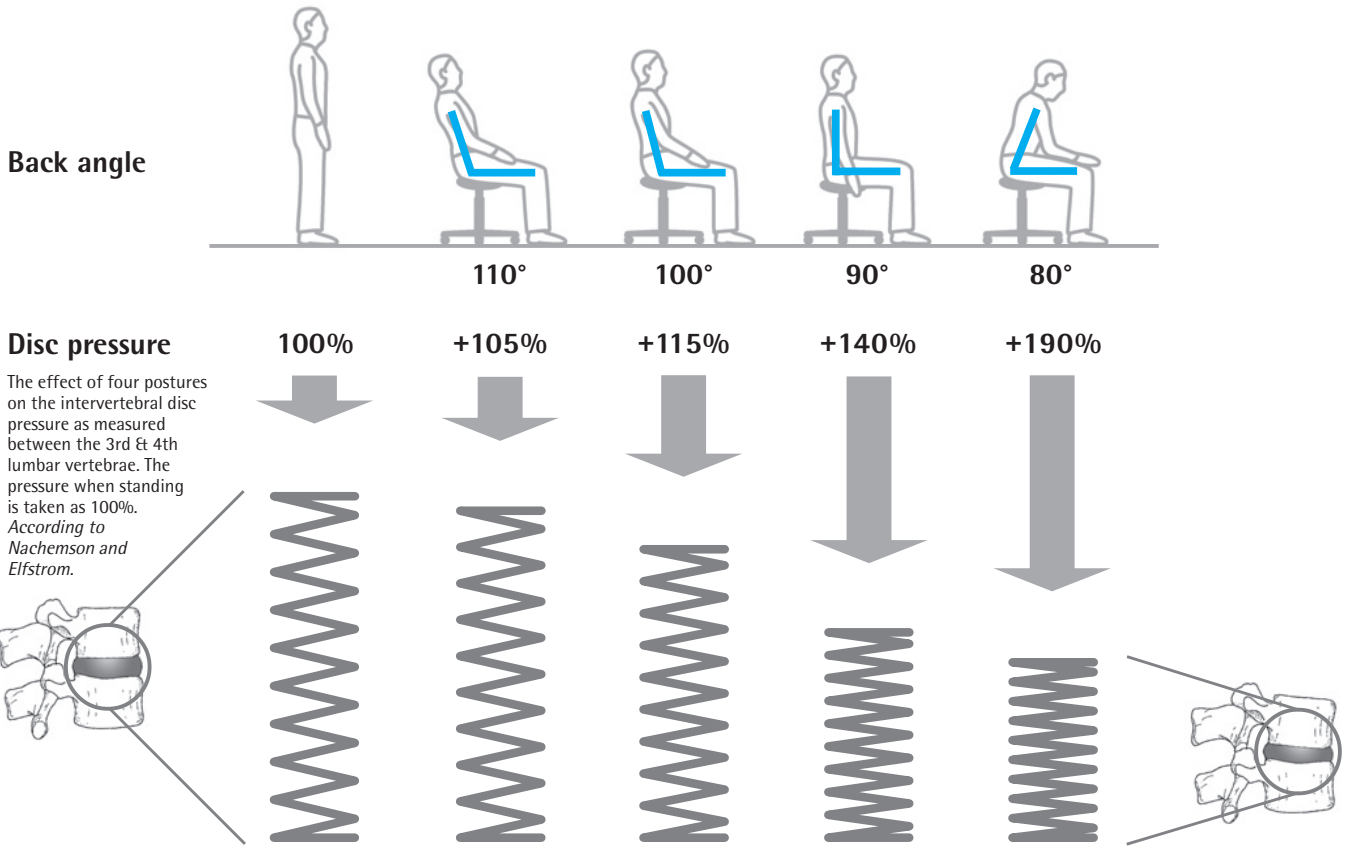


# How posture affects disc pressure



## The dangers of sitting

Changing from a standing to a sitting position makes the top of the pelvis rotate backwards. This flattens the natural lumbar curve of the spine, causing an increased uneven pressure on the intervertebral discs.

On leaning forwards (80° angle) the spine describes a 'C' shape, further increasing lumbar disc pressure (+190%) and extra strain is placed on the back muscles.

## How posture controls disc pressure

The secret of sitting to reduce disc pressure is to encourage the spine to lengthen into its neutral 'balanced' position, as when standing.

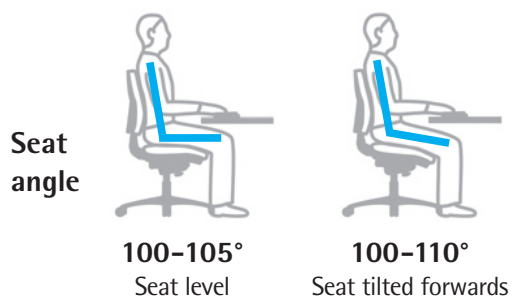
By sitting upright and leaning slightly backwards (100° angle) the top of the pelvis rotates forwards allowing the spine to hold its natural 'S' shape. There is a better balance in the spinal column, with the head centrally positioned over the spinal column, and less activity is required from the supporting musculature. Weight is more evenly distributed across the intervertebral discs.

(1) The use of a forward tilting seat is not advisable for certain medical conditions, if there is any pain do not persist, use the seat in a level position or where comfortable. Initially vary posture regularly to allow muscle groups to adjust to the new position.

## Adopt a new angle while working

Using a keyboard or writing means you have to lean forwards to work. This encourages a slouched unhealthy posture (80° angle).

However, you can achieve a 100° or 110° angle and restore the natural balance to your spine by setting the chair seat level or tilting it slightly forwards<sup>(1)</sup>.



By occasionally adjusting the seat angle while you work you will derive the most benefit, the body is designed for movement. Change your posture to suit the task. To stabilise the lower part of the spine, which in turn controls balance in the upper spine, sit well back in your chair to maintain contact with the backrest.

## Advance Seating designs

Unit H, Field Way, Metropolitan Park, Greenford, Middlesex UB6 8UN UK  
Telephone: +44 (0)20-8578 4308 Fax: +44 (0)20-8578 4352  
E-mail: chairs@asd.co.uk Web site: www.asd.co.uk

**ADVANCE SEATING** designs

