

PRECISE DIAGNOSIS AND TREATMENT OF NECK AND BACK PAIN

*JOHN V. PRUNSKIS M.D. FIPP
MEDICAL DIRECTOR
ILLINOIS PAIN INSTITUTE*



Elgin, Itasca, Lake Barrington, McHenry, Libertyville, Huntley, Elmhurst



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Precise Diagnosis and Treatment of Painful Conditions
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Physicians have over 9 decades of combined experience and have achieved the highest distinction for an interventional pain physician as a Fellow in Interventional Pain Practice (FIPP). Our doctors have been voted by our peers to receive the Castle Connolly “Top Pain Doctor” award in Chicago as published in Chicago Magazine an unprecedented seventh time.

Recipient of US News & World Report Top Pain Doctor Award.



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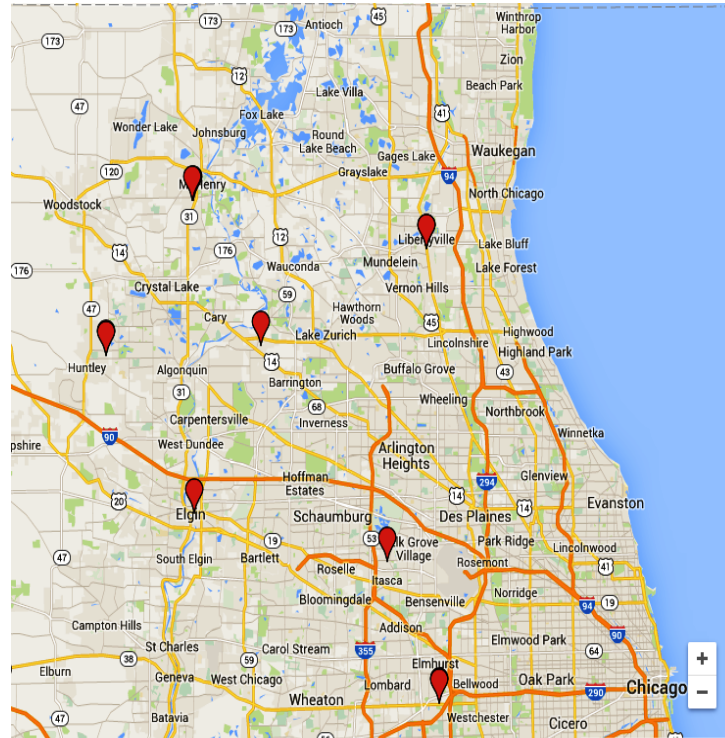
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Elgin IL 60120

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22285 Pepper Rd
Suite 302
Lake Barrington IL 60010

McHenry, IL
4309 Medical Center Dr
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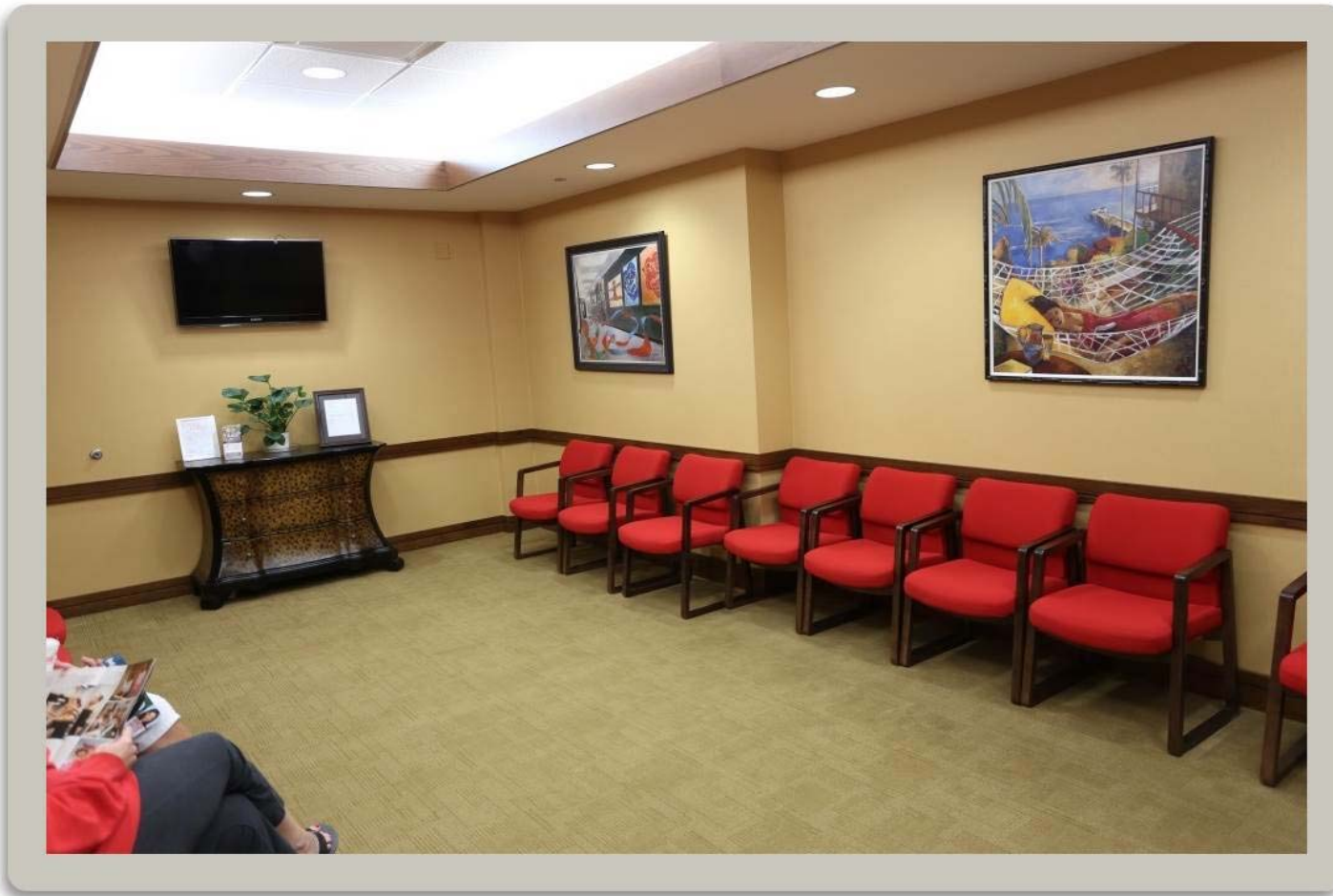
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BARRINGTON PAIN & SPINE INSTITUTE

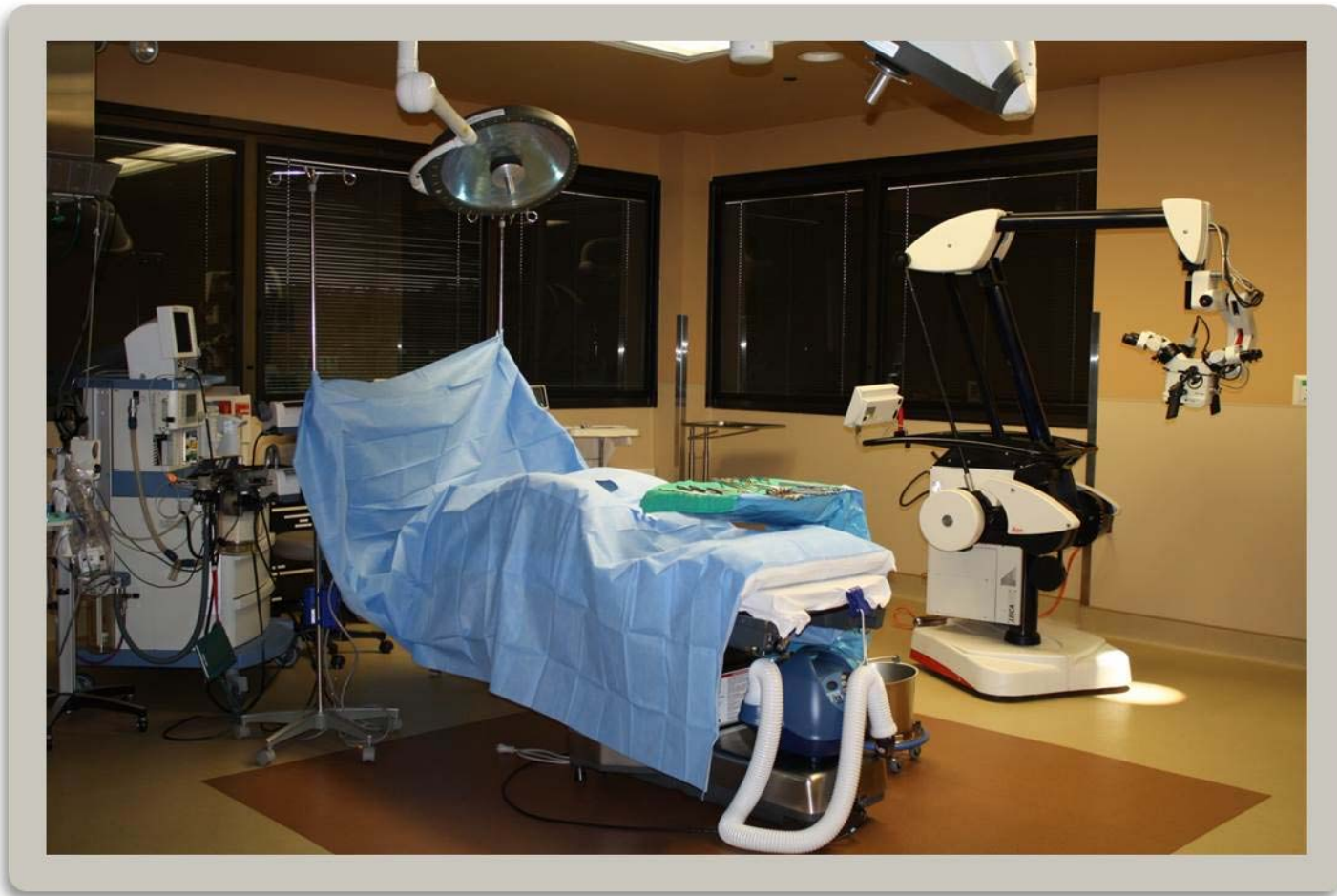
- Opened October 2nd, 2012
- Over 4,000 procedures performed in our first year
- 10,000 square feet
- Recently our Certificate of Need (CON) was approved for spine surgery
- Only ASC in Illinois area dedicated solely to the diagnosis and treatment of painful conditions and spine conditions from injections through open surgeries as well as minimally invasive surgery.
- State of the art care



