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# Back pain management programme

## Seating and ergonomics

### Poor posture

Sitting is something people take for granted, yet poor posture in sitting can aggravate back and neck pain. Sitting up straight may initially seem a little strange or even unnatural. This is because we tend to slouch when relaxing or have become used to sitting on chairs that provide little or no support. When we are in pain we may change our position to be more comfortable and help relieve the pain, for example, leaning to one side or curling up. It is important to remember that our bodies learn very quickly: poor posture and the way we sit can become habitual and, therefore, feel natural.

### Sitting up straight

The secret of sitting correctly is that we maintain our natural 'S' shape curves in the spine as this is a key component in beating back pain. When sitting like this, your weight and gravity is distributed evenly and our muscles do not have to pull against each other to hold an uneven position. We don't expect you to sit up straight all of the time; try to make it one of the sitting activities you usually use.

The aim for those with back pain is to sit in comfort and be able to sit for longer. We should avoid sitting for prolonged periods by standing up and walking around. Using the pacing technique, which has been explained to you in a previous leaflet, will help to improve poor sitting time and gradually increase your sitting tolerance.

### Finding a chair that suits you

#### Knees → Floor

Your feet should be flat on the floor and your bottom should be at the same height as your knees. If your pain is at the base of your spine you may find it more comfortable if your bottom is slightly higher than your knees. This will put a little more weight through your thighs and feet, and should take some of the pressure off the base of your spine. This can be achieved by using a wedge shape cushion. A foot rest can be used to raise the feet if necessary.

#### Hips → knees

Put your bottom to the back of the chair to stop your pelvis tipping back as this causes strain on your lumbar spine. The depth should be deep enough to support the length of your thighs. The distance from the back of your knees to the front of the chair should be about the width of two fingers. This ensures weight is distributed evenly though your legs.

### Armrests

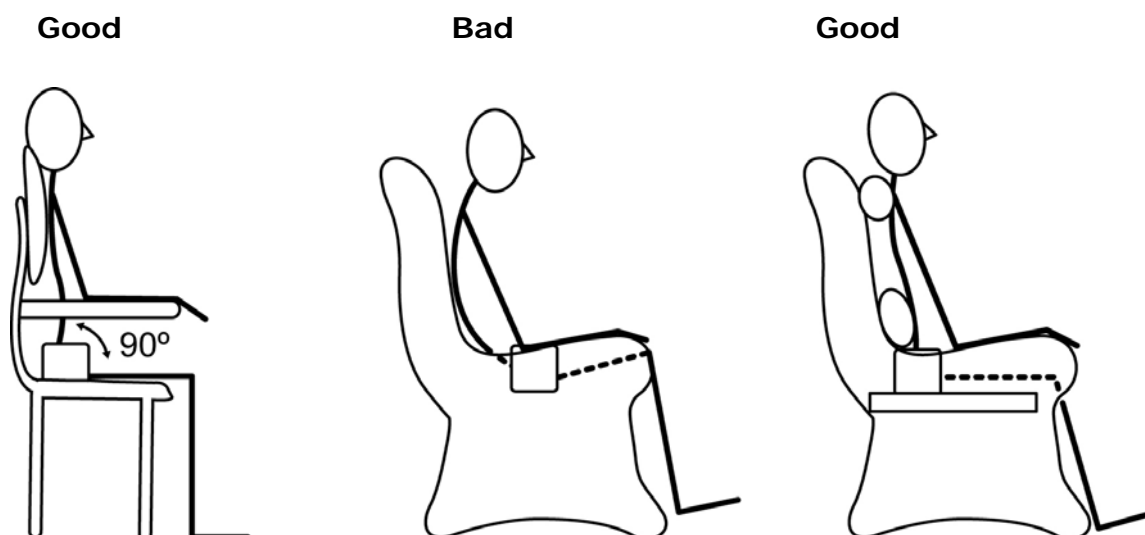
If a chair has armrests they should be positioned at elbow height with the shoulders relaxed. If they are too high they will push up the shoulders creating neck tension. If they are too low you are liable to lean over to one side to rest on one which can cause extra back strain.

### Firmness

The best type of cushion is firm, not too soft. Very soft chairs can encourage you to adopt a 'C' shape curve in your back creating strain. A chair can be made firmer with a board under the cushion.

### Lumber support

Backrests should support the curves of your spine. Chairs will often not have any lumbar support or you may not feel that this is in the right place for you. A lumbar roll or small rolled up towel placed right at the bottom of your back can provide extra support.

