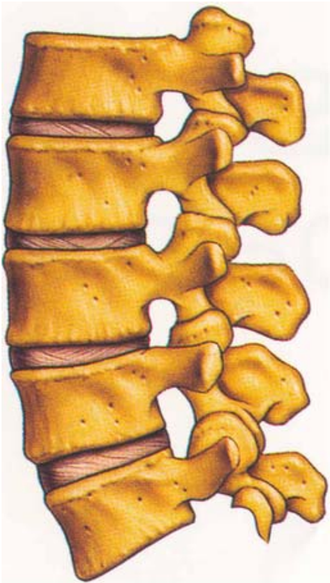

What is Back Pain?

Figure.1 Drawing illustrating basic structure of the back

Low back pain is one of the most common reasons for patients presenting to their doctor. Four out of five people will, at some stage in their life, have at least one episode of disabling low back pain. In the majority of these cases, this pain can best be described as "non specific low back pain".

This means that X-rays and scans do not reveal a definite cause for the pain and it is likely to be benign and self-limiting in nature.

Nine times out of ten, severe episodes of back pain will recover substantially within two weeks. The remaining one out of ten may have significant ongoing problems.

Investigation

Over 90% of patients with low back pain will have no definite or "demonstrable" cause for their pain on any investigation. It is rare for there to be a spinal condition coming on without major injury, which requires urgent investigation. Investigation is largely used to exclude uncommon causes of back pain or where there are definite signs of injury to nerves. X-rays

or scans may or may not reveal the cause of back or neck pain. The majority of changes seen on these tests are part of normal ageing or wear or tear. It is convenient however, usually misleading to attribute back or neck pain to something described in an X-ray or CT scan report. Magnetic Resonance Imaging (MRI) is the most accurate test available to evaluate the spine.

Figure.2 Early method for treating back pain. Precursor for some types of physical therapy

Management

The overwhelming majority of patients with confirmed non specific back pain benefit by early mobilisation and physical therapy. There is no evidence to support the use of bed rest, traction or the avoidance of normal activities in managing back pain. It is rare for the continuation of normal activities to cause injury to the spine. Patients who manage their back pain in the best possible way are those that:

1. Understand that back pain per se is not harmful or potentially disabling.
2. Do not engage in avoidance behaviour of normal activities, concerned that they may cause pain.
3. Do not withdraw from normal social activities or appropriate work activities.
4. Do not rely on passive treatments (i.e. treatments done by other people) however; rely on active participation in exercise programs to improve strength and flexibility.
5. Avoid long-term use of drugs to manage their pain.

Medication

Medication may be appropriate for short-term management of severe low back pain. There are various medications available, ranging from Panadol through to narcotic medicine such as Panadeine Forte, Endone and Digesic. Other drug types are anti-inflammatory medications such as Brufen, voltarenor muscle relaxants such as Valium.

Muscle relaxants and narcotic analgesics should be avoided beyond a period of two weeks. The beneficial effects of these drugs wear off within this time and they can have significant long-term side effects with ongoing use.

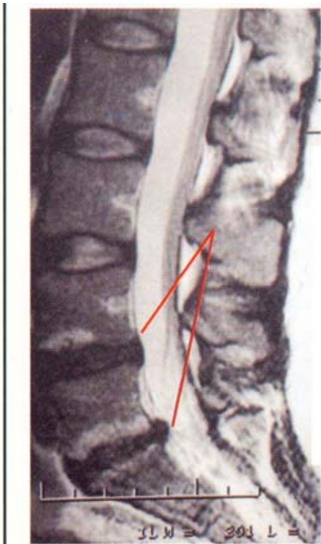

Figure.3: MRI of lower back showing degeneration of the lowest two discs. This is a common finding on patients and may not relate to their pain. There is no pinching of nerves in the spine. Not suitable for surgery.

There is generally no place for injected medication. Anti-inflammatory drugs or Panadol may be used for a longer term with fewer side effects.

Whiplash

Neck injuries typically following car accidents are particularly troublesome. There is only rarely any abnormality on an X-ray or Scan. The injury relates to the joints, muscles and other soft tissues.

There is almost always no role for surgery or any other "intervention".

Although disabling from the point of view of pain, there is usually little chance of further damage to the spine with normal activities. Treatments must be aimed at increasing and maintaining neck movement. There is generally no role for the use of a neck collar.

