

Take the pain out of driving

THE CHARTERED SOCIETY OF PHYSIOTHERAPY



Ask yourself

Are you planning to buy a new car?

Have you been offered a company car?

Are you experiencing back pain in your car?



In a recent study of business car drivers, at least half said they had suffered from low back trouble in the last 12 months.

Many leisure drivers also experience back pain after driving long distances. Still more people find that driving irritates an existing back problem.

This leaflet aims to help individual drivers take the pain out of driving, and also offers advice to companies on steps they can take to look after the health of their employees and reduce sickness levels.

It is not possible to recommend specific cars to avoid low back pain - we all vary in size and shape and a car that suits a 5ft 3" woman will be very different to the appropriate car for a 6ft man. However, the key issue is to choose a car that fits you and is appropriate to your work and leisure, and allows you to adopt a range of good driving postures. Back pain can be prevented by maintaining a good and comfortable posture while driving.

Please note: The photographs within this leaflet are for illustrative purpose only and give examples of poor postures.



Choosing a car - what to look for

Remember, the more adjustable features within your car, the greater the likelihood of you achieving good and comfortable postures that suit you. When choosing a car, whether you are buying it for yourself or selecting a company car, pay attention to the following guidelines.

Seating

- Choose a comfortable and supportive seat which allows you to adjust the height and tilt independently of each other.
- The base of the seat should neither be too long nor too short - it should support your thighs and should be positioned to ensure adequate space between the edge of the seat and your knee, i.e you need to avoid pressure behind your knee.
- The seat should be wider than your hips and thighs.

- Adjusting the height of the seat should allow your feet to reach the pedals without stretching. You should also be able to reach all hand controls easily and have a good view of all the display instruments, as well as good all round vision.

Avoid using your car as an office. Many of the tasks, such as using a laptop and sorting out paperwork in a car, cause you to bend forwards, resulting in increased stress on your back. Find an alternative working environment which allows you to achieve good posture

Back rest

- The back rest should come to shoulder height and should not obstruct your rear vision. It should be wide enough to support your shoulders.

Lumbar support

- The back rest should provide continuous support along the whole length of your back. An adjustable lumbar support may help to achieve this, but be careful - if it does not offer full adjustment this could result in pressure points or gaps.



If you experience discomfort when driving, listen to your body. Report the discomfort to the appropriate person in your company and see your GP or an on-site occupational health specialist such as a nurse, physiotherapist or ergonomist.

- An adjustable lumbar support should offer up/down and in/out adjustment.
- Always ensure the lumbar support fits your shape and is comfortable.

Steering wheel

- Choose an adjustable steering wheel - one that can move in and out, up and down and can tilt.
- Power steering will take the strain off your back.
- Make sure the steering wheel is positioned centrally - if it is off-set it could put an extra strain on your spine.
- The steering wheel should not obstruct the display panel.

Pedals and gearbox

- An automatic gearbox can be helpful.
- Pedals should be centrally positioned with adequate space in between. Off-set pedals can put extra pressure on the spine.

Boot

- Choose a car with appropriate sill height, easy access and enough space for your needs. The sill height should, for example, not be too low, so that when manually handling loads in/out of the boot, you can do so with good, comfortable postures and therefore minimise the risk of injury.

Car environment

- Ensure you have comfortable leg and head room.
- Air conditioning will help to keep you comfortable.



Selecting cars for company drivers

Research has highlighted a number of considerations which should be paramount when choosing cars for your company drivers. Paying attention to these guidelines should result in happier, healthier employees, reduced sickness levels due to low back problems and increased productivity for your company.

- Beware of reducing your ergonomics choice through solus or duplex arrangements. Remember differences in types of work, annual mileage and body size of the driver mean that, with cars, one size will not fit all.
- Your car selection process should provide access to a suitable range of manufacturers to ensure the car chosen can accommodate the ergonomics needs of each individual driver and provide a good 'fit'. Manufacturers should offer car models suited to the tasks of the drivers, with adjustability to enable each driver to adopt a good posture.

Assess your lifestyle both in and outside of work. There can be many contributory factors to back pain. Good posture and regular exercise can play a key role in preventing back pain.

