

A PATIENT GUIDE TO SLIPPED DISCS



Low back pain is very common, affecting some 80% of the entire population sometime during their lives. According a study done here in Singapore in 2000, at least 1 in 5 adults suffered from back or neck pain within the last six months. One cause of back pain is “slipped disc”, a misnomer that confuses when one first confronts that possibility.

WHAT IS A SLIPPED DISC?

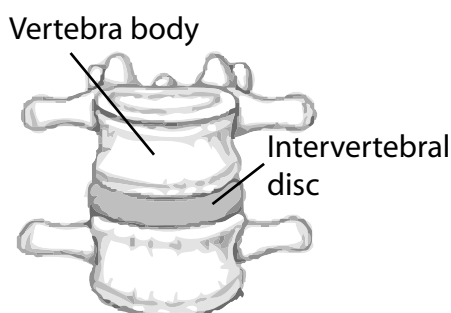
First of all, despite its common name, the disc does not slip out but rather herniates or protrudes through different grades of severity. The spine or spinal column consists of a stack of bones called the vertebrae. These vertebrae are separated and cushioned by discs of cartilage which act as shock-absorbers.

These shock absorbing discs are made up of a tough covering of cartilage (annulus fibrosus) and a soft gel like substance in the middle (nucleus pulposus). Beside acting as shocking absorbers, the disc allows some motion of your spine such as arching your back and bending forwards.

A disc is said to be herniated when the soft-gel in the middle of the disc breaks through the tough outer covering. This can be extremely painful when the soft gel presses on a spinal nerve root.

This herniation of the disc typically occurs slowly through several stages.

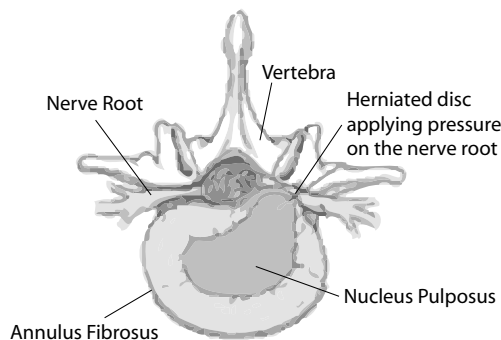
1. Disc bulge or protrusion where the shape of the disc is bulging; the inner annulus fibres have not yet torn.
2. Prolapsed is where the some of the inner annulus fibres are torn and the soft-gel is seeping into the outer covering.
3. Extrusion is where the gel completely breaks through the tough outer covering and is protruding out.
4. Sequestration is where some of the inner soft-gel break off from the disc completely.

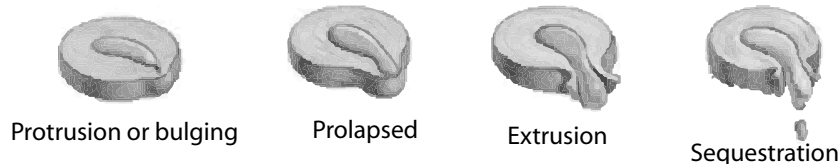


WHAT CAUSES SLIPPED DISC?

More than 80% of herniated discs occur in the lower back, particularly in the L4-L5 and L5-S1 region. This is because the lumbar spine carries most of the body's weight.

They are also most common among people aged 30 to 50 years. Between these ages, the outer covering weakens where the cartilages loses some of its elasticity. The soft-gel, which is under high pressure, may squeeze through a tear or a weakened spot in the covering and bulge out through the various stages mentioned earlier.





A disc may herniate because of a sudden, traumatic injury or repeated minor injuries through poor posture or improper lifting technique over the years. It is not uncommon, for the back to “throw out” from simply bending down to pick up a light book from the floor. The outer-covering or annulus fibrosus is made up of thousands of small fibres. Small tears in a the first few fibres may go completely unnoticed for years before the last few tears that cause a significant disc bulge and the accompanying sharp pain.

WHAT ARE THE SYMPTOMS?

The most common symptom of a herniated disk in the lower back is sciatica - a sharp, often shooting pain that extends from the buttocks down the back of one leg. Other symptoms include:

- Weakness in one leg
- Tingling (a "pins-and-needles" sensation) or numbness in one leg or buttock
- Loss of bladder or bowel control (If you also have significant weakness in both legs, you could have a serious problem. Seek immediate attention.)
- Burning pain centered in the back

Like pain in the lower back, neck pain is also common. When pressure is placed on a nerve in the neck, it causes pain in the muscles between your neck and shoulder . The pain may shoot down the arm. Sometimes the pain causes headaches in the back of the head. Other symptoms include:

- Weakness in one arm
- Tingling (a "pins-and-needles" sensation) or numbness in one arm
- Loss of bladder or bowel control (If you also have significant weakness in both arms or legs, you could have a serious problem. Seek immediate attention.)
- Burning pain in the shoulders, neck or arm

TREATMENT

In most cases, treatment for a herniated disc goes through three stages. At the first or acute stage, treatment is usually conservative or non-operative. This resting period's primary aim is to reduce the spinal nerve inflammation. Anti-inflammatory medication can help provide relief during this initial stage. Avoid massages as it may further aggravate the inflamed spinal nerve.

After a period of rest and when acute pain has largely subsided, the second or sub-acute stage of treatment aims to reduce the associated pains from the resulting stiffness of the joints and tense muscles. Physiotherapy techniques such as mobilisation will help improve the mobility of the spine.

When pain is severe and difficult to cure through conservative treatment and involves nerve damage, a neurological or orthopaedic surgeon may be called in to remove the disc material using procedures such as a discectomy (surgical removal of the disc) or laminectomy (surgical division of a vertebral lamina). When the disc is removed, the pressure on the nerve should disappear, which may relieve pain and permanently restore any lost muscle function.

Once pain is largely under control with only residual effects, physiotherapy can help prevent or reduce its recurrence. Unlike sore or sprained muscles, tears in the outer covering of the disc cannot repair itself. However, if properly protected through correct posture, sensible ergonomics, proper lifting techniques and core stability exercises, it is possible for one to remain pain-free.