



FULLERTON
HEALTHCARE

EDITION 3

FULLER HEALTH
for you



Do I have a slipped disc?

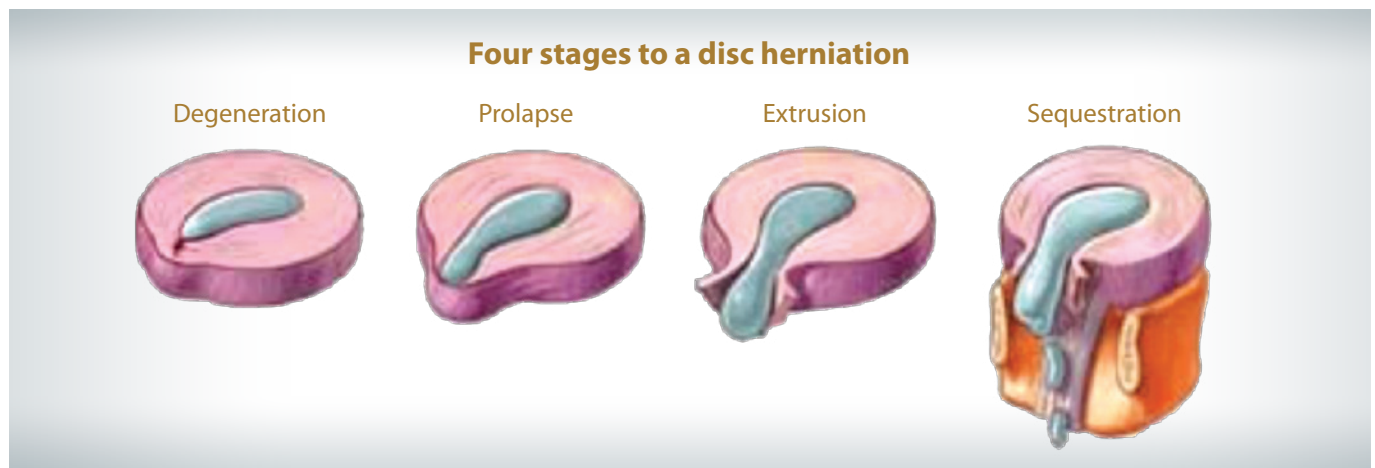
by Dr Chua Soo Yong

Consultant Orthopaedic Surgeon
A Fullerton Healthcare Network Specialist

Is all back pain caused by “slipped disc”?

Not all back pain is caused by a slipped disc. A slipped disc in layman terms usually refers to a disc in the spine in which the nucleus or “gel” material in the disc has protruded in various stages. This could be from a mere tear in the “covering” or annulus of the disc, to a complete disc prolapse and severe compression onto the neural elements.

Types of slipped discs



What symptoms suggest that I have a slipped discs?

Depending on the severity of the slipped disc, the symptoms might vary. However, the main discerning symptom is whether there is any associated pain down the leg (arm) with the back (neck) pain. If there is a significant radicular symptom or pain down the limbs, then there is quite a high possibility of compression of the nerve.

Most slipped discs have a troubling component of discogenic symptoms. This refers to pain originating from the disc itself. Such symptoms tend to be worse when the intradiscal pressure; pressure in the disc is increased. This would mean that coughing, sneezing, laughing, bending forwards, sitting, or going to the toilet tends to worsen the pain in the back or neck.

CONTINUE ON NEXT PAGE >

How can I know if I have a slipped disc?

If the symptoms are severe and suggest very much a slipped disc, the only way to certainly diagnose it is a Magnetic Resonance Imaging (MRI) scan.

If my MRI shows a slipped disc, do I need operation?

Depending on the severity of the condition, most slipped discs generally do not require surgery. Because the injured disc may be old or not causing any symptoms, not all slipped discs seen on the MRI may be the reason for the patient's pain symptoms.

If I don't wish to have surgery, what are my options?

Fortunately a good 90% of slipped discs do not require surgery. Many patients do very well with conservative or non-surgical treatment of rest, physiotherapy and medications.

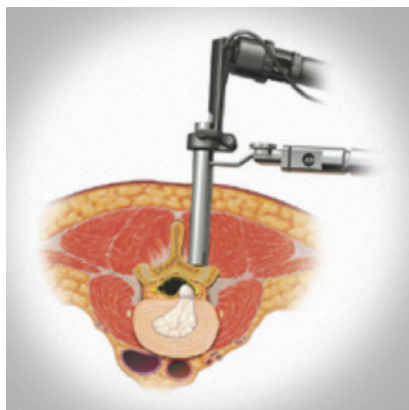
If I require surgery, what are my options?