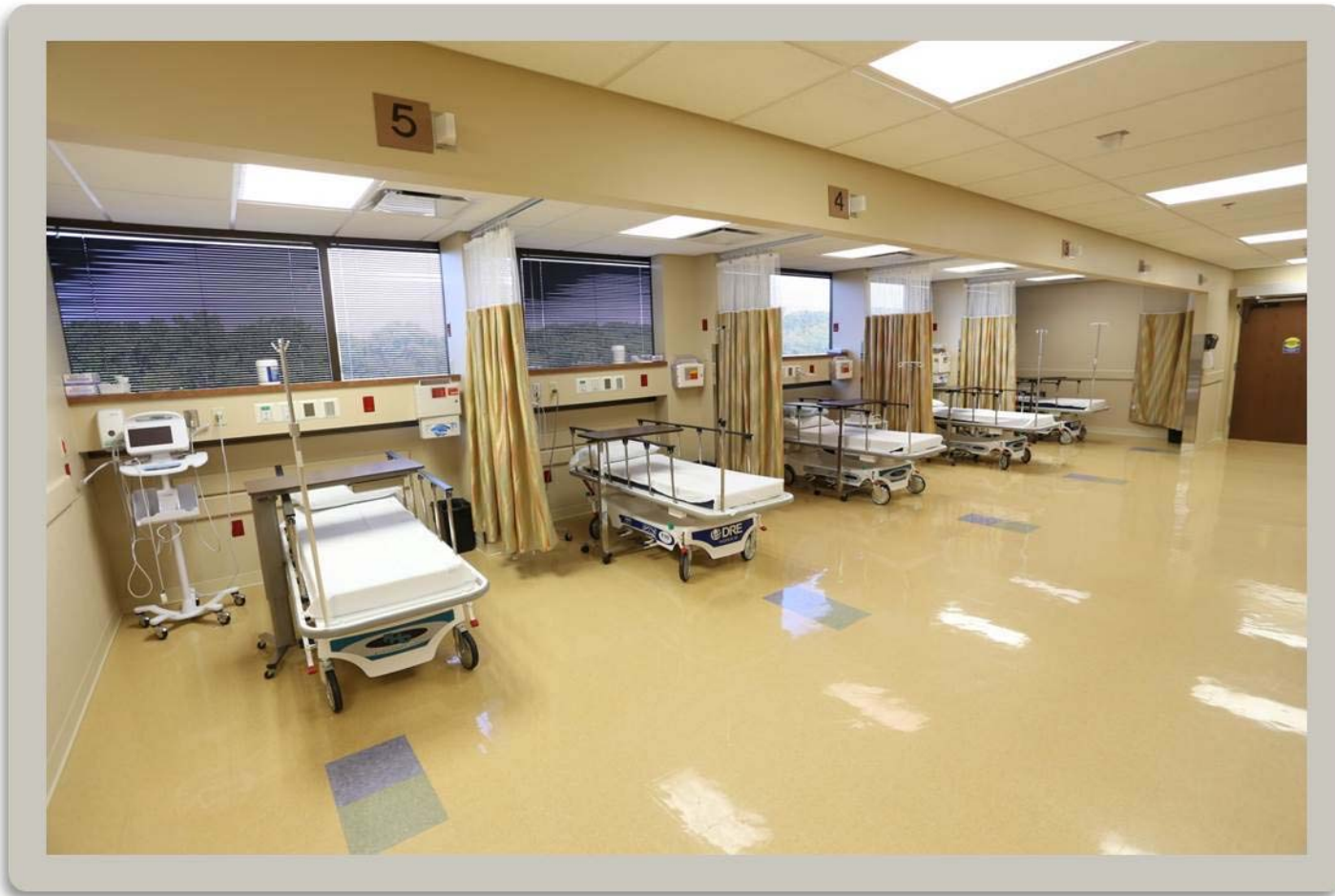
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IASP PAIN DEFINITION

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage.



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ACUTE PAIN

- Nociception
- Biological purpose
- Resolves as healing progresses



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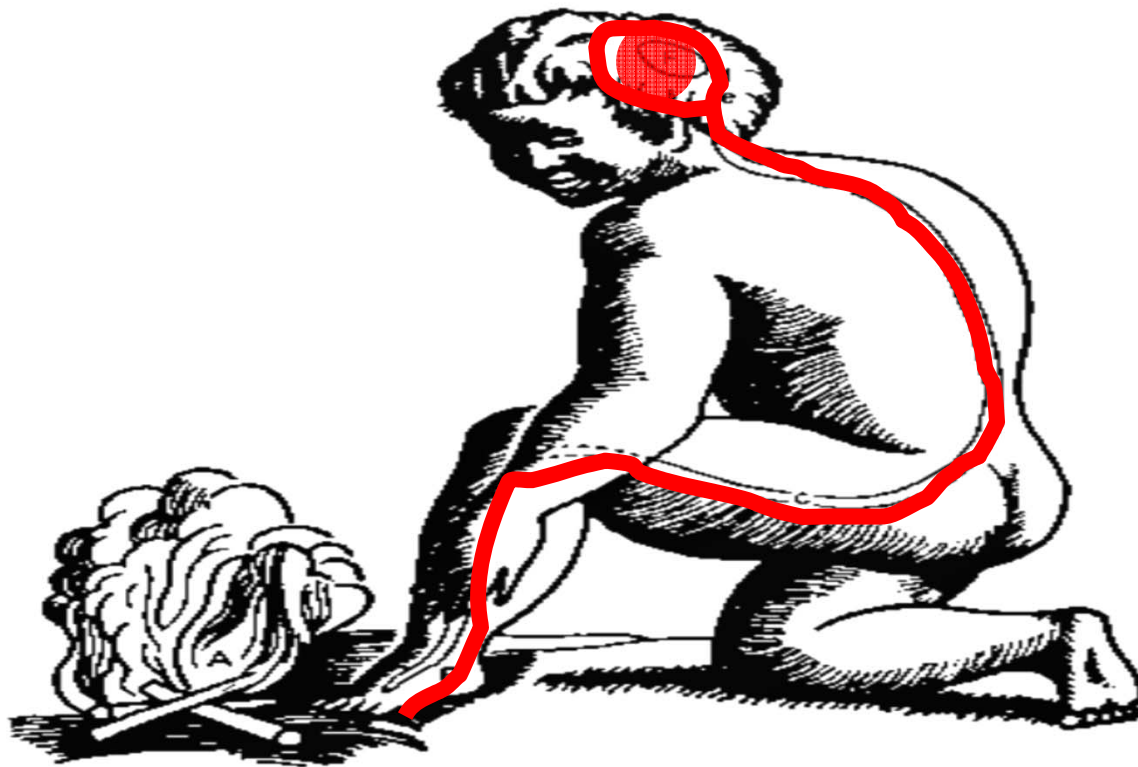


FIG. 1-1. Descartes' (1664) concept of the pain pathway. He writes: "If for example fire (A) comes near the foot (B), the minute particles of this fire, which as you know move with great velocity, have the power to set in motion the spot of the skin of the foot which they touch, and by this means pulling upon the delicate thread (cc) which is attached to the spot of the skin, they open up at the same instant the pore (d.e.) against which the delicate thread ends, just as by pulling at one end of a rope makes to strike at the same instant a bell which hangs at the other end." From Melzack, R., and Wall, P.D.: *Pain mechanisms: A new theory*. Science, 150:971, 1965.





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NON-ACUTE PAIN

- Pain that persists beyond the normal course of healing
- May be a destructive, malevolent force



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MOST PATIENTS:

- Want to get better
- Are not seeking secondary gain
- Are not malingering
- Do not have a low pain threshold
- Do not have a personality disorder
- Do not have a mental illness



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BIOLOGICAL CAUSES FOR PAIN:

- Muscle strain
- Joint inflammation
- Spinal nerve root irritation
- Disc inflammation
- Nerve damage
- Scar



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MANAGEMENT OPTIONS:

- Invasive treatments
- Physical therapy
- Medications
- Implantable pain systems
- Surgery
- Alternative medicine



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**Interventional Pain Management
is a Distinct Medical Specialty with it's
own Medicare and AMA Designation
Code**



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WHEN TO CONSULT THE ILLINOIS PAIN INSTITUTE

- The sooner the better
- Precision diagnosis
- Precision treatment
- Inadequate analgesia
- Previous treatment failure
- Excessive side effects from present treatment



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PAIN MANAGEMENT OPTIONS:

- Invasive interventional procedures
- Physical therapy
- Medication management



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OUTCOME FOR INTERVENTIONAL PAIN TREATMENT

- Make a diagnosis (usually)
- Reduce and control pain
- Improve functional ability



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MEDICATION MANAGEMENT

- NSAIDS and Cox-2
- Acetaminophen
- Anti-depressants
- Anti-seizure drugs
- Muscle relaxants
- Tramadol(Ultram)
- Opiates



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INVASIVE SPINAL PROCEDURES

- Increasing number of “pain” doctors
- Exponential increase in the use of invasive pain treatments



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COMMON GOALS OF PHYSICIANS, PATIENTS AND INSURERS:

- Identify and treat disease
- Control pain and improve function
- Prevent inappropriate and/or ineffective medical care
- Weigh risks and benefits of therapy
- Return patient to work and normal life
- Avoid red tape and administrative hassles
- Obtain payment for services rendered



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TRENDS

- Interventional Pain Medicine as an independent specialty
- Continuing advances in pain science
- Precision diagnosis and treatment of pain
- Cost containment



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WHEN PAIN PERSISTS

- Multiple physicians may become involved
- Medical care may not be coordinated
- Iatrogenic injury is possible e.g. “failed back surgery syndrome”
- Patients are often labeled “crocks”
- Chemical dependency may occur
- Costs may escalate



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EVALUATION

- MUSCULAR/SOFT TISSUE PAIN
- FACET JOINT PAIN
- SACROILIAC JOINT PAIN
- CANCER PAIN
- NERVE IRRITATION
- DISCOGENIC PAIN
- ADHESIONS



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SPINAL AND BACK PAIN

- Anatomic anomalies (scoliosis)
- Metabolic (osteoporosis)
- Infection
- Inflammatory disease (osteoarthritis)
- Malignant neoplasm
- Trauma (strain, facet arthritis)
- Degenerative disease (spinal stenosis)
- Visceral pain (referred)
- Psychosocial



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MYOFASCIAL PAIN SYNDROME

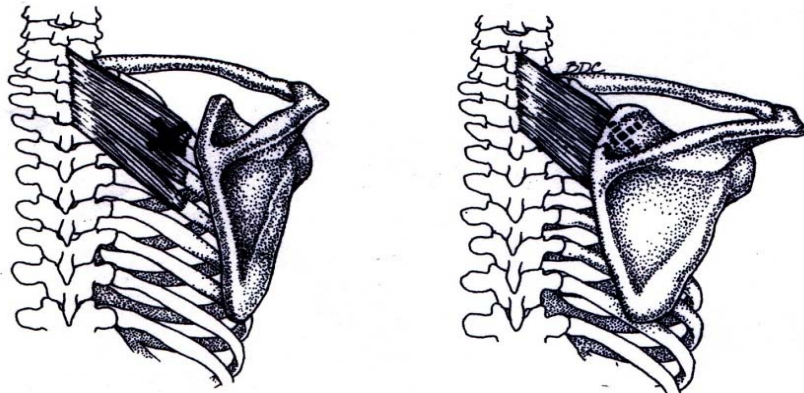
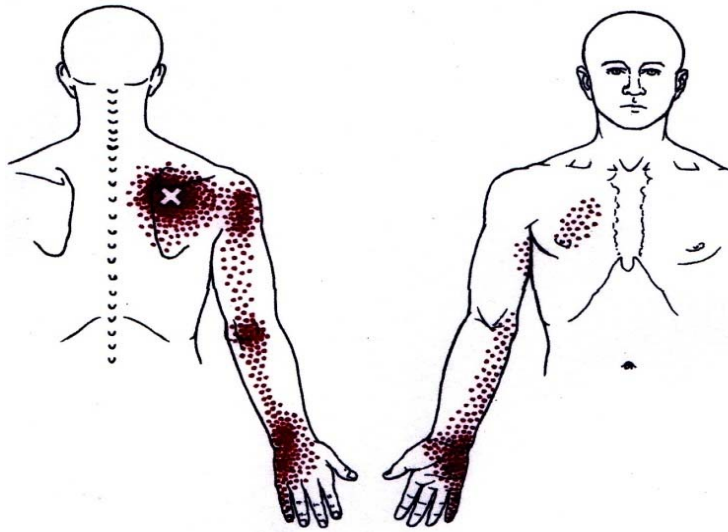
- Diagnose cause and muscles affected
- Correct perpetuating factors
- Medications
- Injection therapy
- Physical therapy



