Low back pain remains the second most common symptom-related reason for seeing a physician in the United States. Approximately 85% of Americans will experience an episode of mechanical low back pain at some point during their lifetime. Fortunately, for the vast majority of these people, the low back pain goes away within two to four weeks. For some, low back pain becomes a chronic problem.

The causes of mechanical low back pain can be complicated. The multiple structures and elements of the lumber spine (eg, bones, ligaments, tendons, disks, muscle) are all suspected to have a role. In most chronic low back pain cases, causes are likely to include nerve involvement.

A significant portion of low back pain patients have pain that is generated by the lumbar facet joints. The diagnosis of facet-mediated pain is made by patient history, imaging studies, physical examination, and diagnostic injections. Patients with chronic low back pain who have 75 to 100% relief with diagnostic injections are typically the best candidates for facet arthrodesis (fusion).

A new minimally invasive arthrodesis technique has been devised and is currently marketed under the moniker TruFUSE™. The procedure is specifically designed for those patients who are not candidates for a traditional fusion procedure, but have failed conservative therapies.

The technique utilizes an allograft bone dowel, and can be performed in less than 30 minutes. Fluoroscopy is used to localize the affected facet joint, and the remainder of the procedure is performed through small stab incisions. The provided allograft dowels perform several functions. First, they separate the arthritic joint surfaces to reduce inflammation. Second, they stretch the anterior joint capsule and create a press fit to enhance stability. Finally, they provide an optimized environment for facet joint fusion.

The TruFUSE™ technique offers several advantages. The procedure is short and, due to the small incision, results in little tissue disruption and trauma. There is very little blood loss, a low risk for infection and neurologic injury, and shorter hospitalization. These advantages combine and translate into very high patient satisfaction.

In summary, the TruFUSE™ technique for facet joint fusion is an ideal form of therapy for those patients with chronic facet mediated back pain. Ideal patients are those who are not candidates for more invasive fusion surgery, but have failed conservative measures.

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This article was first printed in Your Wellness Matters, Summer 2010 issue.