- Provide drivers with flexibility and personal choice within the car selection process, to ensure their ergonomics needs are met.
- Regularly review the cars available to the drivers.
- Recommend and facilitate test-drives before an employee chooses a car.
- Ensure the monthly lease cost is not the only key deciding factor in choosing cars - if employees are not comfortable, the overall cost to the company could be far higher.
- Always bear in mind the body size of the driver, type of work and annual mileage of the driver and the ergonomics of the car.

If you have any difficulties in these areas, seek specialist advice.

Reducing back pain in high mileage business drivers

The information in this leaflet is based on research carried out by a team of ergonomists and a chartered physiotherapist based at Loughborough University, Department of Design and Technology and HJ Consultancy, Marlow. The research was funded by the Department of Health and the Health and Safety Executive as part of their initiative 'Back in Work - Developing Good Practice'. The main aim of the project, 'Reducing back pain in high mileage business drivers', was to alert companies to the hidden costs of driving, namely sickness absence due to low back trouble, arising from a high exposure to driving a car on company business. For more information on this research, visit www.drivingergonomics.com.



Posture

Any posture, no matter how good it is, can lead to discomfort if it is held for too long. Therefore it is important to adopt a range of comfortable driving positions and to make frequent changes to avoid, or help delay, the onset of discomfort.

You should also take regular breaks and avoid driving for more than four hours a day. The Highway Code recommends taking a break of at least 15 minutes every two hours. This should be the maximum length of time you drive without a break, and on each break you should change your position, i.e. get out of your car and walk around.

The following tips should help you to find positions which are comfortable for you.

To order further copies of this leaflet, contact the Communications Department at the Chartered Society of Physiotherapy on 020 7306 6620.

Initial driving position and posture guide

Take the time to familiarise yourself with ALL the adjustments (eg seat, steering wheel, seat belt). Start by getting the seat into the 'initial set-up position'. This means:

- Steering wheel fully up and fully forward
- Seat height at its lowest
- Cushion tilted so that front edge in lowest position
- Back rest approximately thirty degrees reclined from vertical
- Lumbar adjustment backed off
- Seat fully rearwards.

Step one

- Raise the seat as high as is comfortable to improve your vision of the road.
- Check you have adequate clearance from the roof.

- Ensure you have maximum vision of the road.

Step two

- Move the seat forwards until you can easily fully depress the clutch pedal and accelerator pedal.
- Adjust seat height as necessary to give good pedal control.

Step three

- Adjust cushion tilt angle so that the thighs are supported along the length of the cushion.
- Avoid pressure behind the knee.

Step four

- Adjust back rest so it provides continuous support along the length of the back and is in contact up to shoulder height.



- Avoid reclining the seat too far as this will cause excessive forward bending of the head and neck, and you may feel yourself sliding forwards on the cushion.

Step five

- Adjust lumbar support to ensure even pressure along the length of the back rest.
- Ensure lumbar support 'fits' your back, is comfortable with no pressure points or gaps.

Step six

- Adjust the steering wheel rearwards and downwards for easy reach.
- Check for clearance for thighs/knees when using pedals.
- Ensure display panel is in full view and not obstructed.

Step seven

- Adjust the head restraint to ensure the risk of injury is reduced in the event of a car accident.

Repeat stages 1-7 and fine tune as necessary

Be aware that many cars will not allow you as much flexibility of driving posture as you may wish. Particular cars may cause you to adopt a 'coping' posture. For example, limited headroom forces a reclined posture, making reach to the steering wheel a problem. This leads to excessive forward bending of the head and neck, resulting in a 'slouched' posture.

The Chartered Society of Physiotherapy is the professional and educational body, and trade union for the United Kingdom's 39,000 chartered physiotherapists, physiotherapy students and assistants. We aim to protect our members' interests and help them to achieve the best possible patient care.



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How to find a physiotherapist

Most chartered physiotherapists work in the NHS. Others can be found in GPs' surgeries, community centres and private practice. Increasingly, they are also working with employers in occupational health departments. Often their costs can be covered through private medical insurance. Your local GP or hospital should be able to recommend a physiotherapist. You can also contact the Association of Chartered Physiotherapists in Occupational Health and Ergonomics on 01964 534 376, www.acpoh.co.uk or the Organisation of Chartered Physiotherapists in Private Practice on 01327 354441, www.physiofirst.org.uk.

When choosing a physiotherapist, always make sure they have at least one of the following sets of initials after their name:

- MCSP (Member of the Chartered Society of Physiotherapy)
- SRP (State Registered Physiotherapist)