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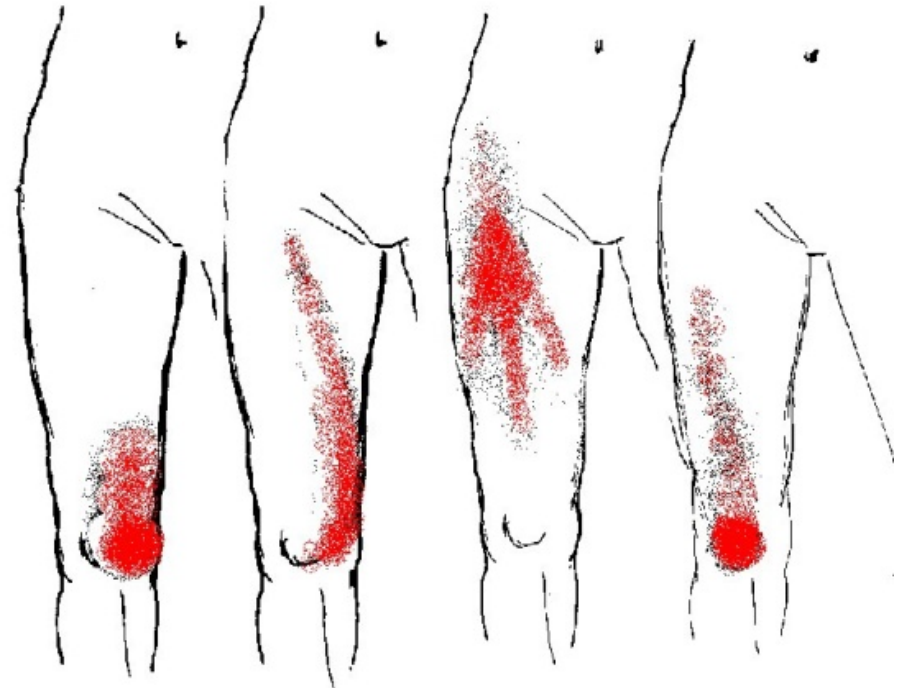
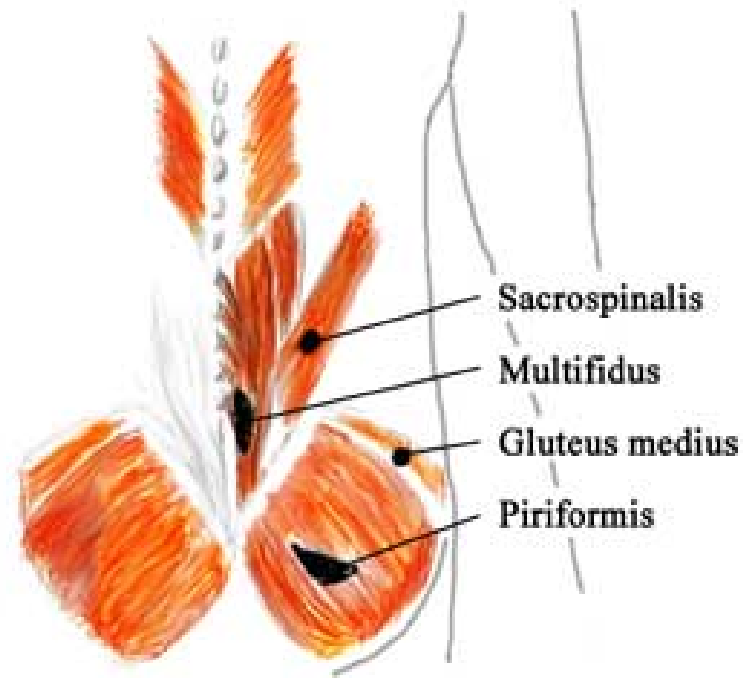
MYOFASCIAL TRIGGER POINT

- SERRATUS POSTERIOR SUPERIOR



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Common Trigger Points in Myofascial Pain Syndrome



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FLUOROSCOPY HAS REVOLUTIONIZED PAIN MANAGEMENT

- Increased precision
- Increased safety
- Increased comfort
- Better outcomes
- Better science
- New procedures

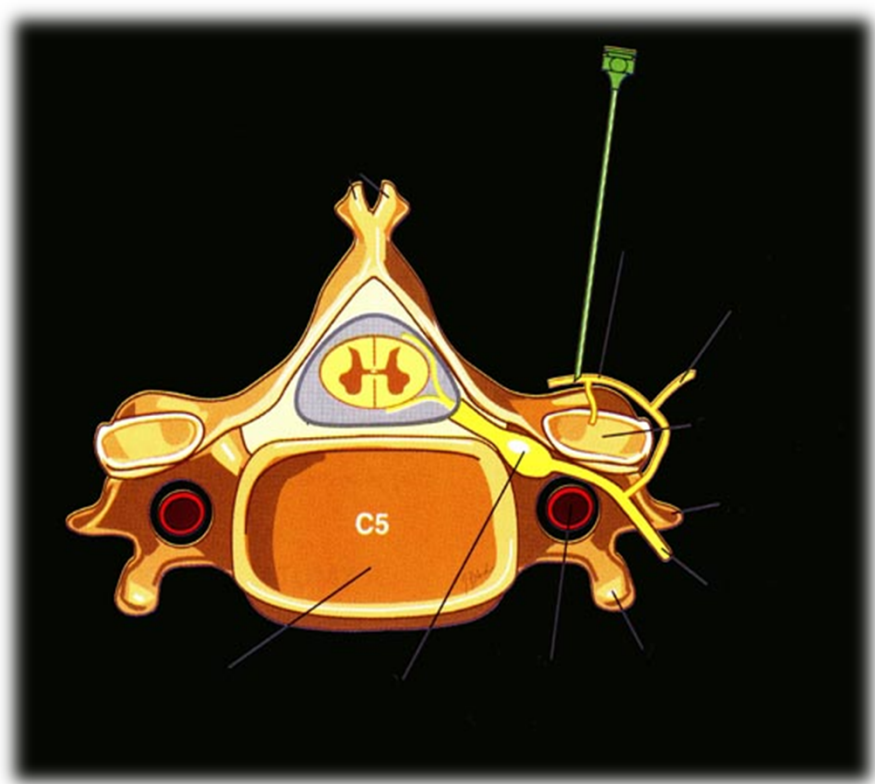
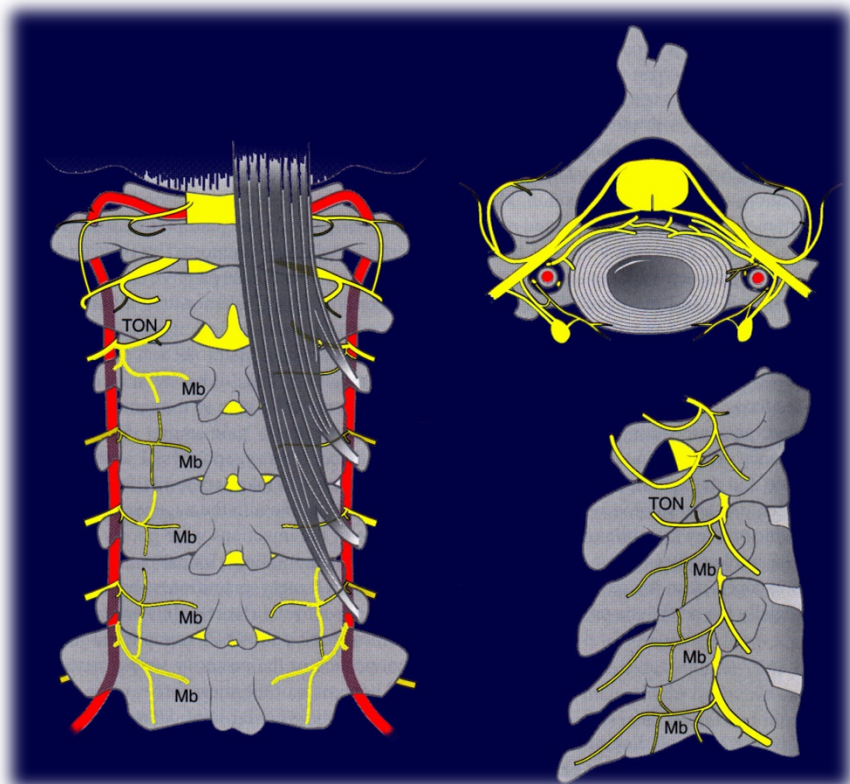


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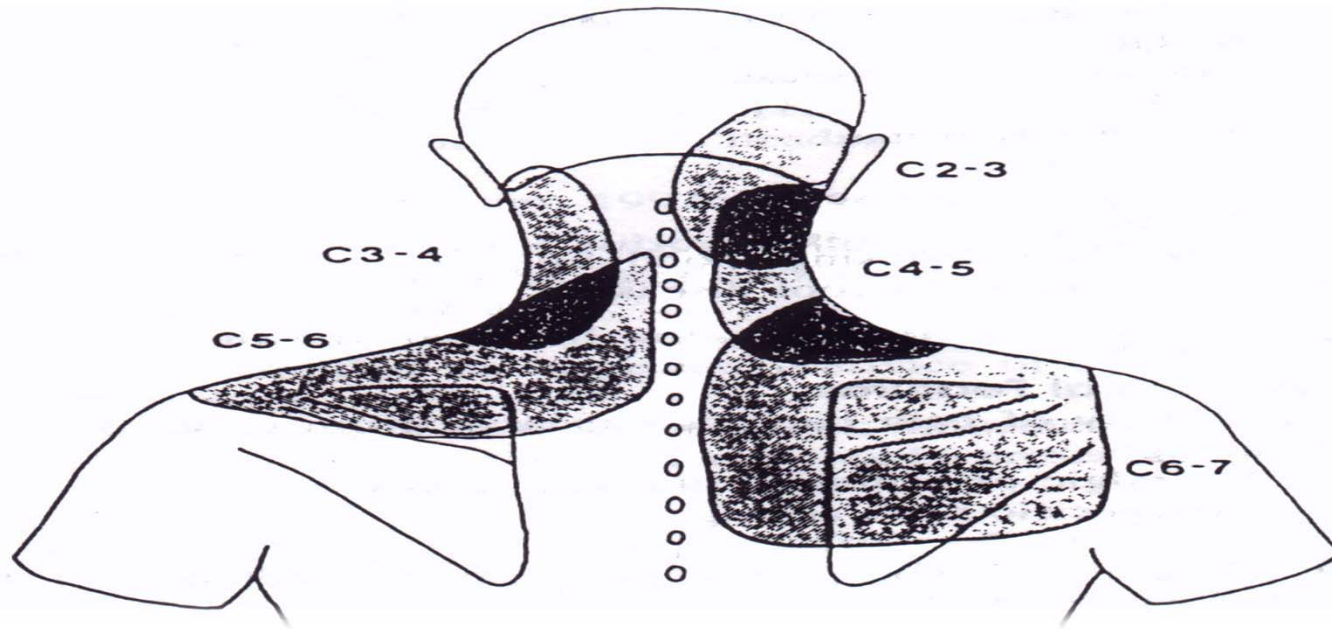


