Focus on Back Pain

About 80 percent of us will experience back and neck pain at some point in our lives. Most of us won't know what caused it or what can be done to relieve the pain.

The main structures causing back pain include:

- Discs: the "pads" between each vertebra or back bone
- Facet joints: small joints on each vertebra that guide and control movement of the spine
- Sacroiliac joint: the joints where the lower part of the spine joins the pelvic bone

In addition, many people with back pain have a biomechanical or muscular component.

The good news is, most back and neck pain actually resolves itself within two to three months. In those cases where treatment is necessary, contrary to popular belief surgical intervention isn't the only option. While surgery is appropriate for some conditions – such as when patients have progressive neurological weakness from severe narrowing of the spinal canal ("stenosis") or severe nerve root compression – most back pain can be treated through many new methods that do not involve surgery. These methods include physical therapy to treat biomechanical problems or a comprehensive pain program that includes medications and injections.

The newest nonsurgical therapies involve the use of fluoroscopic or CT-guided injections into the back or neck. Today, we know that back pain can arise from specific areas in the back called "pain generators." Guided injections target these pain generators, such as specific selective nerve roots in the space around the spinal cord ("epidural space"), the facet joints or other areas.

Using a fluoroscopy X-ray machine or CT (computed tomography) scanner, we can determine with precision where to place the needle and inject the medication. Injections administered in this fashion work by causing a local anti-inflammatory effect, as well as acting directly on the pain fibers to decrease the pain produced. The medication injected usually includes a steroid (anti-inflammatory medication) and a local anesthetic. Before injecting the medication, a dye is used to confirm the exact location for the treatment.

Injection treatments are outpatient procedures and, unlike surgeries, do not involve a stay in the hospital. The procedure itself often takes less than 30 minutes; the whole process, from check-in to check-out, is typically completed in two to three hours. Another benefit of this type of treatment: patients get more immediate relief than compared to other treatment options, with effects typically felt within two to four days.

Some of the more common procedures performed at Baylor Clinic to treat back and neck "pain generators" include:

- Epidural injections – injections into the space just outside the spinal cord where the nerve roots lie
- Facet joint injections – injections into the small joints of the back that guide the movement of the spine
- Medial branch blocks and radiofrequency neurotomies – procedures either through injection or nonsurgical destruction of painful nerves
• Sacroiliac joint injections – injections of medication into the joints where the spine joins the pelvis, if this is the pain generator
• Hip and shoulder injections

In addition, other more advanced procedures are also performed on an outpatient basis.

Nonsurgical treatment of back and neck pain has come a long way, with more precise treatments available today to relieve this common source of pain. Our goal in Interventional Pain management, part of the department of Physical Medicine and Rehabilitation, is to treat each patient with the least invasive method while achieving the best possible results.

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