



VCF PHYSIOTHERAPY & SPORTS INJURY CLINIC

Preventing Low back pain

60- 80% of people with Low back pain have reoccurrences within 3-12 months.

By following these tips you can help to prevent this:

- It is important to maintain a good posture
 - As we age, our body becomes less able to cope with the excess strain placed on muscles and joints whilst in a poor posture. Sitting in an upright posture lowers the strain placed on the lower back and spine, leading to a reduced chance of future injury.

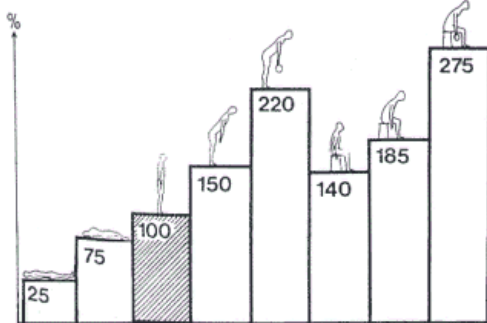


Figure 1: The pressure placed on the spine in different positions

Obtained from:
http://www.fonar.com/news/images/chart_change_pressure.gif

- Figure 1 shows the pressure placed on the lower back in different positions. (Bending and slumped sitting place the greatest strain on the lower back so these should be avoided as much as possible, lifting techniques should be modified to avoid slumping).
- Whilst sitting and standing place your spine in a neutral position, sit upright from your lower back and maintain this position. If you

find this difficult place a lumbar roll or a towel behind your lower back for support

- Avoid sitting for long periods (30-60 minutes).
 - Stand up, stretch and walk around at regular intervals, to prevent your spine from becoming stiff.
- Decrease your weight.
 - Excess weight puts extra strain on the joints in the lower back, leading to increased chance of reoccurrence of back pain.
 - Try watching what you eat and cutting excess fat out of your diet.
 - Reduce the amount you drink, alcohol has lots of calories in it, excessive drinking can lead to large weight gain.

- Use the correct lifting and bending techniques.

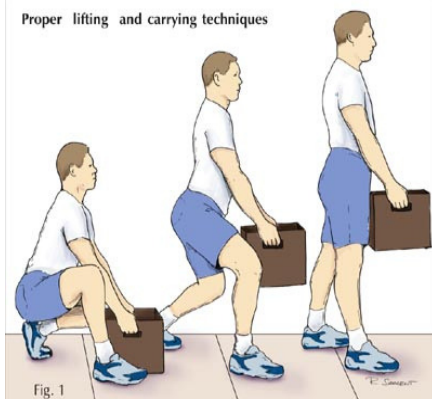


Figure 2: Correct lifting technique.

Obtained from:
http://farm1.static.flickr.com/34/115472545_1fb3ef9a6f.jpg?v=0

- Think about the amount of time you spend bending over for example to do your shoe laces up, pick something up off the floor or brush your teeth. Change your technique to bend from your knees and alter your routine to avoid excessively bending throughout the day i.e. Stand up straight whilst brushing your teeth.
- When lifting use the correct technique, bend from your knees and use your legs to lift, NOT YOUR BACK. A poor lifting technique can put excess strain on the back and increase your chance of injury.
- Try not to excessively bend and twist your back. Rather than twisting, turn your feet and whole body. Alter your routine to look after your back.

- Try to think about using this technique at all times e.g. whilst at work, home, and during all activities such as shopping or gardening.