Spine surgery has evolved at a pace that is on par with today's technology. The options that are available to Spine Surgeons are myriad. Each option has its advantages, disadvantages, limitations as well as indications.

Types of surgery for slipped discs:

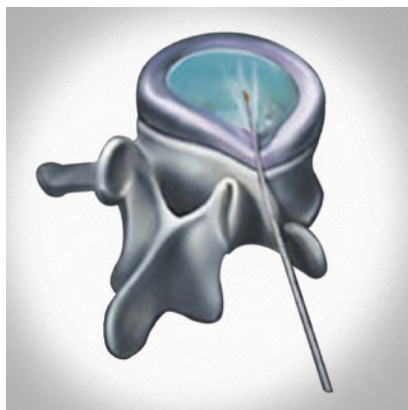
Nucleoplasty - Minimally Invasive

A tiny radiofrequency/coblation probe is inserted into the disc, and this removes the disc material and results in a volumetric reduction in the disc pressure with resultant shrinkage of the protruded disc, hence an indirect form of decompression.



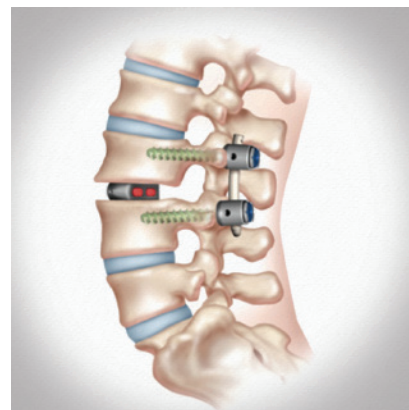
Discectomy - Open or Minimally Invasive

Special spinal instruments are used to physically remove the disc material that is compressing on the nerves. Typically it is done under a microscope due to the fine and delicate work required to avoid damaging nerves.



Decompression with Fusion

Sometimes, screws and implants may be required to be placed in the spine to ensure stability or longer term pain relief, besides removal of the disc material.



What can I do to help myself to prevent a slipped disc?

Posture in everyday settings, work related ergonomics, and proper lifting and carrying of loads will go a long way to keep one's back healthy. Exercises to improve the strength of one's core muscles will also add to the dynamic stability of one's back.



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Dr Chua is a practising orthopaedic surgeon and spine specialist in private practice. He also has been appointed as visiting consultant to various restructured hospitals in Singapore. He completed his surgical training in Singapore and advanced his spine surgery repertoire at The Krembil Neuroscience Centre, University of Toronto. Besides honing his technical expertise in complex spinal surgery, he was also involved in spinal cord injury and regeneration research and published several key articles and invited editorials in renowned international spine journals. He continues to serve on the editorial board of several peer reviewed journals.

Why is my hand numb?

by Dr Tan Ter Chyan

Consultant Hand Surgeon

Compressive Nerve Disorders in the Upper Limb

This is most likely from the interruption of blood supply to our affected limb and usually goes away quickly. However, if this persists or happens frequently such that it affects our function and lifestyle, it will be a problem.

The 2 most common compressive nerve disorders in the upper limb are Carpal Tunnel Syndrome and Cubital Tunnel Syndrome. These involve the Median and Ulnar nerves respectively.

Signs and Symptoms of Nerve Compression

These include sensation changes and movement loss.

Sensory Dysfunction: Constant or Intermittent

- Pain
- Paraesthesia – Numbness with changed feeling
- Dysesthesia – Unpleasant feeling
- Anaesthesia – No feeling

Motor Dysfunction

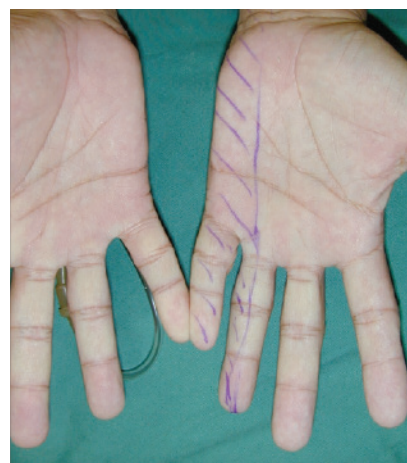
- Clumsiness
- Weakness
- Wasting



Wasting of the Abductor Pollicis Brevis



Sensory loss in the distribution of the Median Nerve (Left) and Ulnar Nerve (Right)



Carpal Tunnel Syndrome (CTS)

Carpal Tunnel Syndrome (CTS) is the compression neuropathy of the Median Nerve at the wrist. The clinical presentation of CTS include pins and needles, numbness in the distribution of the median nerve. The area of numbness usually involves the thumb through to the ring finger. In severe CTS, there will be wasting of the thumb base muscle bulk.

