

Back Pain

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On a daily basis many physicians are challenged to help their patients deal with low back pain.

Eighty percent of the American population experiences low-back pain at some point in their lives. The estimated cost to our economy ranges from \$26 to \$56 billion per year. There are about 500,000 spine surgeries performed each year with failure rates averaging between 10 and 20 percent.

The spine can be imagined to move like a slinky. It is made up of 24 individual movable vertebrae and nine fused vertebrae.

There are seven neck vertebrae, twelve thoracic or mid-portion vertebrae and five lumbar or lower vertebrae. The lowest of these meets the sacrum, which is actually formed by the fusion of five vertebrae before we are born. The sacrum ends in what is commonly known as the tailbone or coccyx, which is made up of four tiny fused vertebrae.

Low-back pain can be localized to the low-back area or it may radiate to the buttock, thigh, groin or low abdomen. Many people often feel that their pain is due to a herniated disc. The disc is actually an oval-shaped shock absorber that is situated between the bones of the vertebrae.

When a disc moves from its normal position, it may put pressure on a nerve root and cause pain. However, not all discs cause pain and not all pain is related to the disc. Often the changes reported in the disc are not due to a particular trauma, but rather the normal aging process.

We think of back pain as either acute or chronic. Acute low-back pain is artificially defined as activity intolerance due to low-back related symptoms of less than three months in duration. The Agency for Health Care Policy and Research had a 23-member panel develop a guideline for the treatment of acute low-back pain. The basic premise was to switch from a pain-focused model to an activity-based model. Chronic back pain by definition is pain that exceeds three months in duration.

The physical examination and the patient history are crucial in the evaluation. Observations of walking patterns, sensory changes, loss of muscle strength and size, changes in reflexes and maneuvers to reproduce the pain are all helpful in the investigative process. We then many choose to look at additional testing.

The diagnostic tests most often relied upon are X-Ray, MRI or CAT scan and electromyography. These must be interpreted very carefully as there is a possibility of falsely identifying a problem that may have been present before the symptoms began. We always remember to treat the patient and not the tests. A New England Journal of

Medicine study showed that two-thirds of adults studied had disc abnormalities without any pain.

Treatment approaches are quite varied. Conservative treatment, including physical therapy, chiropractic care and medications, may often be the first line of attack. Our initial focus is in reducing pain and bringing the patient to greater activity. We work to create patient independence in the management of on-going low-back pain. Often we proceed to trigger point injections and epidural corticosteroid injections. New techniques of fluoroscopically guided injections make them more precise and effective.

Complementary treatments such as acupuncture offer some patients great relief with a very low risk of side effects.

In some cases, lack of improvement, signs of progressive nerve damage such as weakness in the legs or changes in bowel and bladder function often necessitate the need for surgical intervention.

There are many emotional changes that accompany episodes of low-back pain that include tension, stress, anxiety, fear and depression. The importance of the mind-body connection cannot be underestimated as pain has both physical and psychological components. Living with pain can be psychologically devastating, however while back pain may be life altering it does not need to be life stopping.

Primary medical doctors, neurologists, physiatrist and physical therapist work closely together to develop individualized treatment plans to assure the patient the safest route back to health.

Dr. D'Angelo is a past president of the Richmond County Medical Society and has been an active member since 1994. He specializes in Pain Management, Physical Medicine and Rehabilitation and maintains a practice in New Dorp.