



Ergonomics Advisor

Driving Ergonomics

Researchers have alerted companies to the “hidden costs” of driving, most notably absence from work due to driving-related back problems.



Driving can cause health problems.

Driving impact

A recent study of car drivers identified two groups of employees as high risk: those who drove for prolonged periods and those who logged high annual mileage (Porter and Gyi, 2002).

Employees who drove >20 hr/wk as part of their jobs were six times more likely to be absent

from illness due to low back pain than those who drove <10 hr/wk as part of their jobs. Similarly, high annual mileage drivers ($\geq 25,000$ mi) reported significantly more days off work due to low back problems than low annual mileage drivers (<5,000 mi).

Number 1 on the American Chiropractic Association's list of the 10 occupations considered at highest risk for developing back pain is heavy truck and tractor-trailer driving.

These high-risk drivers sit for long periods in their trucks, where their spines are exposed to constant compression and vibration.

Help is available

Ergonomists can help drivers minimize their risk of back injury and help those with chronic back pain work more comfortably and productively.

Anderson Ergonomics Consulting understands the impact driving-related illness has on the workplace and is committed to the health and safety management of those who drive for business purposes or for a living.

For a safer, more comfortable drive . . .

1. Use a lumbar support that can be adjusted to support the natural curvature of your lower back while driving. If your car seat doesn't have one, you can purchase a lumbar roll that fits your back or else use a rolled-up towel or sweater.

2. Adjust your vehicle's headrest to support your head, and then sit back. (Drivers who lean forward in their seats are in greater danger of whiplash should their vehicles be rear-ended.) Make sure the headrest doesn't

push your head and shoulders forward, which will cause discomfort in the neck, shoulders and upper-back areas.

3. Try moving the seat forward and/or adjusting the steering wheel so that you can drive with your elbows bent, upper arms close to the sides of your body and your shoulders relaxed. Shoulder discomfort may also be caused by reaching for the steering wheel or stick shift.



While driving keep your hands mostly at the 9 and 3 o'clock positions on the steering wheel.

4. Change your hand positions frequently to increase circulation, but avoid resting your wrist



Keep your attention on the road when using the cell phone.

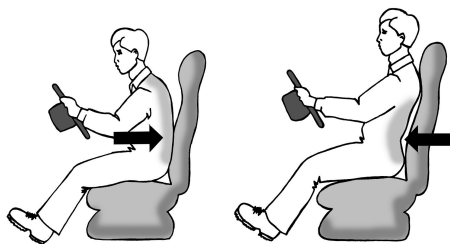
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on the steering wheel with your fingers dangling over the top. This position compresses the soft tissue in the wrist and reduces circulation in the neck and shoulders.

5. Spend time adjusting your car's mirrors before the journey so you won't have to strain your neck to see.

6. Be aware of the potential dangers related to using a cell phone in a moving vehicle. Studies have suggested driver distraction due to the cell phone conversation itself may be more likely to cause an accident than the mechanics of making the call. Choose a hands-free system with a headset, but if the call is long or demanding, pull over to the side of the road.

7. To improve circulation and lessen fatigue and sore muscles, try these exercises as you drive: butt squeezes, pelvic tilts and pushing



The pelvic tilt will help reduce discomfort in your lower back.

your feet against the floor boards to stretch out. Keep both hands on the wheel at all times!

8. Stop and take a 15 min break every 2 hr or more often if necessary. Get out of the car, do stretches and move about to get the circulation going.



The above exercise will stretch the hip flexor muscles that tighten when sitting too long.

9. Falling asleep at the wheel is one of the major causes of car crashes, so learn to detect early signs of fatigue. (A 20-30 min nap by the side of the road can help restore alertness.)

Be aware of the strong urge to push through fatigue to get home as quickly as possible. Recognize that you'll likely feel most tired between midnight and dawn due to a dip in the body's circadian cycle.

Ergonomic Driving Tips

1. Support lower back
2. Adjust headrest
3. Relax shoulders and arms
4. Vary hand positions
5. Adjust mirrors
6. Use cell phones cautiously
7. "Exercise" while driving
8. Get out and stretch
9. Recognize fatigue



Select the vehicle that's right for you, and then learn how to use its adjustable features to ensure comfortable driving posture.

Anderson Ergonomics Consulting has a Drivers' Injury Prevention training program that teaches "drivers" how to prevent injuries and reduce discomfort while driving.

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