



Interventional Pain Management

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- **Double board-certified
interventional pain management
physician & physiatrist**
- **Renton & Covington**

Injectons & Procedures

- **Epidural steroid injections** (cervical, thoracic, lumbosacral)
- **Radiofrequency Ablation** (total spine facet joints [medial branches], knees, cluneal nerves)
- **Joint / bursa injections** (hips, knees, shoulders, facet joints)
 - Steroids, viscosupplementation, PRP
- **Sympathetic nerve blocks**
- **Neuromodulation** (spinal cord stimulation and peripheral nerve stimulation)
- **Basivertebral nerve ablation**
- **Others**

An Example of Treatment Types

KNEE PAIN TREATMENTS

Knee Pain - Interventions

- Corticosteroids / Viscosupplementation / PRP, etc.
- Lumbar sympathetic block (LSB)
- Radiofrequency Ablation (RFA)
 - Genicular nerves
- Peripheral Nerve Stimulation (PNS)
 - Genicular nerves, saphenous nerve, femoral/sciatic nerves, etc.
- Spinal Cord Stimulation (SCS)

SPINAL CORD STIMULATION (SCS)

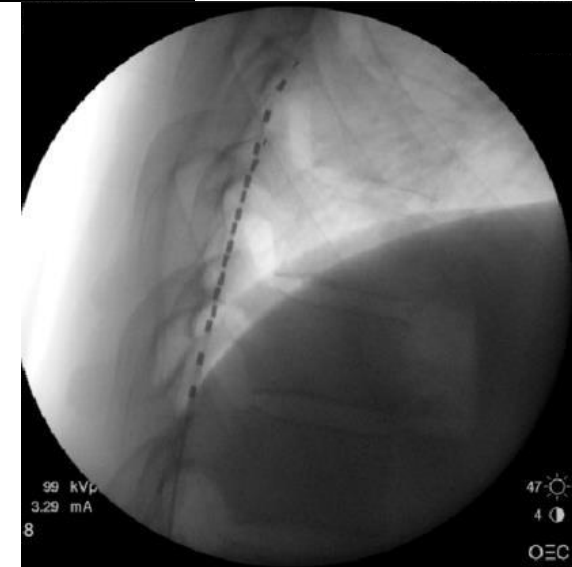
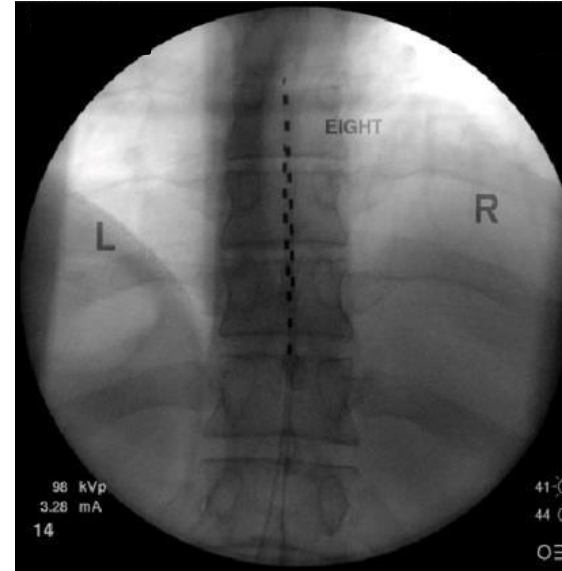
Spinal Cord Stimulation (SCS)

- “Chronic pain solution”
- SCS disrupts the pain signals traveling between the spinal cord and the brain (gate control)
- The neurostimulator, a device similar to a pacemaker, is implanted under the skin
 - Impulses are delivered through wire leads
 - Two small, superficial incisions
 - No cutting of bone or muscle



SCS, cont.

- 3-10 day trial before implant
 - No sutures or incisions
 - External battery
- Stimulation patterns can be customized to pain pattern
- SCS implant is fully reversible, minimally-invasive
- Compatible with 1.5T MRI's



Spinal Cord Stimulation (SCS)

- Post-laminectomy syndrome / **Persistent spinal pain syndrome** (PSPS or previously FBSS)
- **Refractory Radiculopathy** – non-surgical pain
- Painful **Peripheral Neuropathy** (diabetic, chemotherapy-induced, others)
- **Post-TKA, post-THA** pain, post-surgical pain
- Complex Regional Pain Syndrome (**CRPS**)
- Among others