CERVICAL FACETS



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CERVICAL FACET PAIN



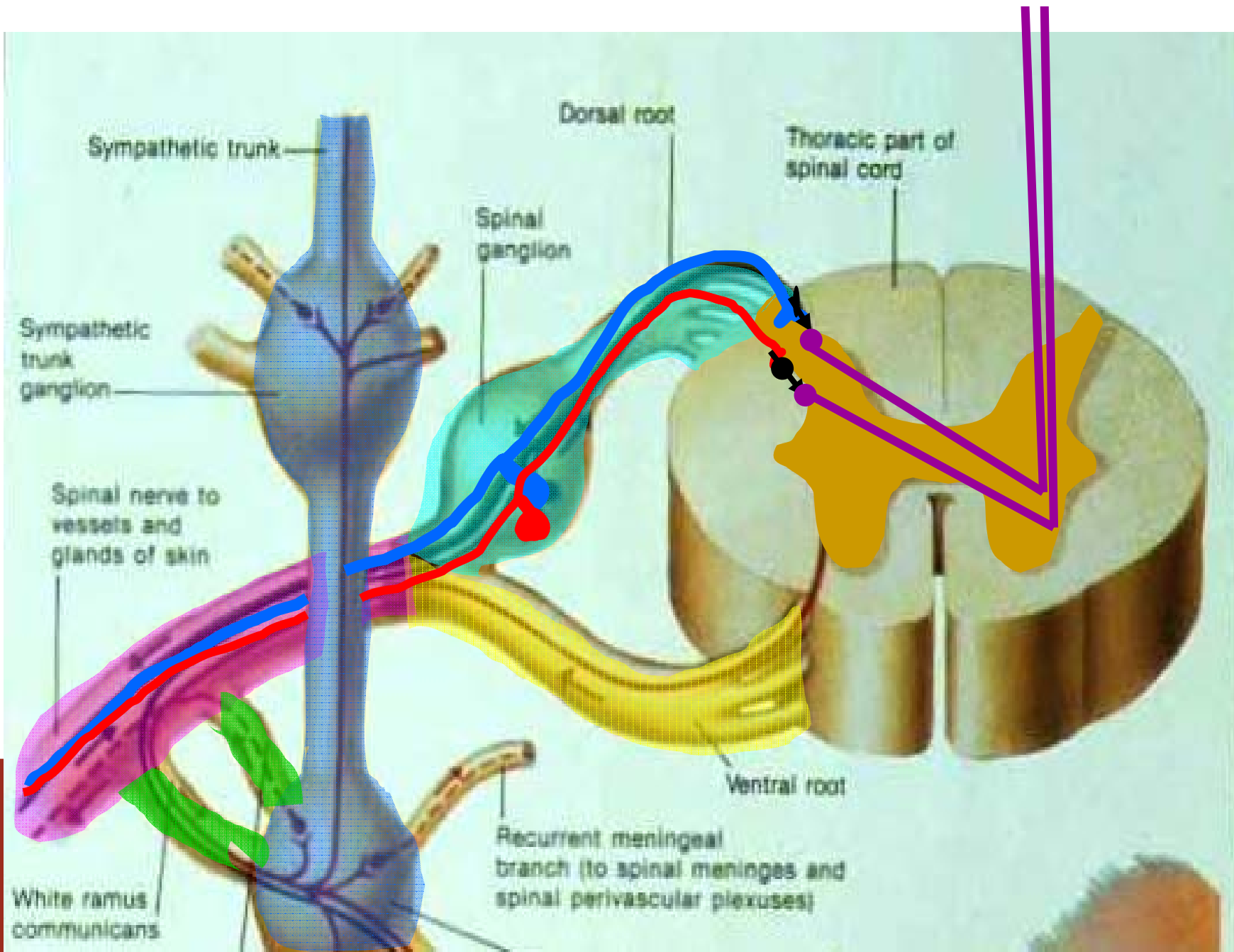
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BACK PAIN

- More than 75% of adults will experience significant LBP
- 5% will require hospitalization
- 1-2% require some type of surgical procedure
- Significant cause of lost work



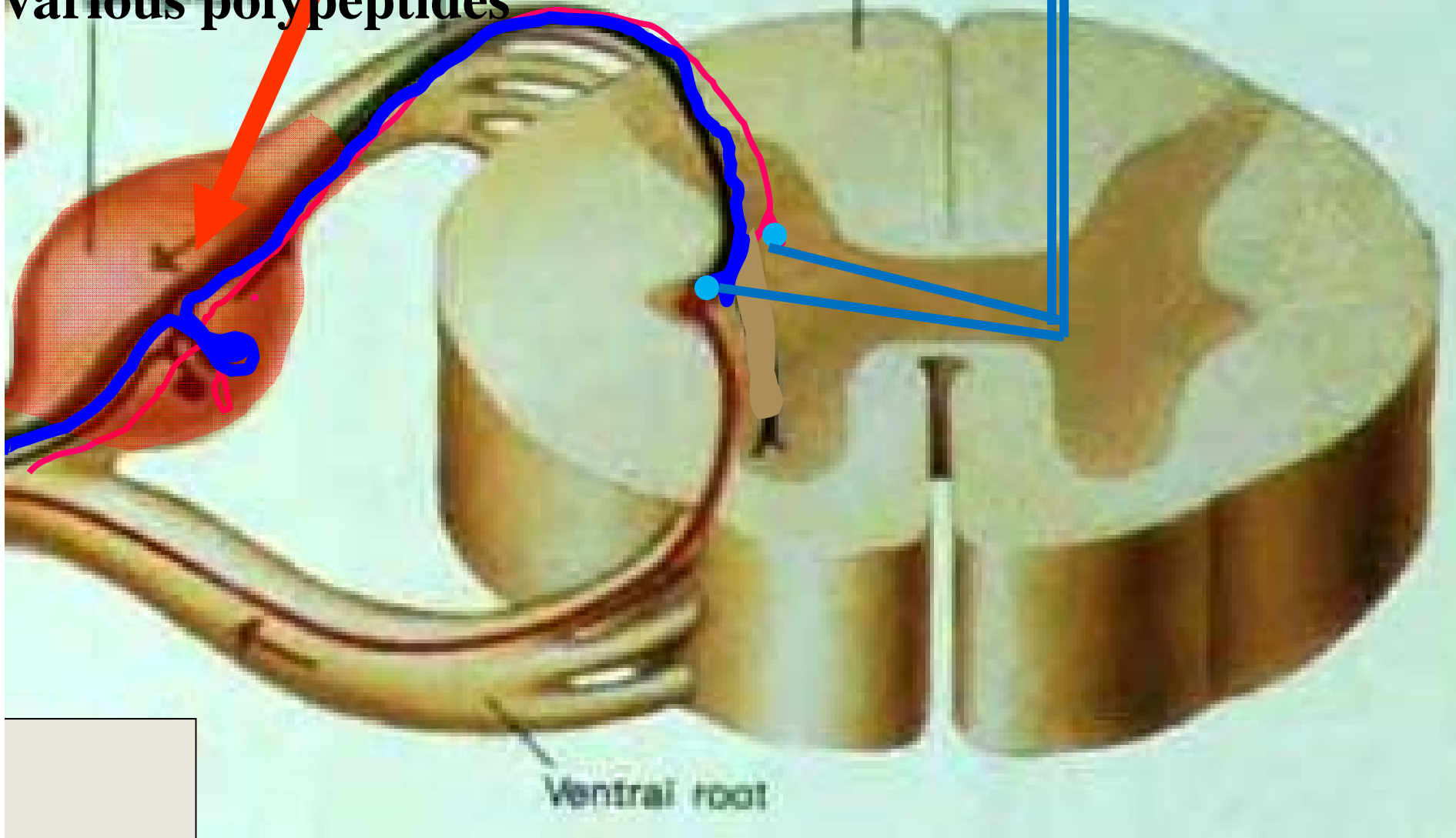
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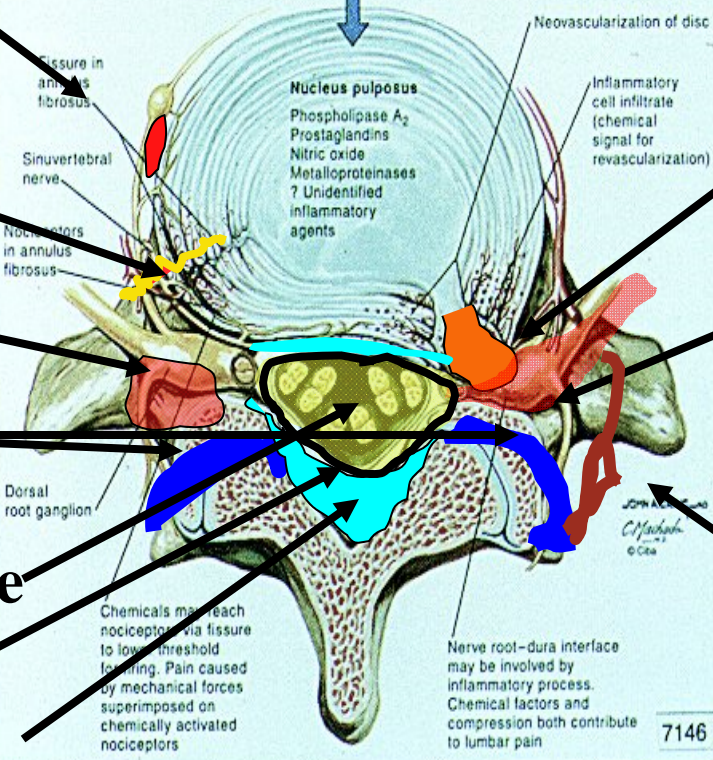
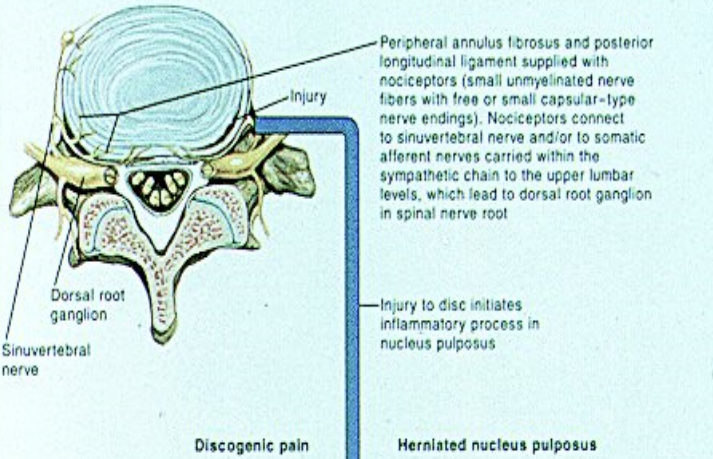
DISC

