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# PHYSIOTHERAPY WORKS THE EVIDENCE

# LOW BACK PAIN

Low back pain is a common health problem which affects up to 80%<sup>1</sup> of the population at some stage in their life.

The 2010 Global Burden of Diseases Study<sup>2</sup> found low back pain was the leading cause of disability adjusted life years (DALY) in Australasia.

In New Zealand ACC spends in excess of \$130 million a year treating back pain related injuries.

To rationalise the treatment of low back pain, evidencebased clinical guidelines have been developed in many countries.

## Treatment

The New Zealand Acute Low Back Pain Guide<sup>3</sup> acknowledges low back pain is common and recommends:

- ✓ Reassurance
- Staying (or becoming) physically active is important
- Early return to work is helpful although advice to facilitate this is often required
- ✓ Use of mild analgesia
- ✓ Manipulation, especially in the first 4 - 6 weeks.

## Who is at risk?

Manual workers and health workers whose job involves a lot of bending and lifting are traditionally the group at greatest risk. However poor posture and prolonged sitting are increasing the incidence amongst office workers.

Other risk factors can include smoking, obesity, inactivity, a previous trip or fall and pregnancy.

# How physiotherapy can help

#### 1. Reassurance

A physiotherapy assessment will screen for any red or yellow flags and, if no problems are identified, reassure the person there is nothing mechanically or medically wrong with their back. A physio will provide advice, which may include specific strengthening and flexibility exercises to assist the person to manage their back pain including education on how to take care of their back to prevent (or cope with) a reoccurrence.

2. Staying active

Supporting people to become physically active is the overriding goal of the physiotherapy profession worldwide. A physiotherapist will help patients develop a safe and effective physical activity programme to improve overall health.

3. Return to work

Physiotherapy New Zealand was one of the signatories to the recent consensus statement on the health benefits of work<sup>4</sup>. Physiotherapists are also key providers of the ACC return to work and stay at work programmes, working closely with the GP and employer to achieve a sustainable return to work. To support returning to work the physiotherapist may provide training for proper lifting, bending, sitting and performing specific tasks at home and at work.

4. Mild analgesia

Physiotherapists cannot prescribe medication. For the treatment of low back pain mild analgesics are seen as the drugs of choice.<sup>5</sup> If medication is required the physiotherapist will recommend the person talks to their pharmacist or GP.

#### 5. Manipulation

New Zealand physiotherapists have led the world in the treatment of low back pain with the development of manual therapy techniques (manipulation and mobilisation). The methods of physiotherapists such as Robin McKenzie and Brian Mulligan are known, taught and used worldwide. Physiotherapists continue to use manual therapy as part of their treatment choices. The development of clinical prediction rules<sup>6</sup> for low back pain has helped identify the group of people for whom manual therapy is the most beneficial.

Early access to physiotherapy has been shown to improve longterm outcomes and decrease healthcare utilisation.

# **Prevention**

Physiotherapists are active in educating the public about the prevention of low back pain and are present in workplaces providing advice on strategies to promote injury prevention. This includes assessment of work stations for office workers, lifting and handling skills for manual workers and the correct use of hoists and other equipment for health workers.

# Physiotherapy as a cost saving

Physiotherapy is a cost-effective intervention for low back pain. By reinforcing prevention and self management physiotherapy can prevent the person accessing health services in the future. Surgery is seldom the treatment of choice for low back pain.<sup>7</sup>

## The evidence

Early access to physiotherapy for assessment, reassurance, advice on self management and treatment has been shown to improve long term outcomes and decrease healthcare utilisation.<sup>8</sup>

## Conclusion

Physiotherapy is a proven, costeffective treatment for low back pain. Physiotherapy focuses on improving function and giving the person the ability to manage their own back pain.

#### References

<sup>1</sup>Balaque F, Mannion AF, Pellise F & Cedraschi C (2012) Nonspecific low back pain *Lancet* 379 (9814); 482-491

<sup>2</sup>Murray CJL et al (2012) Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1999 – 2010: a systematic analysis for the Global Burden of Diseases Study 2012. *Lancet* 380 (9859); 2197-2223

<sup>3</sup> ACC & NZ Guidelines Group (2004) New Zealand Acute Low Back Pain

<sup>4</sup> Australasian Faculty of Occupational and Environmental Medicine (2011) Australian and New Zealand Consensus Statement on the Health Benefits of Work.

<sup>5</sup> Roelofs PDDM, Deyo RA, Koes BW, Scholten RJPM & van Tulder MW (2011) Non-steroidal anti-inflammatory drugs for low back pain *Cochrane Review* 

<sup>6</sup> Flynn T et al (2002) A Clinical Prediction Rule for Classifying Patients with Low Back Pain Who Demonstrate Short-Term Improvement With Spinal Manipulation *Spine* 24; 2835-2843

<sup>7</sup> Chou R, Baisden J, Carragee EJ, Resnick DK, Shaffer WO \$ Loesser JD (1976) Surgery for low back pain: a review of the evidence for an American Pain Society Clinical Practice Guideline. *Spine* 34 (10):1094

<sup>8</sup> Fritz JM, Childs JD, Wainner RS & Flynn TW (2012) Primary Care Referral of Patients With Low Back Pain to Physical Therapy *Spine* 37 (25): 2114-2121

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