the knuckles are white, the grip is too hard!
- The one-arm. At noon, the wrist rests on the steering wheel, and the fingers flop over the top. Not only does this cause compression of the soft tissue of the wrist, but it reduces circulation at the neck and shoulder, too.
- Arms straight out, drive with the shoulders relaxed and arms close to the sides.
- One arm propped out the window – this posture decreases circulation at the neck and shoulder and may compress soft tissue on the arm/wrist.

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