Thoracic part of spinal cord

phospholipase A2
prostaglandin E
various polypeptides



Role of Inflammation in Lumbar Pain



sympathetic ganglion

annular fissure

dorsal root ganglion

facet joints

intrathecal space

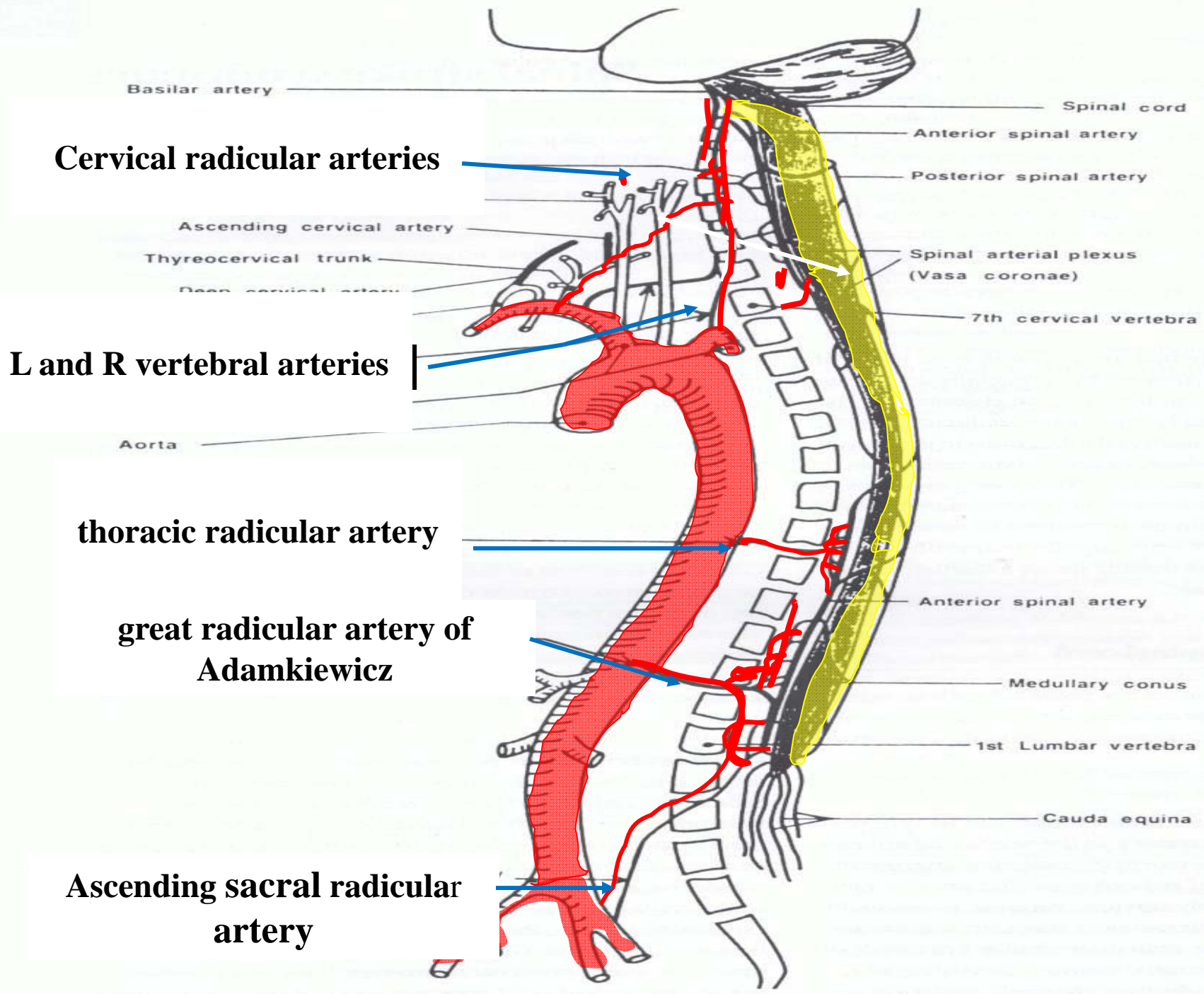
dura

epidural space

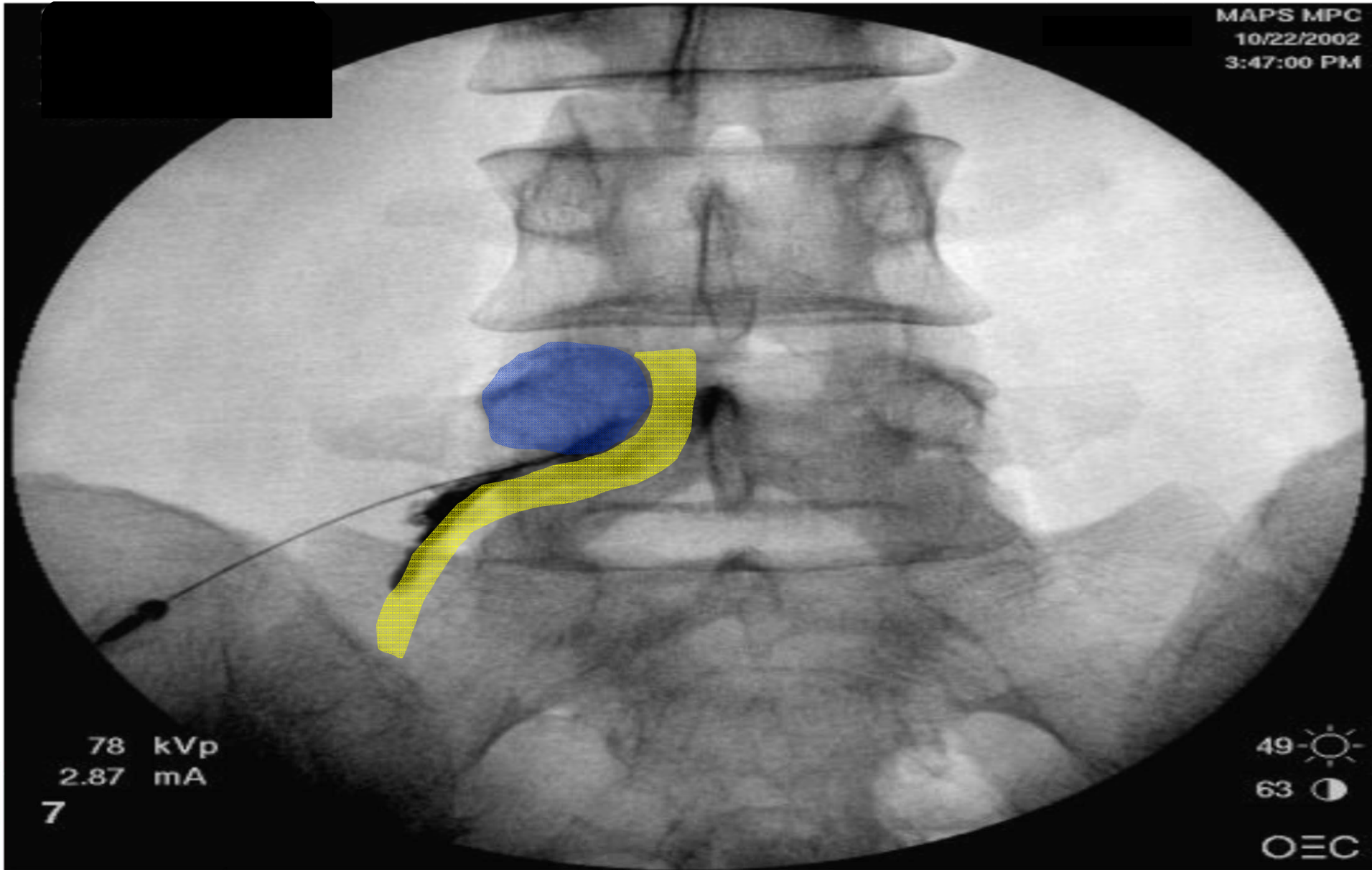
disc herniation

compressed dorsal root ganglion

medial branch nerve to facet joint



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78 kVp
2.87 mA
7

49 ☀
63 ☾
OEC



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FACET JOINT ARTHROPATHY

SYMPTOMS

- Hip and buttock pain
- Cramping lower extremity pain
- Low back stiffness

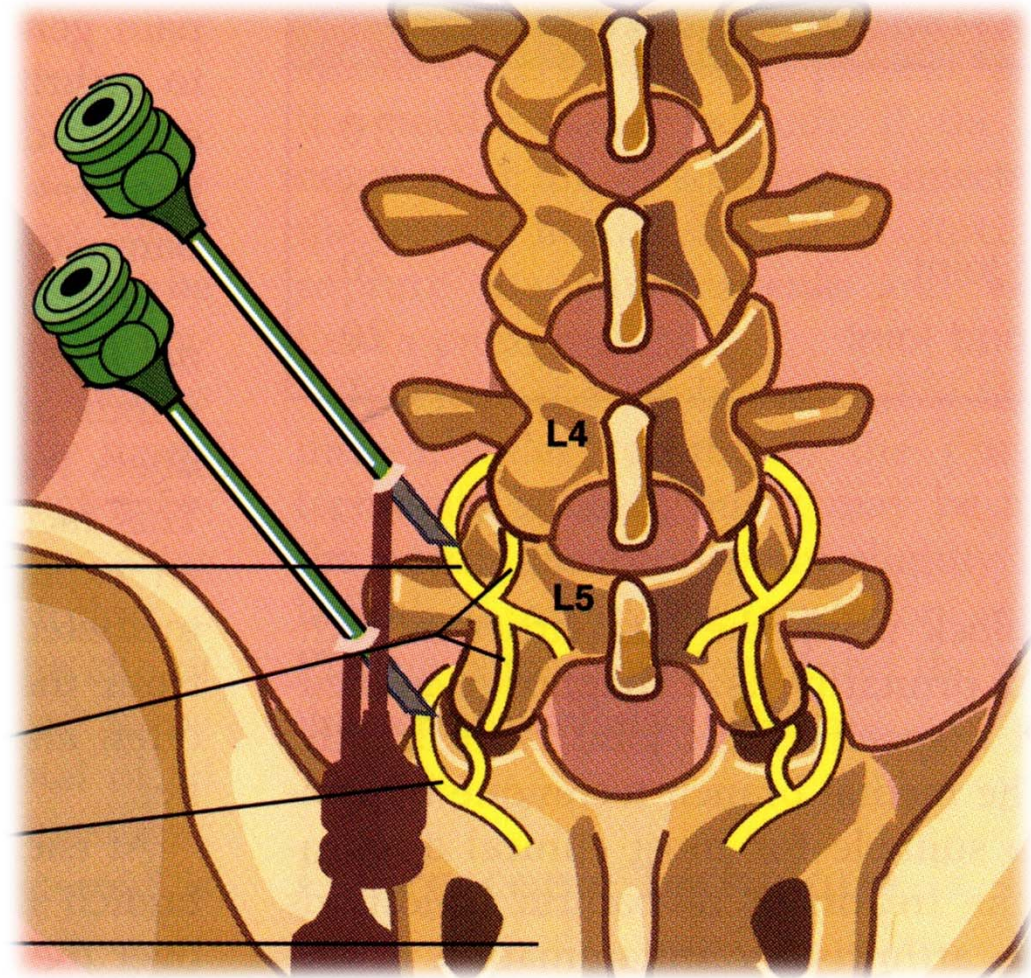
SIGNS

- Paraspinal tenderness
- Pain on extension or lateral flexion
- Pain on affected side on lateral rotation
- Hip, Buttock, or Back pain on strait leg raise
- Absence of nerve root irritation signs



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LUMBAR FACETS



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SACROILIAC JOINT PAIN

Pain in ipsilateral leg or groin

Pain after “rotation with axial load”

