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Lumbar disc injuries

By Jill Calkin

Back pain will affect nearly 80% of us at some point in our lives: very often this can occur with injuries to the discs in our back.

The spinal column runs the length of the back creating a supportive frame for the entire body. The lower portion is known as the lumbar spine and it is an area that is often injured. It is made up of five bones and in between each bone lays a lumbar disc designed to absorb shock and to stabilize the back. Each disc has a stiff outer ring that surrounds a jelly-like centre that shifts as we move our backs. Small passageways between the back bones and the discs provide a path for the nerve roots to exit the spinal canal at each level.

There are a number of factors contributing to back and leg pain. Lumbar disc rupture or herniation occurs when the tough, outer ring breaks open or cracks, allowing the more fluid inner material to escape. If a damaged disc bulges into the spinal canal or nerve roots, pain and other symptoms can develop. The inner disc does not even have to be physically pushing on the nerves. Often the body reacts to the jelly-like material with an inflammatory response. Various chemicals are released into the area and can irritate the nerve root or the covering around the nerve, causing swelling and leading to similar symptoms. This also increases the sensitivity of the injured structures to any physical insult.

The lower lumbar discs are more commonly the site of injury, simply because this area supports most of the body's weight. Typical symptoms include a sharp, burning, stabbing pain that radiates to the buttock, down the back or side of the leg to below the knee or even down to the foot. This pain may worsen with coughing, straining, or laughing. Quite often, there is associated numbness or tingling with the pain. Muscle spasm also tends to accompany an injured disc. In later stages, there may be muscle weakness or "wasting" and possibly diminished reflexes. If there is numbness across the top of the buttocks and difficulty with urination, incontinence, or impotence, immediate medical attention is required!

There are many factors that increase the risk of disc herniation and/or nerve root irritation. Lifestyle choices such as tobacco use, lack of regular exercise, and poor nutrition contribute to unhealthy discs. Extra body weight will worsen any low back pain syndromes. With age, natural changes occur that gradually dry out the disc, affecting its strength and elasticity. Additional stress is placed on the back area with poor posture combined with incorrect body mechanics. Since this area has a large weight bearing role, the stresses can be enormous.

Sitting and bending forward increase the pressure on the discs and even more stress is added if someone is carrying a heavy load while in a bent position.

Disc and nerve root injuries may develop gradually over weeks or months, or they may develop suddenly. These problems may start with or be worsened by sustained positions, overuse injuries, unusual activity, heavy labour, or mild trauma in backs with long-standing degenerative changes. Acute injuries can also occur, usually following sudden twisting or bending movements under a load, sport or motor vehicle accident.

In most lumbar disc injuries, non-surgical treatment is the first option. Generally, people with a contained disc herniation that hasn't broken into the spinal canal will find their symptoms are relieved *without* surgery in four to six weeks. In more acute cases, ice is often suggested in the first 24-48 hours. After this period, heat or ice can be applied on the back for no longer than 15-20 minutes at a time and *never* directly to the skin--always wrap a hot or cold pack in a towel. Physicians may prescribe medications to help reduce pain, muscle spasm, and swelling.

Physical therapy is often recommended for disc injuries and related back or leg pain with the aim of treatment being to decrease swelling and pain while increasing flexibility and function. Ice and heat therapy are used with hands-on mobilization techniques, such as massage or traction. Electrical machines and acupuncture are additional methods that can be used to treat back injuries. Working on flexibility in the spine and legs is an important compliment to an abdominal and lower back "core" strengthening program. This helps support the lumbar spine and reduce further flare-ups of back and leg pain due to disc injuries.

With the high prevalence of back pain in today's society, everyone can benefit from proper disc fitness. A healthy lifestyle including adequate exercise and nutrition, combined with proper body mechanics and posture, will go a long way in reducing back problems. Fortunately, if back pain due to disc injury does strike, there are a variety of non-surgical techniques available to help relieve the symptoms and to help prevent injury from happening again.

For further information on this topic please contact the Fawzia Sultan Rehabilitation Institute (FSRI) in Hawally at 264-2862, or check out our website at www.rehabinstitutekuwait.com

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