



Back Pain

Back pain can be classified into different categories:

Acute pain vs. Chronic pain (greater than 6 months)

Central (axial) back/neck pain vs. Peripheral (radicular) radiating arm/leg pain.

Acute Pain: Possible causes include a new broken bone (vertebra) from injury or osteoporosis, bulging or herniated discs, nerve irritation from arthritis or degenerative conditions, and infection. This pain can be central, peripheral, or both.

Chronic Pain: May be caused by previous injuries, arthritic or degenerative conditions including bulging discs, spinal or canal narrowing (stenosis), old fractures, and bone spurs. This pain may occur daily or intermittently and can interfere with activities of daily living. This pain can be central, peripheral, or both.



Please call us at **317-621-5555** to setup an appointment with one of our board certified Interventional Radiologists who are experts in back pain management.

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BACK PAIN MANAGEMENT



Back pain will affect almost 80% of Americans at some point in their lifetimes.

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3 levels of treatment:

- 1. Conservative treatments:** These include physical therapy, bracing, steroid dose packs, and pain medications. Other options include acupuncture, massage therapy, and chiropractic treatments.
- 2. Steroid Injections:** These are performed by specialized physicians utilizing imaging (X-Ray) guidance for needle placements. These include epidural steroid injections, selective nerve root blocks, facet (medial branch) joint blocks, denervations, and Sacro-iliac (SI) injections.
- 3. Surgery.**

Back Pain Injections

Depending on your medical condition, more than one type of treatment may be necessary to provide maximum pain relief. Different injections/blocks may be performed at the same treatment session or at different sessions. The injections/blocks may be repeated if they provide adequate pain relief. All injections are performed on an outpatient basis; patients need a driver to bring them home. Patients can resume normal activities starting the next day.

Epidural Steroid Injection (ESI): This involves injecting the steroid/anesthetic mixture into the space near the spinal cord and nerve roots relieving edema and inflammation. This injection is most commonly performed in patients with central back/neck pain but may also be performed in patients with arm/leg pain. Multiple levels may be injected at the same treatment session. These injections may provide significant relief lasting for many months, and may be repeated if the pain returns.

Selective Nerve Root Block (SNRB): This injection delivers the steroid/anesthetic mixture directly to a nerve root. This injection is performed in patients with peripheral (arm/leg) pain. This block may provide significant relief lasting for many months, and may be repeated if the pain recurs.

Medical Branch (Facet Joint) Block: Arthritis involving the facet joints is one of the most common causes of central (back/neck) chronic pain. These injections deliver the steroid/anesthetic mixture directly onto the nerves (medical branch nerves) that supply the facet joints. This block may provide significant pain relief, the patient may be a candidate for medical branch (facet joint) denervation.

Medical Branch (Facet Joint) Denervation: If an initial medial branch (facet) block is successful at relieving back pain, the nerve(s) causing the pain can be heated with a special microwave energy (radiofrequency) probe. The heat temporarily destroys the nerve which can provide 6 months to 2 years of pain relief. The denervation can be repeated if the pain recurs.

Sacro-Iliac (SI) Joint Injection(s): Arthritis/degenerative changes involving the SI joints are a common cause of lower back and buttock/upper thigh pain. Direct injection of a steroid/anesthetic mixture into the SI joints often provides significant pain relief which can last for many months. These injections may be repeated if the pain recurs.

Spine Fracture Treatments

Vertebroplasty: Minimally invasive, outpatient procedure-thin bone cement injected into fracture to “freeze” and “set” fracture.

Kyphoplasty: Minimally invasive outpatient procedure-balloons are placed and inflated in the bone to create cavity and raise endplates. Thicker bone cement is then injected to “freeze” and “set” the fracture.

BVA Kyphoplasty: Minimally invasive outpatient procedure-Optimesh bag is inserted into fractured bone and filled with bone chips to “set” fracture.

Sacroplasty: Thickened bone cement injected into painful sacral (tailbone) fractures to “spot weld” the fracture lines.

Osteoplasty: Thickened bone cement injected into painful malignant bone tumors, can be combined with RF ablation to kill tumor.

Other types of pain treatment

Intercostal Blocks: Treatment of painful rib fractures. Long acting anesthesia is injected to block the nerves along the ribs.

Synovial Cyst Rupture: Synovial cyst are small sacs of fluid that arise from facet joints and can cause painful pressure in spinal nerves resulting in severe leg pain. A steroid/anesthetic mixture is forcibly injected (with CT guidance) to rupture the cyst and relieve pain.

Hip Injection: A steroid/anesthetic mixture is injected into the hip joint to relieve pain.

