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Facts about backache

Vishan Singh Rathore and Shalini Menon

Abstract

Low back pain (LBP) is a symptom produced by disorders of the lumbar spine. It may be impossible to prevent all LBP, and while most episodes of acute LBP are self-limiting, the disorders producing recurrent and chronic LBP are usually incurable. The difficulties in diagnosing the disorders complicate effective management and prevention; however, prevention of spinal trauma reduces the incidence and prevalence of LBP. Effective preventive measures include the reduction of road trauma and smoking, improved vehicle seating, the control of vehicle vibrations, careful worker selection, job redesign, improved physical fitness, and the proper use of the spine in the home, at school, at work, and in sports. The inappropriate use and interpretation of spinal investigations and the overzealous use of surgical procedures certainly add to the problem. An agreement on an acceptable "glossary" of lumbar terms and clinical syndromes is needed together with a new research emphasis on prevention and a continuation of research efforts in epidemiology, etiology, and management of LBP.

Keywords: Facts, backache

Introduction

About 80 percent of adults experience low back pain at some point in their lifetimes. It is the most common cause of job-related disability and a leading contributor to missed workdays. Men and women are equally affected by low back pain, which can range in intensity from a dull, constant ache to a sudden, sharp sensation that leaves the person incapacitated. Pain can begin abruptly as a result of an accident or by lifting something heavy, or it can develop over time due to age-related changes of the spine. Sedentary lifestyles also can set the stage for low back pain, especially when a weekday routine of getting too little exercise is punctuated by strenuous weekend workout. Most low back pain is acute, or short term, and lasts a few days to a few weeks. It tends to resolve on its own with self-care and there is no residual loss of function. The majority of acute low back pain is mechanical in nature, meaning that there is a disruption in the way the components of the back (the spine, muscle, intervertebral discs, and nerves) fit together and move. Effective public education is vital, so that everyone is aware of the causes and methods of prevention of LBP. Recurring back pain resulting from improper body mechanics is often preventable by avoiding movements that jolt or strain the back, maintaining correct posture, and lifting objects properly. Many work-related injuries are caused or aggravated by stressors such as heavy lifting, contact stress. By implementing and following the basic guidelines of preventive measures in our daily routine, we can get rid of from re-occurring and acute backache problems.

Back pain is the pain felt in the back that usually originates from the muscles, nerves, bones, joints or other structures in the spine. However, internal structures such as the gallbladder and pancreas may also refer pain to the back. Most back pain is felt in the lower back.

What is lumbago?

The doctors from UK state that the pain in the lower part of the back is commonly referred to as Lumbago. It can be defined as mild to severe pain or discomfort in the area of the lower back. The pain can be acute (sudden and severe) or chronic if it has lasted more than three months. Most people will experience lumbago at some point in their life. It can occur at any age but is a particular problem in younger people whose work involves physical effort and much later in life, in the elderly. Generally, in most cases it settles in a few weeks but for some it is a persistent problem.

Symptoms of Lumbago

- Pain across the lower part of the back that sometimes radiates into the buttocks, the back of the thigh or to the groin. The pain is usually worse on movement.
- Limitation in movement of the spine – especially bending forward and leaning back.
- Tense spasm of the muscles surrounding the spine and causing a stiff back.
- With severe pain and spasm, the back may tilt to one side causing a change in posture or a limp.
- The pain is sometimes accompanied by a tingling sensation or numbness in the back or buttocks or leg, which may pass right down into the foot. This is called Sciatica and it indicates irritation of the sciatic nerve, which passes down from each side of the spine to the feet.

What causes lower back pain?

The fact sheet from National Institute of Neurological Disorders and Stroke depicts the following different causes of lower back pain:

- Sprains and strains account for most acute back pain. Overstretching or tearing ligaments causes sprains, and strains are tears in tendon or muscle.
- Intervertebral disc degeneration is one of the most common mechanical causes of low back pain, and it occurs when the usually rubbery discs lose integrity as a normal process of aging.
- Herniated or ruptured discs can occur when the intervertebral discs become compressed and bulge outward (herniation) or rupture, causing low back pain.
- Radiculopathy is a condition caused by compression, inflammation and/or injury to a spinal nerve root. Pressure on the nerve root results in pain, numbness, or a tingling sensation that travels or radiates to other areas of the body that are served by that nerve.
- Sciatica is a form of radiculopathy caused by compression of the sciatic nerve, the large nerve that travels through the buttocks and extends down the back of the leg.
- Spondylolisthesis is a condition in which a vertebra of the lower spine slips out of place, pinching the nerves exiting the spinal column.
- A traumatic injury, such as from playing sports, car accidents, or a fall can injure tendons, ligaments or muscle resulting in low back pain.
- Spinal stenosis is a narrowing of the spinal column that puts pressure on the spinal cord and nerves that can cause pain or numbness with walking and over time leads to leg weakness and sensory loss.
- Skeletal irregularities include scoliosis, lordosis
- Tumors are a relatively rare cause of back pain. Occasionally, tumors begin in the back, but more often they appear in the back as a result of cancer that has spread from elsewhere in the body.
- Kidney stones can cause sharp pain in the lower back, usually on one side.
- Osteoporosis
- Fibromyalgia, a chronic pain syndrome involving widespread muscle pain and fatigue.

Risk factors for developing low back pain

For every injury in a human body there would be a certain cause or risk factor involved other than the diseases

Age: The first attack of low back pain typically occurs between the ages of 30 and 50, and back pain becomes more common with advancing age. As people grow older, loss of bone strength from osteoporosis can lead to fractures, and at the same time, muscle elasticity and tone decrease. The intervertebral discs begin to lose fluid and flexibility with age, which decreases their ability to cushion the vertebrae. The risk of spinal stenosis also increases with age.