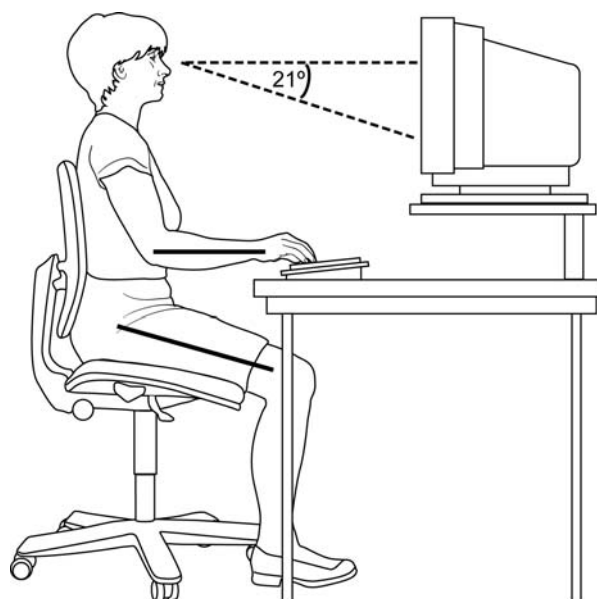


### Ergonomics

Correct sitting posture at work is essential in helping you to avoid neck and back pain. Your chair should be comfortable and the controls easy to reach. Adjust the seat and back frequently to suit the task and maintain full back support. The pelvis should be tilted forwards enabling the spine to hold its natural 'S' shape. The workstation should suit the user with the height and position of the equipment being corrected for their stature.

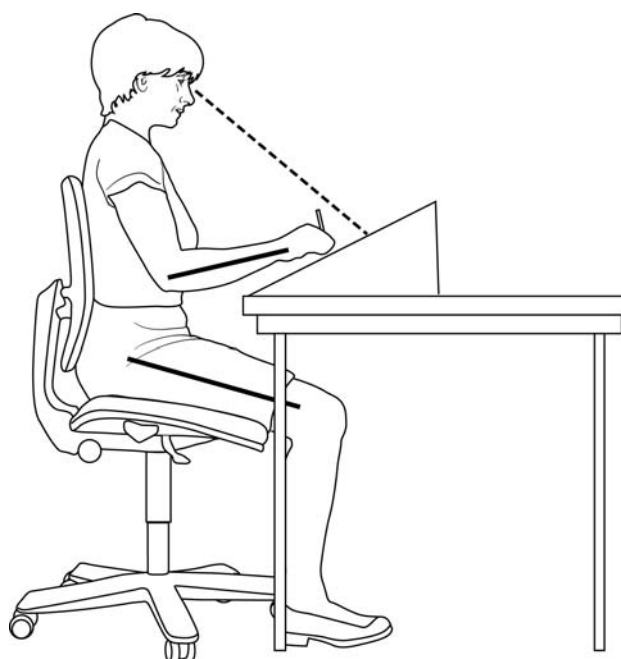
## Ideal posture for working at a computer

- **Posture.** Lengthen your spine to its natural balanced posture, keeping your head and shoulders in line with the buttocks. Don't slouch. Sit back in the chair to maintain support of the spine and pelvis.  
Do not perch on the front of the seat. Move the chair close to the desk to avoid stretching or leaning the upper body forwards. Move, if possible, regularly rock or change position. Muscle activity increases blood flow to reduce fatigue and stops strain due to static loading.
- **Chair.** The chair should be fully adjustable. Tilt the seat forwards to rotate the top of your pelvis so your spine is in its natural 'S' shape. Adjust chair height so hips are slightly higher than your knees. Back and seat depth must fit size/stature of user. The seat should be tilted forward (5-15 degrees) and have height adjusting arms, well defined lumbar/pelvic support and adjustable lumbar support for correct fit.
- **Desk height.** The middle row of the key board should be level with your elbow and forearm. Arms should be parallel to the floor. If the desk is too low, raise it with desk feet. If it is too high, use a foot stool and raise the seat height. Place the mouse in an easy reach from the keyboard.
- **Screen.** The screen should be at arms length and at eye level in front of the user. Use copy holders so input data is within field of view.
- **Telephone.** If used more than 40% of the working day, consider a hands free set for more efficient working.
- **Space.** Create sufficient room to work especially if multitasking. Place equipment on stands if necessary.
- **Movement.** Try and change your position regularly.



## Ideal posture while writing

- Posture – As for computer
- Chair – As for computer
- Desk height – Elbow should be just below the desktop. If the desk is too low or too high, alter as for computer.
- Writing slope – Raise work using a slope. This reduces the viewing distance, lessens eye strain and prevents the body leaning forwards. Hold head upright to maintain a balanced upright posture. If taking notes from a book, keep it within the field of view using an attachment above the slope.
- Telephone – As for computer
- Space – As for computer



The effects of poor posture in sitting will have been developing for a long period of time and will not go away in a few days or weeks. It doesn't matter how long it takes, as long as you see an improvement. As your pacing increases, you will be able to sit for longer with less trouble, but don't put the pacing beyond one hour. No one should sit for more than one hour.