

Posture

Why maintain correct posture?

When maintaining correct posture, the joints, ligaments and muscles of the neck and back are positioned optimally so they are under minimal stress. Maintaining this position reduces the likelihood of back or neck injury, which is vital in today's society where spinal and postural pain are prevalent. Maintaining correct posture helps those suffering from neck or back pain, by reducing stress on injured structures, thereby speeding healing. Furthermore, this optimal spinal position enables your muscles to generate force more efficiently which improves performance in sporting or



recreational activities.

Can I change my posture?

Many people have poor postural habits that have developed over a long period of time (figures 1 & 4). Due to these habits, joints gradually tighten up, restricting spinal movement and affecting posture. As a result, obtaining correct posture often feels difficult and unnatural. This can be changed with practice.

The more time you spend maintaining correct posture, the easier it becomes. This occurs for two main reasons. Firstly, your joints and muscles loosen up with maintaining this optimal spinal position so that there is less resistance from your body. Secondly, your muscle 'memory' improves over time, so that with enough



practice, maintaining this position occurs more naturally.

It is important to remember that your ability to maintain correct posture won't develop over night. Every time you find yourself slouching, don't give up, just think of it as a time you can correct your position and do something productive, thereby gradually breaking bad habits.

What is correct posture?

As a general rule, correct posture (or optimal spinal alignment) can be achieved by ensuring there is a straight line from your ears, to your shoulders, to your hips. Think

about maintaining a tall, long spine as though a piece of string is pulling your head



toward the ceiling (figure 5).

Postural Taping can be an excellent method to encourage optimal posture and can help educate individuals as to how to maintain this position during general activity. The goal with postural taping is to keep tension off the tape at all times therefore ensuring good spinal alignment is being maintained. A Posture Support may also be used in a similar manner.

Here are some recommendations on how to achieve optimal spinal alignment in various positions:

Sitting

In sitting, it is important to have an ergonomic chair which offers firm support thereby allowing your body to maintain correct posture. Your bottom should be situated at the back of the chair and a lumbar support should be placed in the small of your back to assist with maintaining optimal spinal alignment. Your shoulders should be held back slightly and your chin should be tucked in a little (figure 2).



The height of the chair should allow your hips and knees to be at right angles (it is important not to have your knees higher than the level of your hips as this may encourage slouching).

Office setup

When sitting at a computer desk, the goal is to organize your environment so you can easily maintain correct posture (figure 3). Provided you can touch type, your keyboard should be as close to you as possible, encouraging you to maintain this position. If you have to look at the keys, it should be as close as possible so you can look down at the keys (using your eyes only) without having to bend your neck. Your mouse, telephone and other accessories should be as close as possible to prevent you having to lean forwards to reach them. Your computer monitor should be positioned directly in front of you, at or slightly below eye level to assist with maintaining the optimal neck position.

Your chair should also be as close to the desk as possible. Regular breaks from sitting are recommended with standing, walking or lying and should occur regularly enough to prevent any onset of posture related pain.

Standing

In standing, optimal spinal alignment can be achieved by standing against a wall. In this position, your heels, buttocks, shoulders and head should be in contact with the wall, with your eyes and nose facing forwards. Your lower back should have a slight arch. This position should then be maintained upon walking away from the wall (figure 5).

Lying

In lying, optimal spinal alignment can be achieved by lying on your back with a contoured pillow supporting your neck. Your knees may be bent or supported by a pillow for comfort. If lying on your side, it is important to lie as straight as possible



(figure 7)

and to avoid curling up into the fetal position (figure 6). A pillow may be placed



between your knees for comfort.

Lying on your stomach is generally not recommended to achieve optimal spinal alignment since it places considerable stress on your neck. This occurs since you have to turn your head almost 90 degrees to breath. If you have to sleep on your stomach, your posture can be improved by placing your head on the edge of the pillow, and

only turning your head slightly to the side. This allows you to breathe whilst minimizing stress and rotation of the neck.

Choosing a Bed for Correct Posture

When choosing a bed it is important to ensure that the mattress offers adequate firm support around your lower back and hips whilst providing comfort around the shoulders.

You can determine if a mattress is too firm or soft by using the following postural tests:

1) Hand slide test: Lie on your back and slide your hand under the small of your back. If there is no space to slide your hand between your back and the mattress then the bed is too soft. If it's very easy and your shoulders and hips do not feel comfortable then your mattress is too hard.

2) Rolling over test: Try rolling over on the mattress. If it's a lot of effort then your bed is too soft and unlikely to encourage optimal spinal alignment. If rolling over on the mattress is uncomfortable for your hips and shoulders, the mattress is too hard. Choosing the right bed is vital to maintain correct posture whilst sleeping and minimize the likelihood of injury.