Management of Carpal Tunnel Syndrome

The non-surgical management of CTS include the use of wrist-based splints, with or without activity modification e.g. review of postures, exercise and work done. Oral medications are generally not effective except for oral steroids, which showed an improvement of symptoms (Chang, Neurology 1998). The use of steroid injections into the carpal tunnel may lead to temporary but excellent relief of symptoms.

The surgical management of CTS is the mainstay of treatment in diagnosed CTS. There are 3 main techniques: Open surgery, Mini-open and Endoscopic surgery. They have generally been proven to be effective in the resolution of symptoms.

Cubital Tunnel Syndrome

Cubital Tunnel Syndrome (CuTS) occurs when there is a compression of the ulnar nerve around the elbow. It occurs where laymen call the “funny bone”.

Patients complain of numbness, and tingling in the little and ulnar half of the ring finger. There is also associated weakness of grip with possible hypersensitivity on palpation. They may have discomfort along the course of the ulnar nerve at the elbow, and direct palpation could elicit a positive Tinel’s sign i.e. the “electric shock” feeling.

Management of Cubital Tunnel Syndrome

The management of CuTS include non-surgical and surgical methods. Conservative treatment with therapy could benefit a patient with minimal lesions and occasional symptoms of paraesthesia. “Wrap while you sleep”, where the elbow is wrapped to prevent inadvertent prolonged flexion while asleep, and antiflexion splints can prevent the condition getting worse. Overall activity modification preventing excessive flexion of the elbow will help whereas steroid injections have little effect and analgesia.

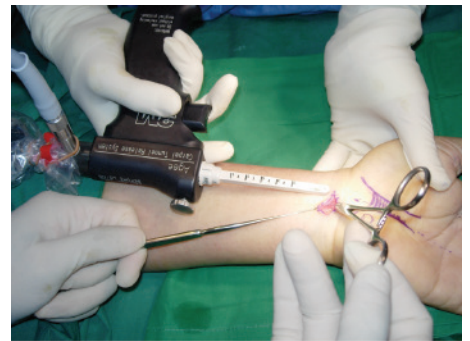
Surgery for CuTS can be open or minimally invasive. Open surgery has 2 options: a simple decompression or an anterior transposition of the ulnar nerve at the elbow.

Minimally invasive surgery is performed using an endoscope. In cases where there is no popping out of the nerve and the nerve is stable in its correct position, the minimally invasive method is now the preferred option.

Open Carpal Tunnel Release



Wound in an open CT Release: scar along skin crease in line with middle finger



Endoscopic Carpal Tunnel Release (Agee system)

