

Back Pain: A Costly Ache

Each year, more than 65 million Americans experience low back pain. Four out of five adults will experience at least one bout of back pain at some point in their lives and on average, one third of all people have had back pain in the last 30 days. Back pain ranks second only to headaches as the most frequent pain people experience. It is the most common cause of job-related disability and a leading contributor to missed work. According to various sources, as many as 100 million working days are lost each year due to back pain.

Because back pain is so prevalent, it is an enormous cost burden to purchasers, both in terms of direct and indirect medical costs. According to a study by researchers at Duke University Medical Center, the total health expenditures by individuals with back pain was \$90.7 billion in 1998. Direct costs to treat individuals with back pain accounted for \$26 billion a year or 2.5% of the total health care bill in America. Indirect costs, including disability payments, workers' compensation, lost wages, lost productivity, and social costs, accounted for additional expenditures.

Back problems are also the leading reason for visits to neurologists and orthopedists, and the eighth leading reason for visits to all doctors – ahead of fever, knee pain, rashes, headaches and health checkups for babies. According to the Centers for Disease Control and Prevention (CDC), back symptoms accounted for 13.7 million medical visits in 2001 – 1.6% of all visits to the doctor. Furthermore, the American Academy of Orthopaedic Surgeons (AAOS) reported that over 500,000 hospitalizations each year are attributable to back conditions. In Pennsylvania, PHC4 data shows the number of hospitalizations for “medical back problems” (DRG 243) was 12,407 between April 1, 2002 and March 31, 2003.

Reasons for Back Pain

Back pain often results from a work or sports-related injury or a sudden jolt, such as from a car accident. It can occur when someone lifts something too heavy or overstretches, causing a strain, sprain or spasm in one of the muscles or ligaments in the back. Back pain can also be caused by contact stress (repeated or constant contact between soft body tissue and a hard or sharp object), vibration, repetitive motion and poor posture.

Obesity, smoking, weight gain (especially during pregnancy), stress, poor physical condition, poor posture, and poor sleeping position may also contribute to increased back pain, as can the buildup of scar tissue from repeated back injuries. Degenerative conditions such as arthritis and osteoporosis, viral infections, irritation to joints and discs or abnormalities in the spine may also lead to back pain. Furthermore, back pain can occur for no apparent reason. In fact, some studies suggest that in 85% of cases, it is impossible to say why a person experiences pain.

In particular, back pain is often the result of a bulging disc (also referred to as protruding or herniated disc). If the spine becomes overly strained or compressed, a disc – a round spongy pad of cartilage between the vertebrae that allows for flexibility and acts like a shock absorber – may rupture or bulge outward. A bulging disc may put pressure on one of the more than 50 nerves rooted to the spinal cord that control body movements and transmit signals from the body to the brain. This can cause additional pain throughout the back and in some cases, throughout the whole body.

While men and women are equally affected, back pain most often occurs in people between ages 30 and 50, due, in part, to the aging process, but also as a result of sedentary lifestyles with too little exercise. Chronic back pain

Over please

is the most frequent cause of activity limitation and lost workdays in adults under the age of 45.

Treatment for Back Pain

There are many options for treating back pain, but recommendations for treatment may vary. Because most back problems are not life threatening, and 90% of people with back pain will recover within 4 to 6 weeks, many doctors first recommend home treatment or self-care and self-education. This may include heat and/or cold therapy, over-the-counter pain relievers, exercise, getting weight under control, and recognizing appropriate activity level. Bed rest is sometimes recommended; but experts suggest that individuals only get 1 to 2 days of bed rest at most, resuming activities as soon as possible.

For those who do not improve with home treatment and self-care, a variety of medical treatments are available. They include prescription medications such as anti-inflammatory drugs and muscle relaxants; corticosteroid injections; electrical stimulation; and exercise and physical therapy. Non-traditional therapies such as acupuncture, chiropractic care (spinal manipulation) and massage also have been found to be effective.

Surgery is also an option. It is usually reserved for situations where a nerve is pinched, the spinal cord is compressed or there is too much movement between the spinal vertebrae, and recommended if back pain is accompanied by symptoms of nerve damage. Symptoms may include pain that radiates down the legs or arms, numbness, weakness or tingling in arms or legs, loss of bladder or bowel control.

There are several types of surgeries that may be performed including discectomies (the removal of a herniated disc or disc fragments), laminectomies (removal of bone from the affected area) and spinal fusions (the fusing of vertebrae together to alleviate movement and thus pain). Most health care professionals recommend conservative treatment before performing surgery. Back procedures are high volume, high cost surgeries; and, some studies comparing surgical and non-surgical treatment outcomes have shown little or no difference between the two approaches. Discectomies are among the most frequently performed procedures in the United States, with nearly 300,000 performed each year. In 2003, there were 250,000 spinal

fusion procedures performed in the U.S. – three times as many as a decade ago. Spinal fusion is expensive, the average hospital bill nationally is more than \$34,000, excluding professional fees. In Pennsylvania, according to PHC4 data, the average charge for neck and back procedures with fusion is \$32,587.

Prevention of Back Injuries and Back Pain

There are several steps that purchasers can take to help employees avoid back injuries and back pain. First, purchasers may want to incorporate ergonomics – designing furniture and tools to protect the body from harm, helping to reduce back injuries in the workplace. In fact, effective ergonomics is part of the Occupational Safety & Health Administration's (OSHA) overall strategy for reducing workplace injuries and illnesses. Some studies have shown a 25% to 37% increase in productivity through the proper use of ergonomics products.

Purchasers can also encourage employees to take these simple steps to prevent back problems: stretching before physical activity; standing and sitting up straight; wearing comfortable, low-heeled shoes; not lifting objects that are too heavy; and lifting with the knees, keeping the object close to the body.

Because back health is an essential component to overall health, it is also important for purchasers to educate their employees and members about how to avoid an aching back. Regular exercise, such as walking, swimming and biking, is particularly good for increasing strength and endurance in the back, allowing muscles to function better. Maintaining proper nutrition to reduce and prevent excessive weight, especially around the waistline (which taxes lower back muscles) is important. Finally, encouraging employees to quit smoking is a step that purchasers can take; smoking reduces blood flow to the lower spine and causes the spinal discs to degenerate.

Even though back pain is rarely life threatening, people are no longer willing to live with the discomfort. As patients seek more aggressive forms of treatment, costs will continue to rise, and purchasers will have to cope with the direct and indirect consequences. By promoting an understanding of the limitations of the human body and encouraging employees to focus on back health, purchasers may be able to lower both direct and indirect costs.

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