

## Mini Review on Low Back Pain

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### Abstract

Everyone has experienced some type or degree of pain. Pain is an unpleasant and highly personal experience that may be imperceptible to others, while consuming all parts of the person's life. Pain is more than a symptom of a problem; it is a high priority problem in itself. Pain represents both physiologic and psychologic dangers to health and recovery. Severe pain is viewed as an emergency situation deserving attention and prompt professional treatment. A person in pain feels distress or suffering and seeks relief. Low back pain is an important clinical, social, economic and public health problem affecting the modern society indiscriminately. In persons under age 45, low back pain is responsible for more lost working hours than any other medical condition and represents one of the nation's most costly health problems.

**Keywords:** Vertebroplasty, microdiscectomy, Foraminotomy, intradiscal electrothermal therapy, nucleoplasty.

### Introduction

Low Back Pain (LBP) is a common disorder involving the muscles, nerves and bones of the back. It can vary from a dull constant ache to a sudden sharp feeling. It may be classified by its duration as acute (pain lasting less than 6 weeks), sub-chronic (6 - 12 weeks) or chronic (more than 12 weeks). [1]

### Incidence

About 80% of adults experience low back pain at some point in their lifetimes. It is the most common cause of job-related disability and leading contributor to missed work days. Men and women are equally affected by low back pain. About 20% of people affected by acute low back pain develop chronic low back pain with persistent symptoms at one year. [2] In India, nearly 60% of the people have significant back pain at sometime or the other in their life. [3]

It is second only to headache as the most common pain complaint. It is a common problem because the lumbar region bears most of the weight of the body, is the most flexible region of the spinal column, contains nerve roots that are vulnerable to injury or disease and has an inherently poor biomechanical structure. [4]

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### Causes and Risk Factors

It is most often due to musculoskeletal problem. The mechanical causes of low back pain include sprains and strains, intervertebral disc degeneration, herniated or ruptured discs, radiculopathy, sciatica, spondylolisthesis, a traumatic injury, spinal stenosis and skeletal irregularities. [2] Jobs requiring physically heavy work, frequent bending, static work postures, twisting, lifting, forceful movements, repetitive work and contact with vibrations predispose to low back pain. Psychological factors such as monotony and dissatisfaction at work are also implicated. History of previous low back pain is the single most useful predictor of future episodes of pain. [5]

Several risk factors are associated with low back pain, including obesity, smoking, weight gain during pregnancy, stress, poor physical condition, poor posture and poor sleeping positions. Women may have acute low back pain from medical conditions affecting the female reproductive system, including endometriosis, ovarian cysts, ovarian cancer or uterine fibroids. [1]

### Symptoms

Symptoms of low back pain includes weight loss, fever, inflammation or swelling on the back, persistent back pain, urinary incontinence, pain down the neck, pain that reaches below the knees, difficulty urinating, fecal incontinence or loss of control over bowel movements, numbness around the genitals, anus and buttocks [6], muscle spasm, pain with movement of the spine and pulsating pain. [7]

### Diagnostic Evaluation and Treatment

Medical history, physical examination, the straight leg raise test, lumbar provocative discography, [1] X-ray, MRI or CT scans, blood tests, bone scan and nerve studies helps to rule out this condition. Over-the-counter (OTC) pain relievers, muscle relaxants, topical pain relievers, narcotics, antidepressants and cortisone injection are the treatment of choice. [8] Acupuncture, massage, yoga, exercise, herbal remedies, hot or cold application, chiropractic spinal manipulation, acupressure, [9] nerve block therapies, transcutaneous electrical nerve stimulation are the complementary therapies for low back pain. [8,9]

### Surgical Management

Vertebroplasty and kyphoplasty, spinal laminectomy, discectomy or microdiscectomy, Foraminotomy, intradiscal electrothermal therapy, nucleoplasty or plasma disc decompression, radiofrequency denervation, spinal fusion and artificial disc replacement are the surgical management for low back pain. [8] The complications include nerve damage, loss of work due to disability, weight gain, depression and insomnia. [10]

### Prevention

Preventive measures of low back pain include adequate rest and sleep, reducing stress, tension and anxiety, regular exercises, reducing excess weight, sitting and standing in a upright position, wearing flat shoes, avoiding sudden movements and avoiding heavy lifts. [11]

### Conclusion

Low back pain is one of the most common conditions a nurse encounters in any practice setting. Although, it is a common musculoskeletal disorder and also a challenge to health care professionals. It is the major cause of permanent work disability. It is the major cause of disability in persons under 45 years.

**Source of Support: Nil**

**Conflict of Interest: Nil**

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