Endoscopic surgery



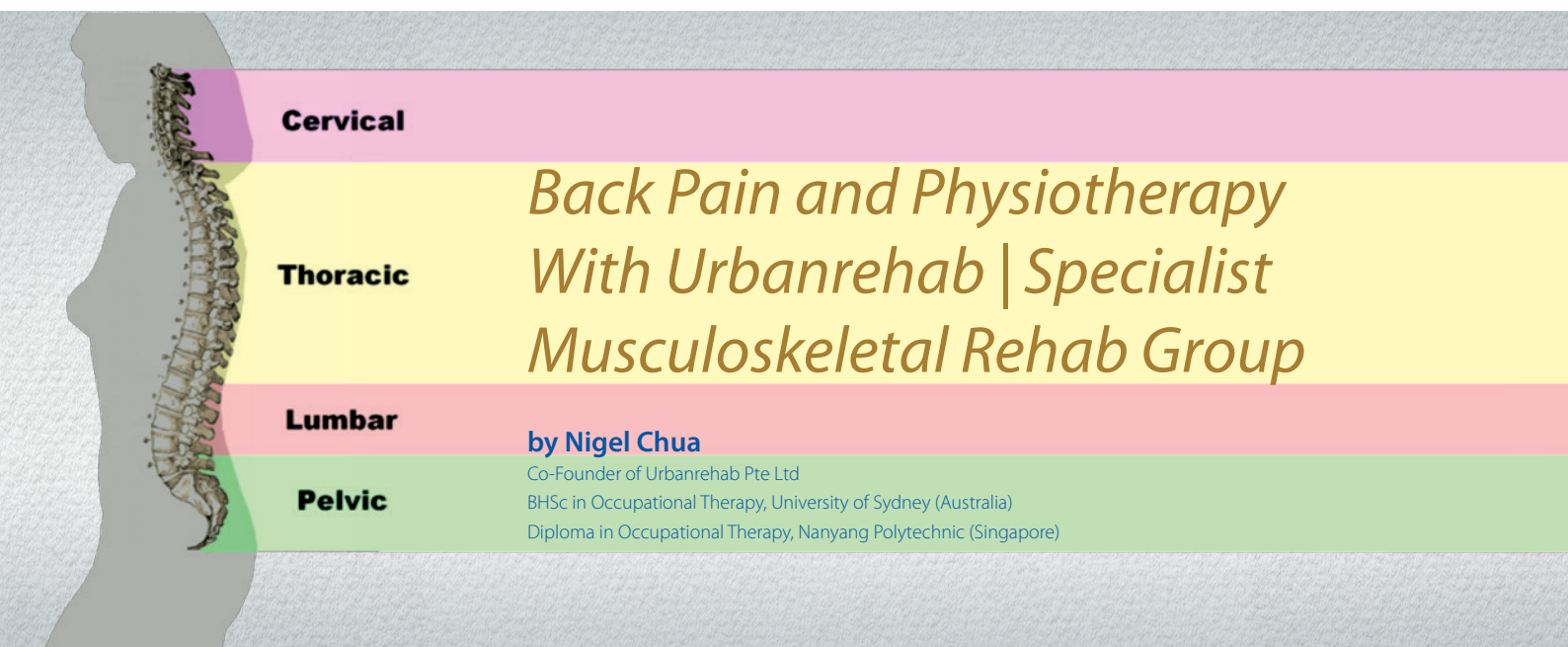
Dr Tan Ter Chyan

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Dr Tan Ter Chyan graduated from the Royal College of Surgeons in Ireland, Dublin in 1995, and became Member of the Royal College of Surgeons of Edinburgh in 2001. He was awarded the Master of Medicine, Orthopaedics by the National University of Singapore in 2002. He obtained his specialist accreditation by the Ministry of Health (Singapore) as a Hand Surgeon in 2005. He was awarded the Higher Manpower Development Program for 2006 and was clinical fellow at the Royal North Shore Hospital in Sydney in 2007 with the Department of Hand Surgery and Peripheral Nerve Surgery, University of Sydney.

Dr Tan worked as a surgeon in the Department of Hand and Reconstructive Microsurgery, National University Hospital from 2002 to 2012. Dr Tan was a specialist hand surgeon in the Department of Hand and Reconstructive Microsurgery (HRM) from 2005 to 2007 and consultant from 2007 to 2012. He was the Postgraduate Director and was involved in training the advanced Hand Surgery trainees in the national program. He was also the first Associate Program Director for the national residency program in Hand Surgery.



Cervical

Thoracic

Lumbar

Pelvic

Back Pain and Physiotherapy With Urbanrehab | Specialist Musculoskeletal Rehab Group

by Nigel Chua

Co-Founder of Urbanrehab Pte Ltd

BHSc in Occupational Therapy, University of Sydney (Australia)

Diploma in Occupational Therapy, Nanyang Polytechnic (Singapore)

Backaches can be caused by a multitude of factors and problems. Often, they can be pinpointed to spinal disc issues, spinal joint issues (vertebrae to vertebrae), and back muscle problems such as muscle pull, muscle-tendon joint imbalance, or ligament strain. If it is a pure physical (also known as biomechanical) problem, and if it is an initial or first time problem, then it is relatively easier to treat.

Unfortunately, people who suffer from pain frequently have that pain either because of a back injury or because of a long term poor posture that led to repetitive physical strain on the spine and its tissues over an extended period of time. Of course, there are times when the pain in the back can be caused by infection, inflammation and progressive diseases.