Diabetic Peripheral Neuropathy & SCS

- 86% of patients with DPN experience >50% relief with SCS
- Criteria:
 - Good glycemic control
 - No open ulcers
 - 1+ years of painful peripheral neuropathy
 - Tried and failed nerve pain medications

PERIPHERAL NERVE STIMULATION (PNS)

Peripheral Nerve Stimulation (PNS)

- Mechanism of action:
 - Gate control
 - Reversal of central sensitization
- Two types:
 - SPRINT PNS (SPR Therapeutics) – temporary
 - Nalu – permanent

Indications

Nerve Target	Indications	
Suprascapular	Shoulder Pain	s/p TSA, arthroscopy, adhesive capsulitis, OA, AVN, tumor, post-stroke shoulder pain
Axillary	Shoulder Pain	
Medial Branches (Cervical, Lumbar, Thoracic)	Axial neck/back pain	
Third Occipital Nerve	Cervicogenic headaches	
Medial / Superior Cluneal	“Refractory” SIJ pain v cluneal neuralgia	
Genicular Nerves (SM, SL)	Knee Pain	s/p TKA, arthroscopy, OA, AVN, tumor

SPR Therapeutics: SPRINT

A



B



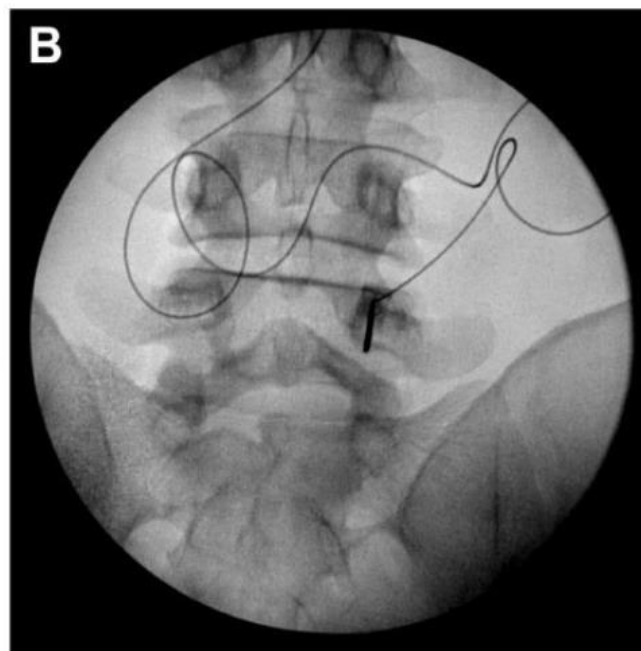
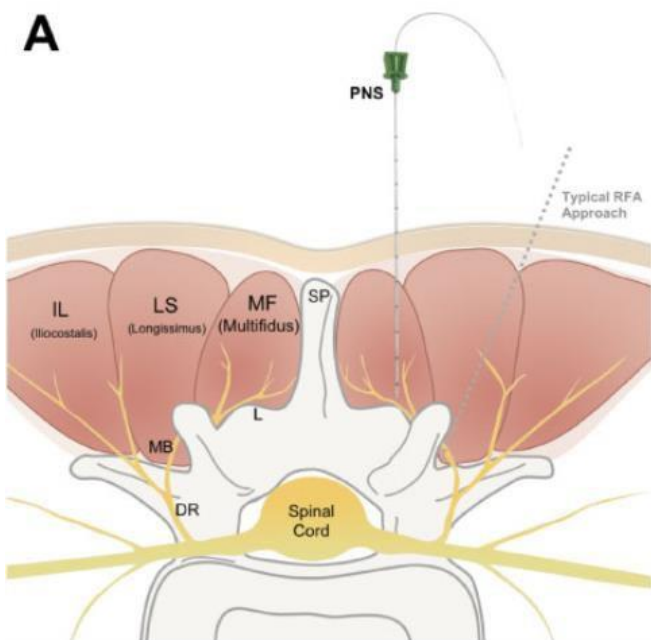
C



- Temporary 60 day implant
- Percutaneously implanted



Peripheral Nerve Stimulation (PNS)



Nalu



- Percutaneous trial for 3-10 days
- Then surgical, minimally-invasive implant

Community Outreach Webinar: Spinal Cord Stimulation (SCS)

- Date: January 22, 2024
- Time: 5:30 PM
- Place: Zoom Webinar
- Sign-up Link: https://medtronic.zoom.us/webinar/register/9517006012483/WN_bHM1Of3VS3eyZkLPjKaBdw#/registration



Thank you for your time and attention!

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