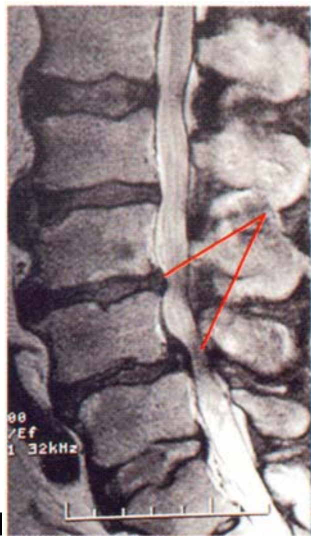

Figure.4: MRI of the spine showing marked narrowing due to degeneration.This causes leg pain typically while walking. May benefit from surgery

Physical Therapy

There are many types of physical therapy available, ranging from physiotherapy through to chiropractic therapy and osteopathy. Different therapists may benefit each individual patient. In the long run it is the therapist that encourages and facilitates activity, exercise, flexibility, strength and weight control, who is the most effective. Forced manipulation of the neck can be hazardous

Injections

On some occasions, injection of steroid medication such as cortisone, in association with long acting local anaesthetic into joints in the spine may be effective in gaining medium-term relief of pain of the source of that pain is felt to be the joint. Injections around inflamed nerves may also be beneficial. This is a low risk treatment, which may provide significant relief while a process, which may resolve anyway, takes its course.

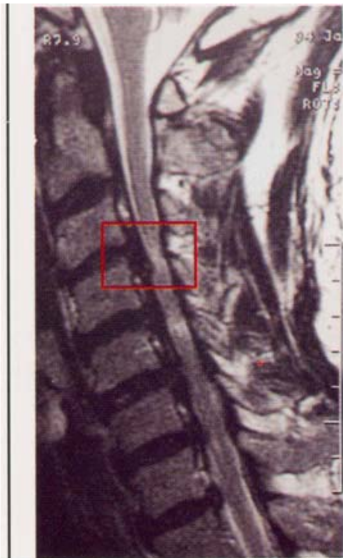

Figure.5: Degeneration and narrowing of the spine in the neck causing pressure on the spinal cord. This is a situation where surgery may prevent severe weakness developing in the arms and legs. Often will be present without significant pain.

Surgery

Surgery is reserved for those patients with nerve compression demonstrated on investigations, such as CT or MRI scans, along with severe unremitting pain related to that nerve compression and/ or evidence of significant nerve injury. In general, patients should be given a trial of physical therapy prior to consideration of surgery. *As* a rule, the length of this trial to be at least six weeks, beyond that time, it tends to be an issue of personal preference, where one weighs up the potential benefits of surgery versus the potential risks of surgery. Severe weakness or loss of bladder control may be a reason for urgent surgery.

Benefits of Surgery

While one cannot generalise about every patient and every situation, as a rough guide, most people offered surgery would have approximately a 90% chance of significant improvement in their symptoms if these symptoms were largely related to pinching of a

nerve. In general this usually means pain in the arm or leg.

Surgery of the spine is rarely indicated as a treatment for non-specific back pain or pain around the spine itself It is unlikely to make such pain worse, but with

any surgery, there is the chance that reports of pain around the spine after surgery may be greater than before the surgery. Again in general, this risk is approximately 3%.
Pain may persist or recur in the arm or leg despite surgery, even if the nerve is no longer pinched. Therefore, about 7% of patients undergoing surgery will have no benefit. 3% will say they are worse and 90% will say that the surgery was worthwhile.

Risks of Surgery
In patients undergoing microdiscectomy, the risk of recurrence of a disc protrusion is approximately 5 - 10%. In patients with reasonable general health, the risk of a significant bad complication of the surgery is in the realm of 1 %. This may be related to bleeding, anaesthetic, infection, nerve injury or other. The risk of death or spinal cord injury is very low.

It must be remembered that surgery is not a cure-all. It only removes pressure from a nerve, however, the patient is still left with the same spine and usually a healing injured disc. Ongoing back care is essential. Unrealistic surgical expectations can lead to unsatisfactory outcomes.

Long Term

Sometimes severe back pain may persist for many months or even years. It is more common for there to be "good times" and "bad times" over the years. There is no reason for pain to get relentlessly worse with time. It is important to remember that with long term back pain, activity may cause pain, but will rarely cause injury. Good physical therapy will lessen the severity, frequency and duration of painful episodes. Avoidance of inappropriate surgery and long-term drug therapy leads to a better outcome.

Mr Greg Finch FRACS Spine Surgeon Orthopaedic Surgeon

The information in this website is provided to reinforce the advice you receive from your own doctors and is not intended to replace discussions with your doctor. We hope you find our website Informative and Interactive to meet your inquiries.