Spine Service Newsletter

Care of the Spine
Backed by Research

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## Introduction

Chronic low back pain is a leading cause of disability, suffering and work absenteeism with nearly four million Australians reporting back pain each year resulting in direct costs of AUD 1.2 billion and indirect costs (lost productivity) estimated at AUD 9 billion.

This newsletter aims to promote communication between general practitioners and other health professionals and the team at Spine Service who deal with this challenging problem. For more information about Spine Service log on to www.spine-service.org.

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## A holistic approach to low back pain

Disc degeneration is the leading cause of chronic low back pain (CLBP) followed by facet arthritis. Problems with ligaments and muscles can also cause chronic pain. As this is a progressive condition, we label patients according to the clinical and radiological findings. (Table 1)

The treatment philosophy at Spine Service involves a step-ladder approach recognizing the fact that besides the organic and physical factors involved, psychological and social factors also play a role in CLBP and these are best managed through a multi-disciplinary approach. Most patients are offered physiotherapy as first step in the treatment ladder. Physiotherapy and postural training help to strengthen the back and abdominal muscles, giving greater support and stability

# A holistic approach to low back pain

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This may be supplemented with spinal injections of cortisone and local anaesthetic. Psychological counseling is also provided to develop effective pain coping strategies. Chronic pain management under the expert supervision of a Pain Management Physician is yet another option.

If non-operative modalities fail to provide relief, surgical solutions like spinal fusion and disc replacement are considered in a small number of patients.

We are uniquely positioned to offer physiotherapy, spinal injections, psychological counseling, pain management, spinal education and surgical consultations under one roof.

## Low back pain

**Early stage disc disease**

- Internal disc disruption
- Disc herniation

**Late stage disc disease**

- Disc degeneration
- Spinal canal stenosis
- Degenerative scoliosis

# News from the World of Spine

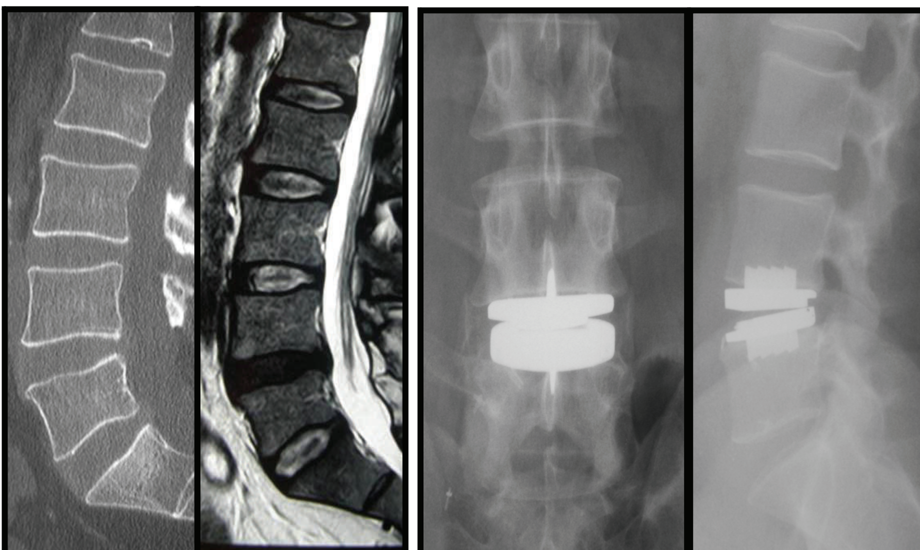
A prospective, randomised, multi-centre trial compared the results of lumbar total disc replacement (TDR) to spinal fusion for patients suffering with low back pain. (Zigler et al. Spine 2007) 286 patients were randomly allocated to undergo disc replacement or fusion surgery and were followed-up for two years. TDR was found to be safe and efficacious and in properly chosen patients, shown to be superior to fusion. Presently, single level lumbar TDR is funded by medicare.

Similarly, another prospective randomised multicentre trial (Murrey et al Spine J 2009) compared the outcomes of disc replacement versus fusion in the cervical spine (neck). 209 patients were randomly allocated to undergo fusion and disc replacement and were assessed regularly two years. and evaluated for pain intensity, disability and functional capacity. Cervical TDR was safe and effective and equivalent or superior to fusion surgery. Cervical TDR is not presently funded by medicare and is used selectively for work-cover patients.

## Highlights

- Lumbar and cervical disc replacement is safe and efficacious
- Disc replacement retains movement at the affected level unlike spinal fusion
- Single level lumbar TDR is funded by the medicare
- Cervical TDR is not funded by the medicare at present

# Case Discussion



**Pre surgery CT scan and MRI scan**

**Post surgery xrays showing the artificial disc in place**

Mrs B, a 48 year old sales person presented with two years of worsening low back pain. She had difficulty in sitting for more than ten minutes with significant restriction of day to day activities. Her scans showed disc degeneration at the L4-L5 level.

Having failed extensive non-operative care Dr Ashish Diwan performed an L4-L5 disc replacement followed by intensive rehabilitation at Special Spinal Rehab. At the three month mark, Mrs B reported no pain and had stopped all pain medications and at 6 months Mrs. B was working full time and taking part in recreational activities.