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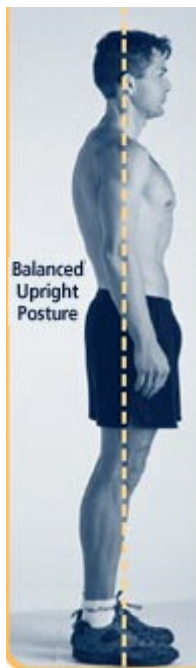


Figure 3: A balanced posture

Obtained from:
<http://www.healthsourcewellness.com/posturedallas.html>

- Keep your muscles strong, maintain your flexibility and increase your fitness levels
 - Maintaining strong muscles takes the strain of our lower back so we are less likely to injury it.
 - If we are strong and fit, our muscles and joints are more able to cope with the physical stresses at home and work, making us less prone to injury.
 - Participate in some form of exercise for 30 minutes 3 times a week. Swimming and cycling are a good form of exercise to keep yourself fit.
 - Continue with your back exercises that you have been taught within physiotherapy.
 - Join a Pilates, yoga, keep fit or circuit training class outside of work.
- Reduce stress
 - Having a positive mental outlook can reduce stress. This can be aided with exercise and maintaining a healthy balanced diet.
 - Getting a good nights sleep is invaluable to your body and mind- this is the time when our body heals and recharges.
 - Deep breathing can help to reduce stress. Breath in and out for 6 seconds 6 times, if you repeat this throughout the day it will help to reset the stress chemicals that are travelling around our body and help to calm your internal processes.
 - Deep breathing is heavily underestimated as a technique for reducing stress. By following a simple routine you can help to exhale many toxins from your body, reset the level of stress chemicals that are travelling around your body and help calm and quieten the internal processes of the body.

Pilates

Pilates is a training workout that achieves flexibility, strength, stability and stamina. Along side this improved physical state it improves your mental well-being. Pilates training allows us more muscle flexibility, stronger mobility, it builds on strengthening the core muscles around your spine, pelvis and lower back to improve your stability and strength in everyday tasks and activities. By giving your muscles more stability and support you can help to reduce and prevent your low back pain.

Pilates Principles

1. **Breathing** – Using a strong, full breath, expand your rib cage from your lower abdomen and diaphragm; complete the movement whilst breathing out.
2. **Centering** – Contract your lower pelvic muscles whilst completing the exercises (see contracting your core).
3. **Control** – Having full control of the whole body. Completing the exercises slowly and controlling the muscles whilst doing so.

Finding your neutral spine and posture

1. **The Spine**- tilt your pelvis all the way forwards and all the way backwards, find the position that is in-between the two, this is your neutral spine. There should be a small very mild curve in your lower back.
2. **The shoulder blades**- Draw the lower points of your shoulder blades back and together. Relax your shoulders down.
3. **The head and neck**- lengthen the back of your neck and draw your chin in gently.



Figure 4: Your neutral spine.

Obtained from:
<http://z.about.com/d/pilates/1/0/E/0/-/-/RestPo200x.jpg>

Contracting your core

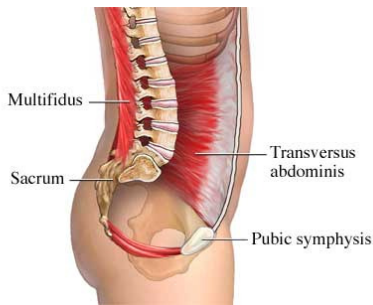


Figure 5: The Pelvic muscles.

Obtained from:
<http://healthlink.uhseast.com/library/healthguide/en-us/images/media/medical/hw/nr55551966.jpg>

- The muscles of your inner core consist of transversus abdominis, multifidus and the pelvic floor muscles- these muscles act as a strong corset around your lower back protecting it from injury.
- The more you contract these muscles the stronger they become, initiating in all activities and helping to prevent back pain in the future.
- To contract these muscles:
- Imagine that you have a belt around your lower stomach below your belly button, draw the belt in underneath your fingers gently and hold the contraction. You should feel a small amount of tension in the lower part of your abdomen. At the same time gently squeeze your bottom hole and draw upwards connecting the contraction at the front and back. Try to gently hold this initially for 10 seconds and repeat 5 times. Repeat this exercise throughout the day, whilst at work and at home. The more you contract these muscles the stronger they will become, gradually increase the time you hold the contraction for.
- Aim to contract these muscles when completing activities that may be painful in your lower back, such as walking, standing, lifting and bending. This will increase the support to your lower back.