



# WHAT OUR PHYSIOS DO WHAT OUR PHYSIOS DO

at

**MENAI DISTRICT PHYSIOTHERAPY  
& SPORTS INJURY CENTRE**

# Low Back Pain & Pilates

## Low Back Pain & Recent Research

- ◆ Low back pain is the most common disability in those aged less than 45 years.
- ◆ In 90% of cases back pain settles within 4 weeks. However, the recurrence rate is extremely high with 60-80% of people suffering a recurrence within 12 months.
- ◆ **Research has shown a significant reduction in recurrence of back pain with specific exercises.**
- ◆ Research in recent years has looked at why people with low back pain seem to be more susceptible to recurrences of low back pain. The results are quite surprising!
- ◆ What they have found is that when you injure your back for the first time, the pain commonly resolves, so that you can return to sport and work but the function and size of the deep muscles that protect your spine do not recover automatically.
- ◆ The two most important muscles that stabilise your spine are the multifidus and the transverse abdominus muscles.
- ◆ These muscles protect the spine from the pull of the bigger, superficial muscles, ie hamstrings and lats. These stabilising muscles don't work particularly hard, maybe 20-30%, but they work for long periods, (ie hours) so they have good endurance. These muscles help you to sustain postures for periods of time, ie. Sitting in the movies, because these muscles become weaker, people with low back pain often have trouble doing this.
- ◆ It is interesting that the research found that the muscle wastes and becomes less efficient specifically at the level and side of the injury.

### **THERE IS GOOD NEWS!**

What the latest research into low back pain is also showing us is that by doing specific exercises we can retrain these muscles to function better and regain their bulk. What that then means is that when the muscles are working better, your back will be more effectively stabilised and less susceptible to re-injury.

- ◆ In one of the studies a questionnaire 1 year later showed that the group who performed specific exercises had a 30% recurrence of low back pain compared to the non-exercise group who had an 80% recurrence.
- ◆ **The implications of the current research is that specific exercises which activate the deep muscles which protect the spine may be necessary to restore normal muscle size and prevent painful recurrent episodes of low back pain.**

## Pilates

The Pilates system of exercises was developed by Joseph Pilates in the 1920s. During World War I. Joseph rehabilitated bed-bound hospital patients, using bed springs for resistance (from which he later devised his equipment) Initially the method was particularly popular with dancers, but now many people with low back pain have found it beneficial. The method has been adapted and modified over the years for people with injuries and in keeping with current research.

The focus is more on control of muscle activity and sub-maximal/variable resistance work. To perform the exercises correctly the pelvis and shoulder girdle need to be stable and well controlled. The load and stability of the position is adapted as the patient improves. With Pilates exercises, progression occurs from a static, antigravity positions to dynamic, less stable, functional positions.

The Pilates method is an ideal way of learning how to stabilise and strengthen the lower back and most importantly, prevent recurrences of lower back pain. Your exercises will be progressed to make them more difficult as your stability improves.

At **Menai District Physiotherapy & Sports Injury Centre**, we will give you exercises to help strengthen your back after injuring it. You could also be given these types of exercises to improve your posture and prevent injuring your back. All physiotherapists at our clinic are highly trained in stability/Pilates-based exercises.

## Pilates and the Athlete

Recently there has been an increased focus with athletes on developing "core strength" through Pilates and similar programs. Ballet dancers have been doing Pilates for years to keep them in shape and to improve their balance. But it is becoming more popular with other athletes as sprinters and football players are starting to use the exercises as part of their cross training.

At the athletes village at the Sydney Olympics the athletes gym had Pilates equipment for them to use.

*Athletes should aim for a balance of core stability, strength and cardio-vascular training to prevent trunk related injuries (e.g. hamstring tears). A stable trunk provides better balance and force production at high speeds, so potentially improving performance.*

**For more information contact:  
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