Fitness level: Back pain is more common among people who are not physically fit. Weak back and abdominal muscles may not properly support the spine. “Weekend warriors”—people who go out and exercise a lot after being inactive all week—are more likely to suffer painful back injuries than people who make moderate physical activity a daily habit. Studies show that low-impact aerobic exercise is beneficial for the maintaining the integrity of intervertebral discs.

Pregnancy is commonly accompanied by low back pain, which results from pelvic changes and alterations in weight loading. Back symptoms almost always resolve postpartum.

Weight gain: Being overweight, obese, or quickly gaining significant amounts of weight can put stress on the back and lead to low back pain.

Genetic: Some causes of back pain, such as ankylosing spondylitis, a form of arthritis that involves fusion of the spinal joints leading to some immobility of the spine, have a genetic component.

Occupational risk factors: Different job that requires heavy lifting, pushing, or pulling, particularly when it involves twisting or vibrating the spine, can lead to injury and back pain. An inactive job or a desk job may also lead to or contribute to pain, especially if one has poor posture or sit all day in a chair with inadequate back support.

Mental health factors: Pre-existing mental health issues such as anxiety and depression can influence how closely one focuses on their pain as well as their perception of its severity. Pain that becomes chronic also can contribute to the development of such psychological factors. Stress can affect the body in numerous ways, including causing muscle tension.

Backpack overload in children: Low back pain unrelated to injury or other known cause is unusual in pre-teen children. However, a backpack overloaded with schoolbooks and supplies can strain the back and cause muscle fatigue. The American Academy of Orthopaedic Surgeons recommends that a child’s backpack should weigh no more than 15 to 20 percent of the child’s body weight.

How is lumbago treated?

Acute & Chronic low back pain

Pharmacologic Therapy

The mainstay of pharmacologic therapy for acute low back pain is non-steroidal anti-inflammatory drug (NSAID). If no medical contraindications are present, a two- to four-week course of medication at anti-inflammatory levels is suggested.

Rest

Previously, bed rest was frequently prescribed for patients with back pain. The current recommendation is two to three

days of bed rest in a supine position for patients with acute radiculopathy. Sitting, even in a reclined position, actually raises intradiscal pressures:

Physical Therapy Modalities

Superficial heat (hydrocolloid packs), ultrasound (deep heat), cold packs and massage are useful for relieving symptoms in the acute phase after the onset of low back pain. These modalities provide analgesia and muscle relaxation. However, their use should be limited to the first two to four weeks after the injury.

Traction – Traction involves the use of weights and pulleys to apply constant or intermittent force to gradually “pull” the skeletal structure into better alignment. Some people experience pain relief while in traction, but that relief is usually temporary. Once traction is released the back pain tends to return.

Acupuncture is moderately effective for chronic low back pain. It involves the insertion of thin needles into precise points throughout the body. It stimulates naturally occurring painkilling chemicals such as endorphins, serotonin, and acetylcholine are released. Most notable is that acupuncture stimulates the central nervous system—the brain and spinal cord.

Exercise

Aerobic exercise has been reported to improve or prevent back pain. Excess weight, however, has a direct effect on the likelihood of developing low back pain, as well as an adverse effect on recovery. Exercises that promote the strengthening of muscles that support the spine (i.e., the oblique abdominal and spinal extensor muscles) should be included in the physical therapy regimen, it may be an effective way to speed recovery from chronic or sub acute low back pain. *Physical therapy* programs to strengthen core muscle groups that support the low back, improve mobility and flexibility, and promote proper positioning and posture.

Psychologic Evaluation

Psychosocial obstacles to recovery may exist and must be explored. Studies have shown that workers with lower job satisfaction and depression are more likely to report back pain and to have a protracted recovery.

Surgery

When other therapies fail, surgery may be considered an option to relieve pain caused by serious musculoskeletal injuries or nerve compression. It may be months following surgery before the patient is fully healed, and he or she may suffer permanent loss of flexibility.

A course of manual therapy (such as physiotherapy, or treatment from an osteopath or chiropractor).

Recommendations for keeping one’s back healthy

- Always stretch before exercise or other strenuous physical activity.
- Don’t slouch when standing or sitting. The lower back can support a person’s weight most easily when the curvature is reduced. When standing, keep your weight balanced on your feet.
- At home or work, make sure work surfaces are at a comfortable height.

- Sit in a chair with good lumbar support and proper position and height for the task. Keep shoulders back. Switch sitting positions often and periodically walk around the office or gently stretch muscles to relieve tension. A pillow or rolled-up towel placed behind the small of the back can provide some lumbar support. During prolonged periods of sitting, elevate feet on a low stool.
- Wear comfortable, low-heeled shoes.
- Sleeping on one’s side with the knees drawn up in a fetal position can help open up the joints in the spine and relieve pressure by reducing the curvature of the spine. Always sleep on a firm surface.
- Don’t try to lift objects that are too heavy. Lift from the knees, pull the stomach muscles in, and keep the head down and in line with a straight back. When lifting, keep objects close to the body. Do not twist when lifting.
- Maintain proper nutrition and diet to reduce and prevent excessive weight gain, especially weight around the waistline that taxes lower back muscles. A diet with sufficient daily intake of calcium, phosphorus, and vitamin D helps to promote new bone growth.
- Quit smoking. Smoking reduces blood flow to the lower spine, which can contribute to spinal disc degeneration. Smoking also increases the risk of osteoporosis and impedes healing. Coughing due to heavy smoking also may cause back pain.

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