DIAGNOSIS

- Radiographs, CT, MRI
- Injection of local anesthetic

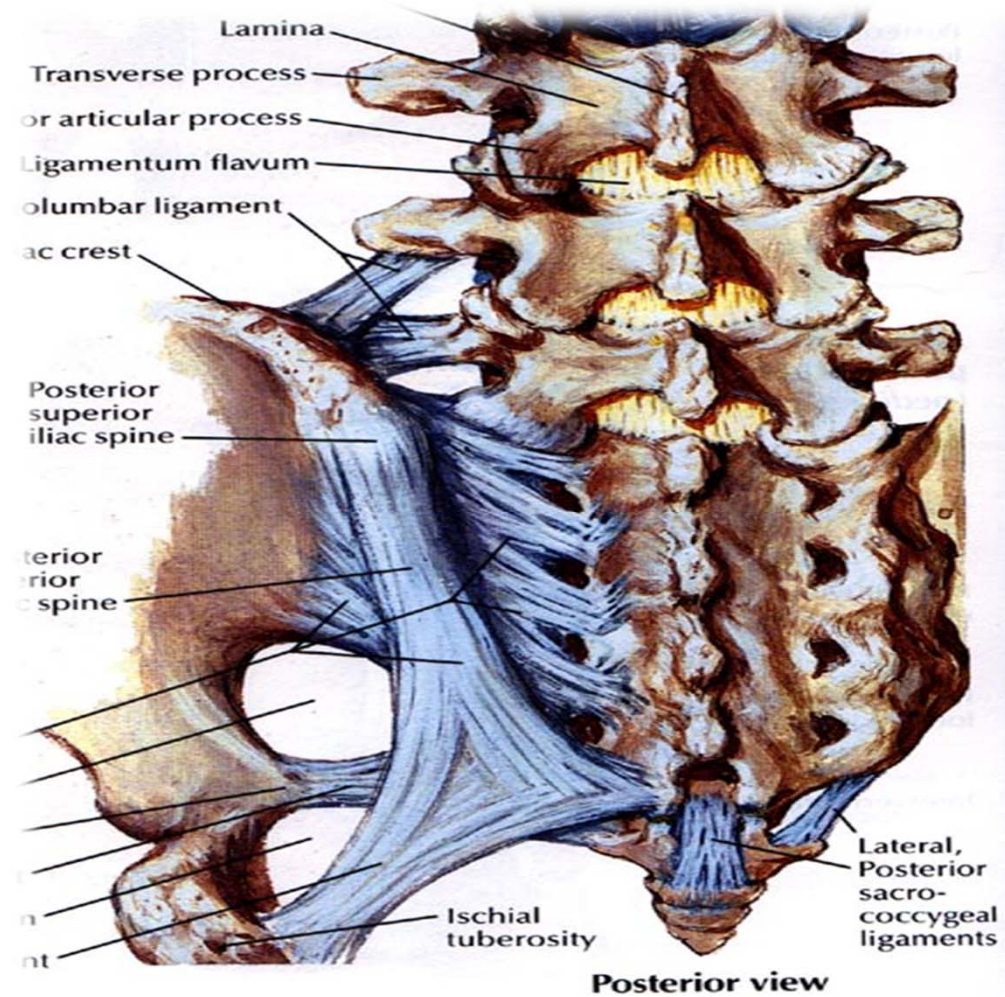
TREATMENT

- Medications
- Sacroiliac joint injection vs. sacral nerve blockade
- Radiofrequency lesioning
- Physical therapy
- Correct abnormal force vectors



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SACROILIAC JOINT PAIN



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DISCOGENIC PAIN

- AXIAL
- BUTTOCK
- HIP
- GROIN
- LOWER LIMB



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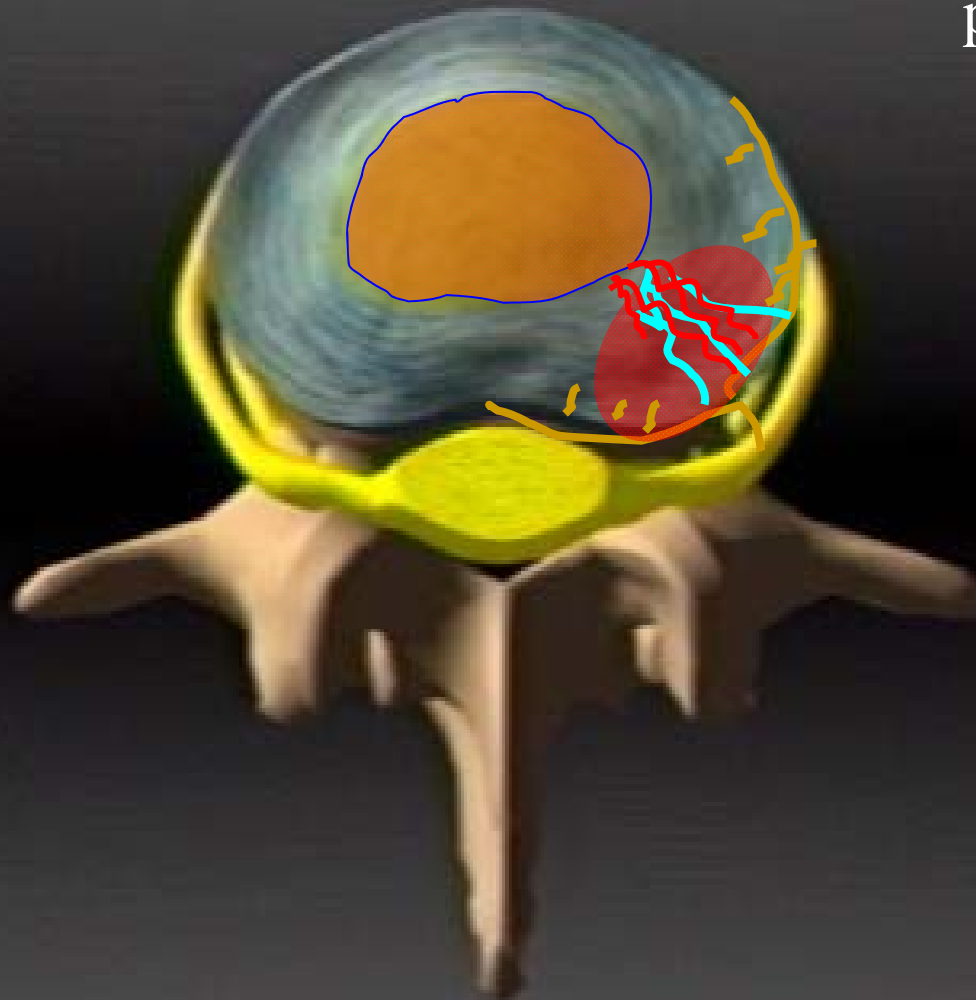
Internal Disc Disruption