Common Postural Exercises

The following postural exercises are frequently prescribed in clinical practice to improve posture (particularly of the neck and upper back) and help to prevent posture related injuries (by giving the body a break from poor postural positions). You should discuss the suitability of these exercises with your physiotherapist prior to beginning them. Generally, they should be performed 3 - 5 times daily provided they do not cause or increase pain:

Shoulder Blade Squeezes

Begin sitting or standing tall with your back straight. Squeeze your shoulder blades together as hard and far as possible without pain (figure 8). Hold for 5 seconds and repeat 10 times.



Figure 8 – Shoulder Blade Squeezes

Chin Tucks

Begin sitting or standing tall with your back and neck straight, and shoulders back slightly. Tuck your chin in until you feel a mild to moderate stretch or as far as possible without pain (figure 9). Keep your eyes and nose facing forwards. Hold for 2 seconds and repeat 10 times.

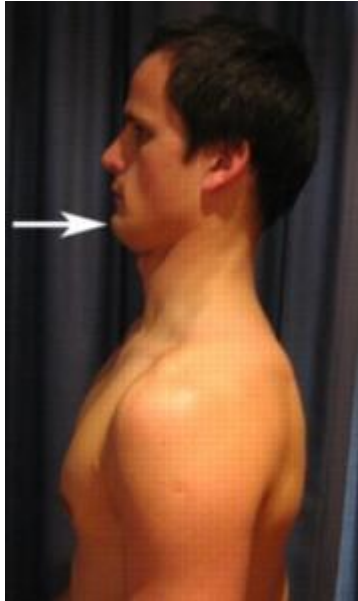


Figure 9 - Chin Tucks

Extension over Chair

Begin sitting tall on an appropriate chair (the top of the back rest should end at the level of your mid back). Place your hands behind your neck and gently arch backwards over the chair, looking up towards the ceiling (figure 10). Move until you feel a mild to moderate stretch or as far as possible without pain. Repeat 10 times.



Figure 10 – Extension over Chair

Keep Active

Keeping active with regular exercise in general life is important to prevent posture related injuries by improving general strength, spinal alignment, core stability, flexibility and subsequent activity tolerance. This is particularly important due to the

increasing trend towards sedentary lifestyles, poor postural habits and obesity in society to date.

You should discuss the suitability of any exercise program with your physiotherapist prior to commencing. Generally exercises can be gradually introduced provided they do not cause or increase pain and provided you do not have any medical conditions. You should aim to perform regular cardiovascular activity such as walking, jogging, swimming, cross trainer etc. ideally in combination with resistance training and flexibility exercises for the major muscles and joints of the body. Clinical Pilates exercises can also be an excellent addition for those aiming to improve their posture as it has a strong emphasis on maintaining optimal spinal alignment during exercises. Better cardiovascular activities for those who spend large periods of time in poor postural positions (such as sitting at a desk) include walking, jogging, swimming, cross trainer (and any other activity whereby the spine is in good posture – cardiovascular activities which involve sitting may not be as appropriate e.g. rowing machine, bike riding etc). General strengthening for the major muscles of the body should be performed in good posture approximately once to twice per week provided they are pain free.

Generally, you should aim to exercise on most days of the week for 30 – 60 minutes or more with these sessions comprising either cardiovascular or strengthening exercises in optimal posture. Stretches for the major muscles and joints of the body should also be incorporated into these sessions to improve and maintain flexibility. Build up activity gradually over time to avoid injury and vary your activities to give your body a break from repetitive stresses. You should discuss the suitability of any exercise program with your physiotherapist prior to commencing.

Posture Summary

- Maintaining correct posture can reduce stress on the spine, prevent posture related injuries, aid injury rehabilitation and improve sporting performance.
- Correct posture can generally be obtained by keeping a tall, long spine with your shoulders back slightly and chin tucked in slightly.
- The more you practise maintaining good posture the easier it becomes as soft tissue flexibility and muscle memory improve
- Organise your environment to suit correct posture rather than moving out of correct posture to suit the environment.
- Try to maintain good postural habits in all positions (such as sitting, driving, lying, walking etc).
- Postural Taping can be an effective way to encourage good postural habits.
- Performing regular postural exercises can help to improve posture and prevent injury by giving your body a break from poor postural positions.
- Keeping active with regular cardiovascular, strengthening and flexibility exercises performed in good posture can help to improve posture and prevent posture related injuries. Pilates exercises may be particularly useful.

If you need expert advice on posture and injury prevention please contact me on +442866328200 or email info@lindaburke.coluk