

BACK PAIN / BACK CARE

Over a lifetime, 80 percent of people suffer at least one episode of low back pain. Fifty percent recover within one week, and 90 percent are free of symptoms within six weeks, regardless of the diagnosis or type of treatment. Unfortunately, more than half have one or multiple recurrences of back pain during the next two to three year period. Even though the majority who suffer do not seek medical attention, back pain is the second most frequent reason for which a person in the U.S. consults a physician, exceeded only by the common cold.

Causes

At least 95 percent of the time, no precise cause for acute low back pain can be identified, no matter how elaborate the diagnostic workup. Infrequently, in only one to two percent of cases, herniation (rupture) of a lumbar disk is the culprit, but even in this case the clinical course of back pain is generally similar to the pattern in persons where the source is thought to be mechanical, i.e. "strain or sprain" from injury or poor posture. Even when disk material is placing pressure on a nerve and causing sciatica (pain radiating down a leg), the nerve usually wins out, and the process abates with time. This self-repair is probably due to the nerve's tissue being much firmer than the disk material and once the inflammation subsides, the person becomes asymptomatic, at least temporarily.

Risk Factors

Unequivocal risk factors for low back pain have recently been identified. Fortunately, they are all manageable. Obesity presents a twofold increased risk of low back pain, making maintenance of ideal body weight critical. An additional independent risk factor is cigarette smoking. A person who smokes three packs of cigarettes per day has a 2 1/2 times greater chance of experiencing low back pain than does the nonsmoker! Although the explanation for this association is not sufficiently understood (it could be poorer oxygenation in the back, hardening of the arteries in the spine or any number of other possibilities), the obvious lesson is that persons with back pain should stop smoking in order to avoid or prevent back pain (and for many other health reasons as well). Another significant risk factor is poor posture, which is thought to contribute to as much as 80 percent of back pain episodes.

People whose occupations require heavy lifting and physical labor were once considered to be at high risk for low back pain. Job-related physical activity, however, plays a smaller role than had been previously suspected. In fact, recent data suggests that sedentary workers are at greater risk for back pain than are heavy laborers. In general, it has been shown that people who engage in regular exercise, especially specific stretching and strengthening exercises for the back, have far less risk of experiencing back pain than those who do not engage in physical activity.

Diagnosis

For most sufferers of back pain, expensive and time consuming diagnostic measures are not indicated. For those whose pain persists longer than a month or so, there are now several sophisticated imaging methods for investigating the source of the problem. The non-invasive imaging technique computed tomography (CT) is frequently utilized. Even clearer

visualization of the bones, disks and nerves of the spine can be acquired with magnetic resonance imaging (MRI) which involves no radiation. Unless a tumor or infection is suspected, however, it is rarely necessary to use MRI for evaluation of back pain.

Therapy

Single episodes of low back pain are almost always self-limited. It is the habitual and frequently more debilitating attacks that require more aggressive treatment. Unfortunately, many traditional treatments for low back pain have been ineffectual or even injurious. Too often prolonged bed rest, traction corsets, steroid injections, chemonucleolysis (injection of an enzyme into a painful disk), strong analgesic or anti-inflammatory drugs or even surgery are recommended before other more common sense options have been exhausted.

It is now understood that effective modes of treatment include:

1. Applying heat to the back - especially moist heat which penetrates deeper than dry heat.
2. Assuming proper positions when standing, sitting, or reclining.
3. Taking analgesics on a regular basis for at least 48 hours.
4. Resting for a short period of time - meaning no vigorous exercise - until symptoms have subsided.

On the basis of a definitive study published in 1986, prolonged bed rest for acute mechanical low back pain is no longer advised. Participants in the study who stayed in bed for just two days after the onset of pain did fully as well as those subjected to seven days of bed rest. One reason for this may be that the injured soft tissue becomes increasingly stiff with too much bed rest - thus actually prolonging the course of recovery. Even more encouraging, the utility of exercise therapy is becoming widely accepted. Another important study showed that while an intensive exercise regimen actually increased the degree of back pain during the first month, in the ensuing two months of exercise far greater improvement was noted. [Those doing the prescribed exercises were compared with a control group not engaged in similar exercise.] These findings emphasize the notion that persons with a history of back pain should regularly participate in a therapeutic exercise program.

Prevention

Individuals who have experienced a severe episode of mechanical low back pain and those who wish to avoid this common malady would benefit by making appropriate alterations in certain life-style habits. In particular, a regular exercise program that encompasses strengthening, flexibility and endurance should be maintained. For example, sit-ups, done correctly, are an excellent way to tone both the abdominal and back musculature. Brisk walking, stationary or outdoor cycling, various aerobics regimens, push-ups, shallow knee bends, and jogging all confer benefit to the entire body, as well as the back. Achieving and maintaining ideal body weight is important. Proper posture, using appropriate techniques for lifting and keeping the body healthy with good nutrition and adequate rest are essential. As previously mentioned, not smoking is also of value.

As with many matters of health, those who suffer from back pain do have choices. For further information, call the Student Care Center Nurse during regular business hours at 773-702-1915.