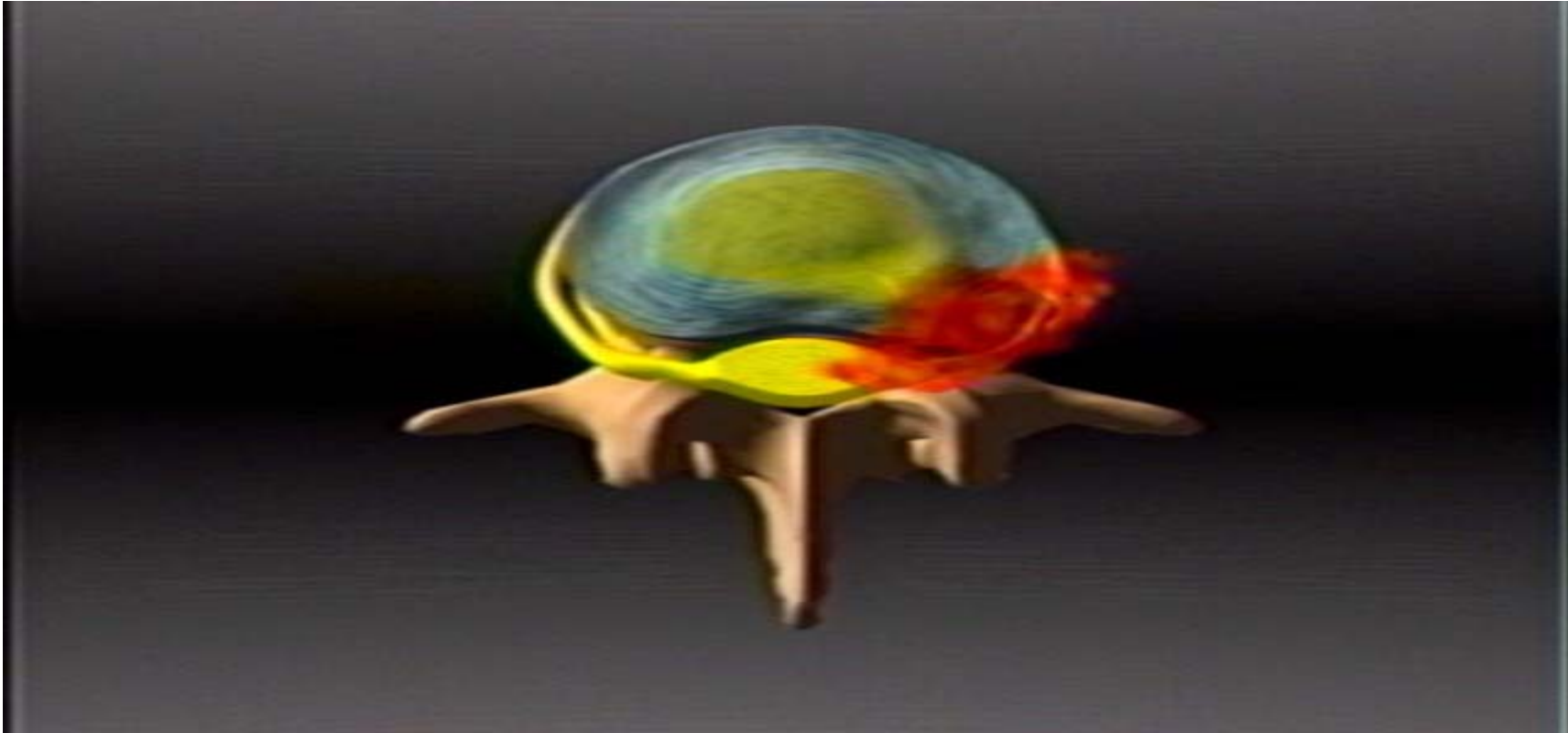
phospholipase A2

prostaglandin E

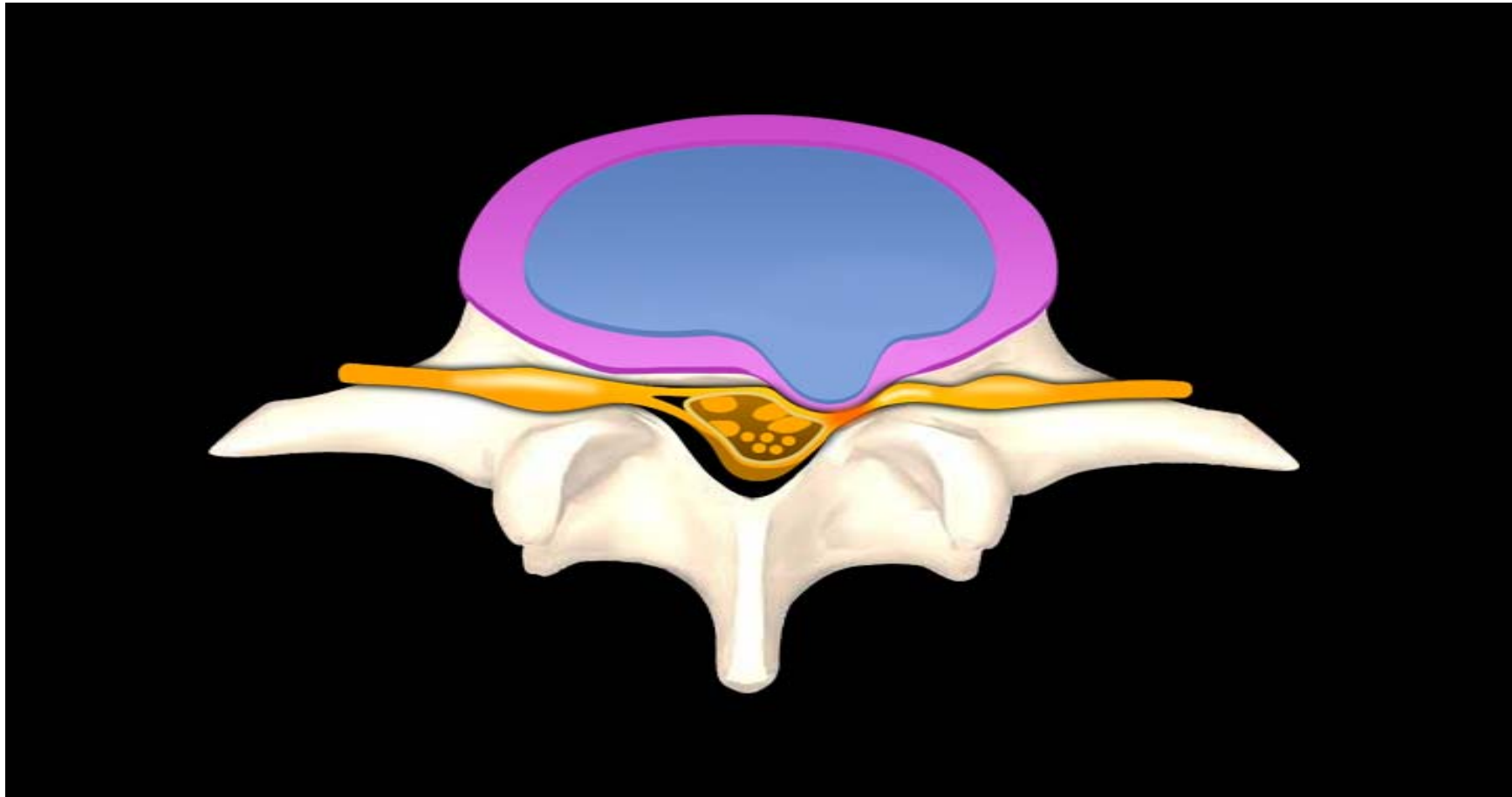
histamine

inflammatory
polypeptides

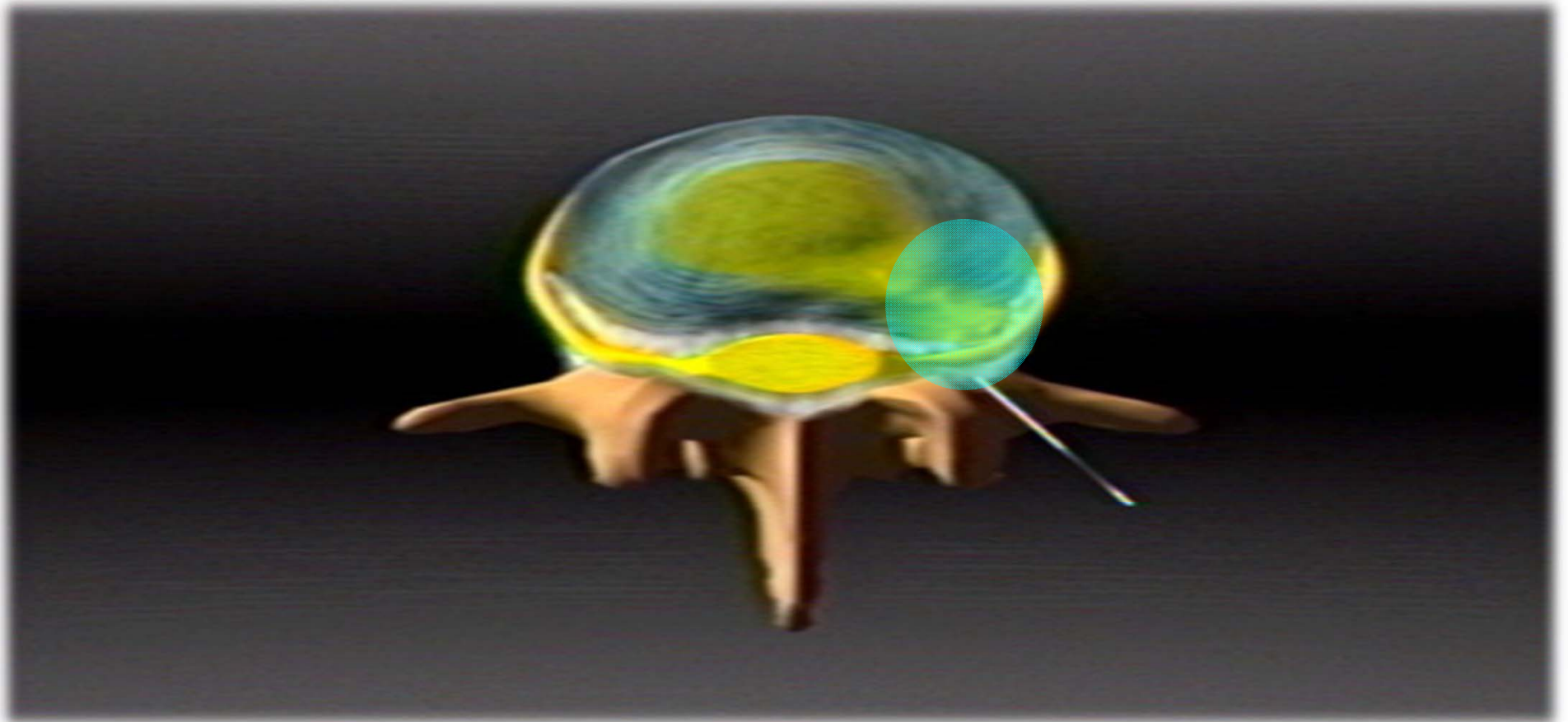




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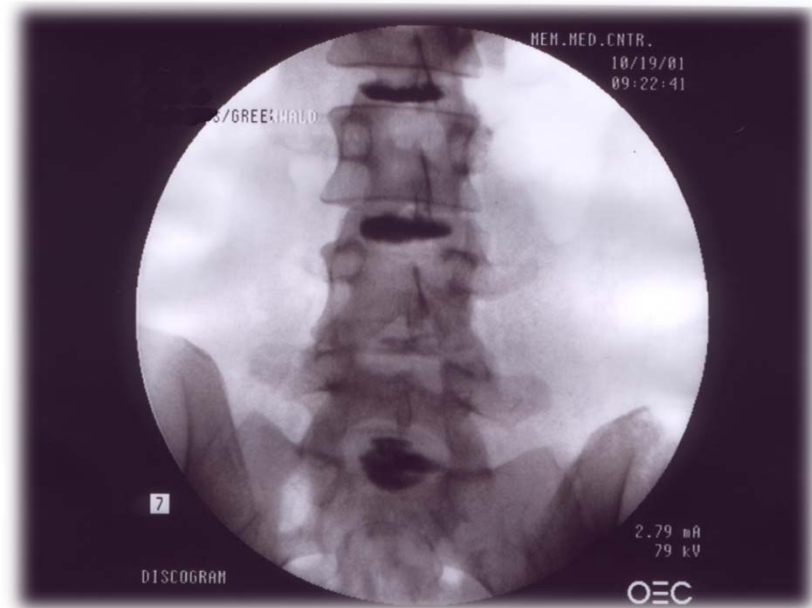
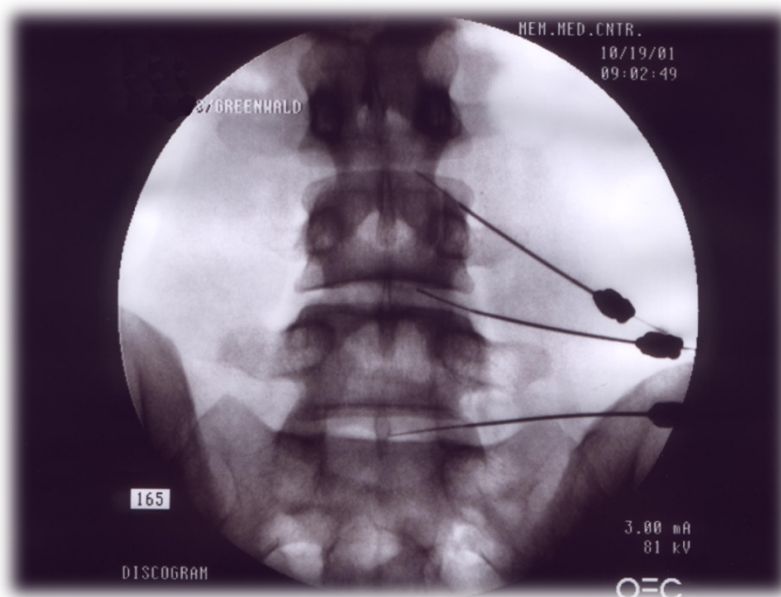
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DISC EVALUATION

DISCOGRAPHY



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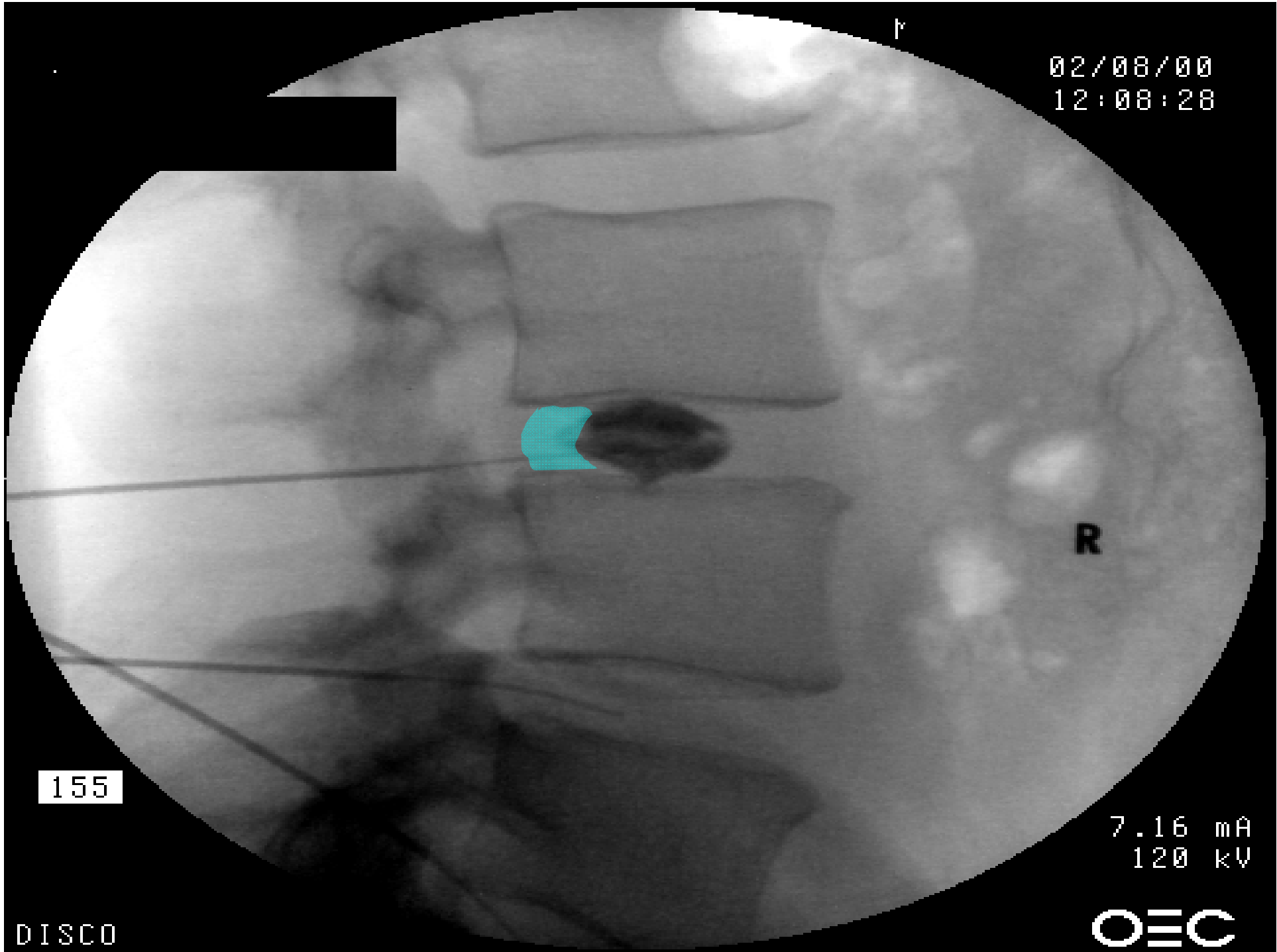
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DISCO