Lower Back Strain / Lumbar Muscle Strain

Often, back pain is caused by pulled or strained muscles and ligaments of the back. This can be attributed to sudden awkward movements or improper lifting technique of heavy and light objects. One thing to note – lower back pain can be traced to lower back strain issues, nerve irritation, lumbar nerve radiculopathy and other related lower-back problems of the bones and joints.

Sciatica

One of a common back injury and problem is slipped disc, where the "slippage" or "bulging" of the disc between the vertebrae slides out and compresses on the nerves that run alongside it, causing "sciatica" - radiating pain that travels and shoots down one's thighs, legs and calves. Sometimes people report numbness, or the sensation of pins and needles.

Ruptured Disc

Sometimes, the intervertebral disc that is located between the spinal joints may rupture due to a variety of reasons and factors. This leads to inflammation, followed by severe pain and swelling. Treatment for back pain caused by a rupture of the intervertebral disc depends largely on the cause of the injury and the patient's

pain tolerance - in some cases, patients may opt for no operation, no or minimal medication. In severe cases, immediate emergency operation may be required depending on the physician's clinical assessment.

What would a typical physiotherapy session for back pain be like?

First and foremost, we would want to provide pain relief for the patient. For this, we may employ a variety of physiotherapy approaches in our Singapore clinic, and they may range from cold compression to decrease muscle spasms, ultrasound therapy to accelerate healing for pulled back muscles or ligaments, soft tissue management to decrease muscle spasms and knots, computerized traction to decrease the muscle spasms and to stretch the spinal joints and muscles and more, at our physiotherapist's discretion.

Once we have gotten the pain to a more manageable level, we would start with differential diagnoses to find out the exact cause and diagnosis. Focusing on the core problem will be our number one physiotherapy goal. Just taking away the pain is a start, but if we don't manage the core problem, the pain will just come back in a matter of time.

Urbanrehab | Specialist Musculoskeletal Rehab Group

Urbanrehab is Singapore's first and only multi-disciplinary musculoskeletal rehab group consisting of senior and experienced specialist rehab practitioners.

Some of the core reasons why patients choose to see an Urbanrehab therapist:

- **We focus on going deeper to find the source and core of the problem.** Pain is usually an indicator/symptom of a deeper issue. Hence, treating the pain (symptoms) feels good, but doesn't resolve the core problem, so the pain may keep coming back. An example is a patient with back pain because of poor core strength - what we will do in this case is that we will first provide pain relief and thereafter, work on the root problem of poor core strength to ensure that the pain doesn't come back.
- **We provide hands-on techniques and manual therapy.** This includes customized exercise programs for injury management and prevention.
- **One-to-one, every time.** Our therapists are dedicated and will provide you one-to-one rehabilitation, every time. This is a non-negotiable approach, because it provides the highest and quickest level of clinical and rehab outcomes (meaning you recover faster and go back to working life and sports better).

Urbanrehab Services

1. Physiotherapy

- Sports, Spine and Musculoskeletal Physiotherapy
- Pilates Reformer
- Ultrasonic Therapy
- Hot Packs
- Neck and Back Computerized Traction

2. Hand Therapy

- Customized splinting (lightweight cast) for fingers, hand and wrists
- Moist Heat Wax Bath
- Ultrasonic Therapy
- Hot Packs

3. Chiropractic & Chiropractor

- Activator
- Vibrocussor
- Hot Packs
- Neck and Back Computerized Traction

4. Podiatry

- Customized orthotics insoles
- Callus and corn management
- Running gait analysis

5. Traditional Chinese Medicine

- Acupuncture
- Gua Sha

6. Sports and Conditioning Training

7. Sports Massage



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Urbanrehab-Fullerton Musculoskeletal Centre

Services

1. Musculoskeletal Consultation
2. Platelet Rich Plasma (PRP) Injection
3. Visco-supplementation Injection (Synvisc and Orthovisc)
4. Digital X-Ray diagnostic services (same day / instant reporting for acute musculoskeletal injuries)
5. MRI diagnostic Services
6. Physiotherapy Services

Who Dr Ong Treats / Suitable Patients

- Patients with musculoskeletal, orthopaedic and sports injuries or pains
- Acute exacerbation of a chronic disease
- Assessment and treatment of musculoskeletal disorders where diagnosis is uncertain and serious pathology is not suspected

For appointments: Call/WhatsApp/SMS to 97402164 or 98352929. For more info visit www.urban-rehab.org

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For enquiries, email nigel@urban-rehab.org and we will do our best to support you.