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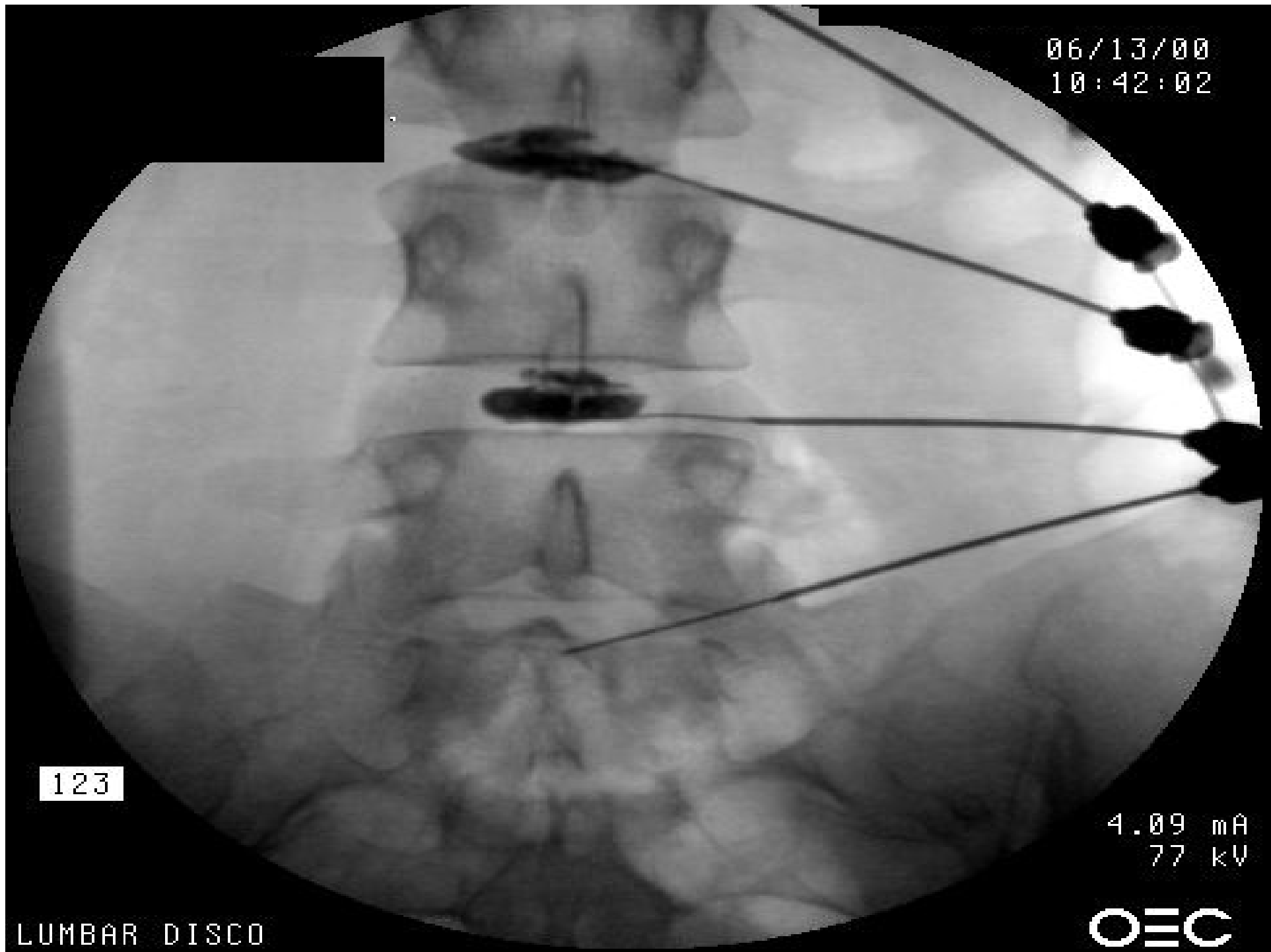
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LUMBAR DISCO

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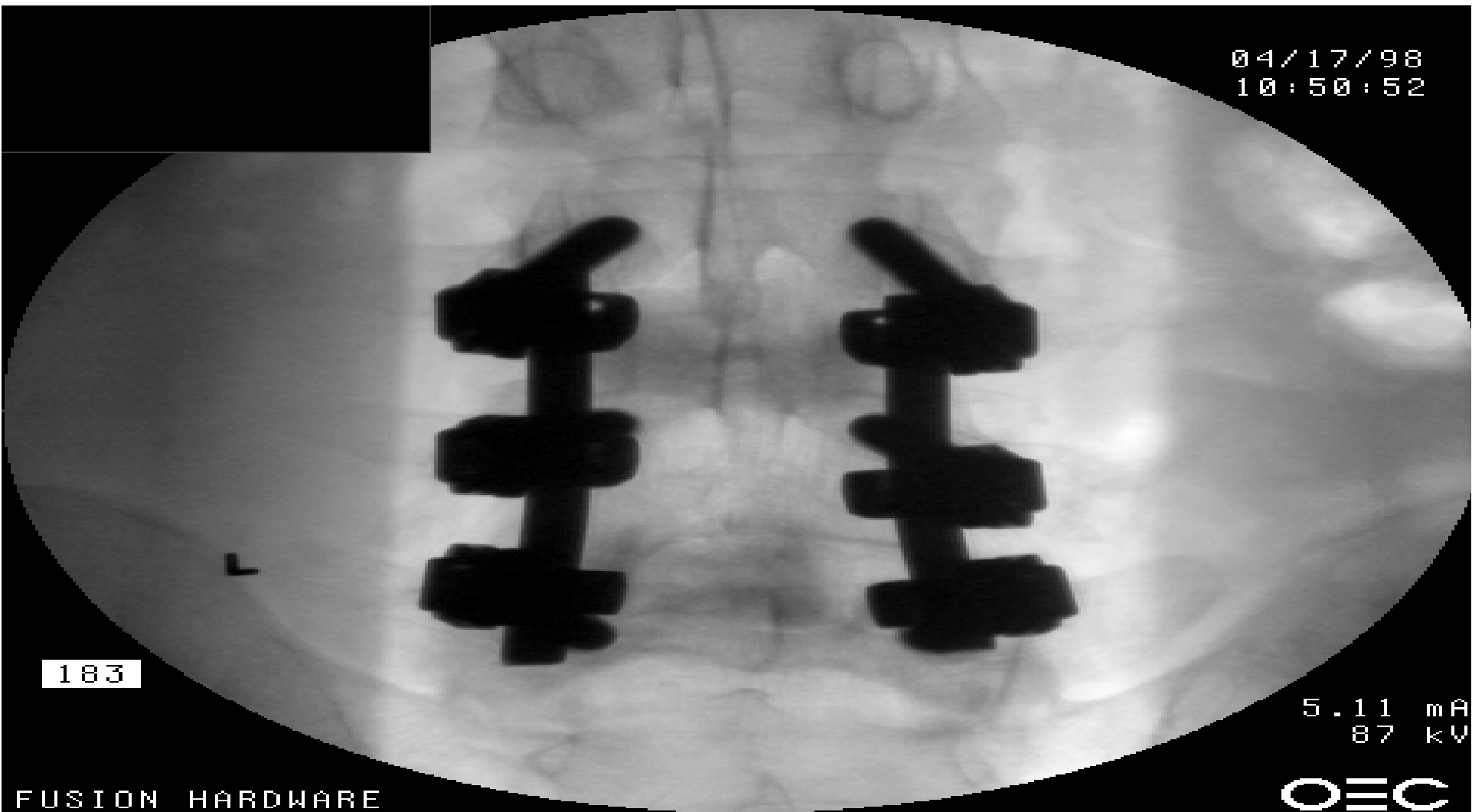
SPINAL CORD STIMULATOR

- PATIENT SELECTION CRITERIA
- Demonstrated pathology
- Failure of conservative therapy
- Surgery not indicated
- No untreated drug habituation
- Psychiatric clearance
- Primarily radicular pain
- Successful trial
- No other contraindications



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04/17/98
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183

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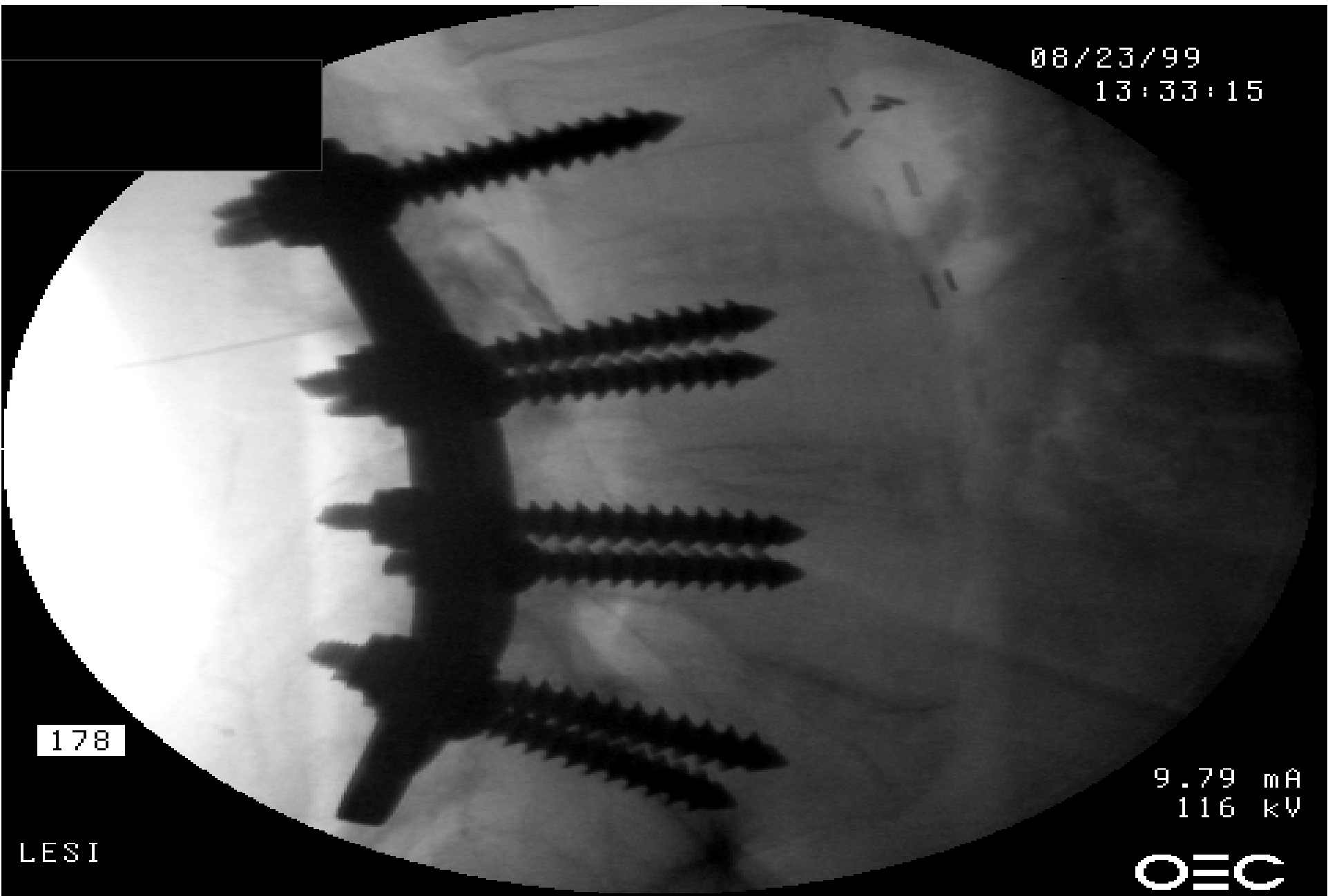
FUSION HARDWARE

OEC



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178

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LESI

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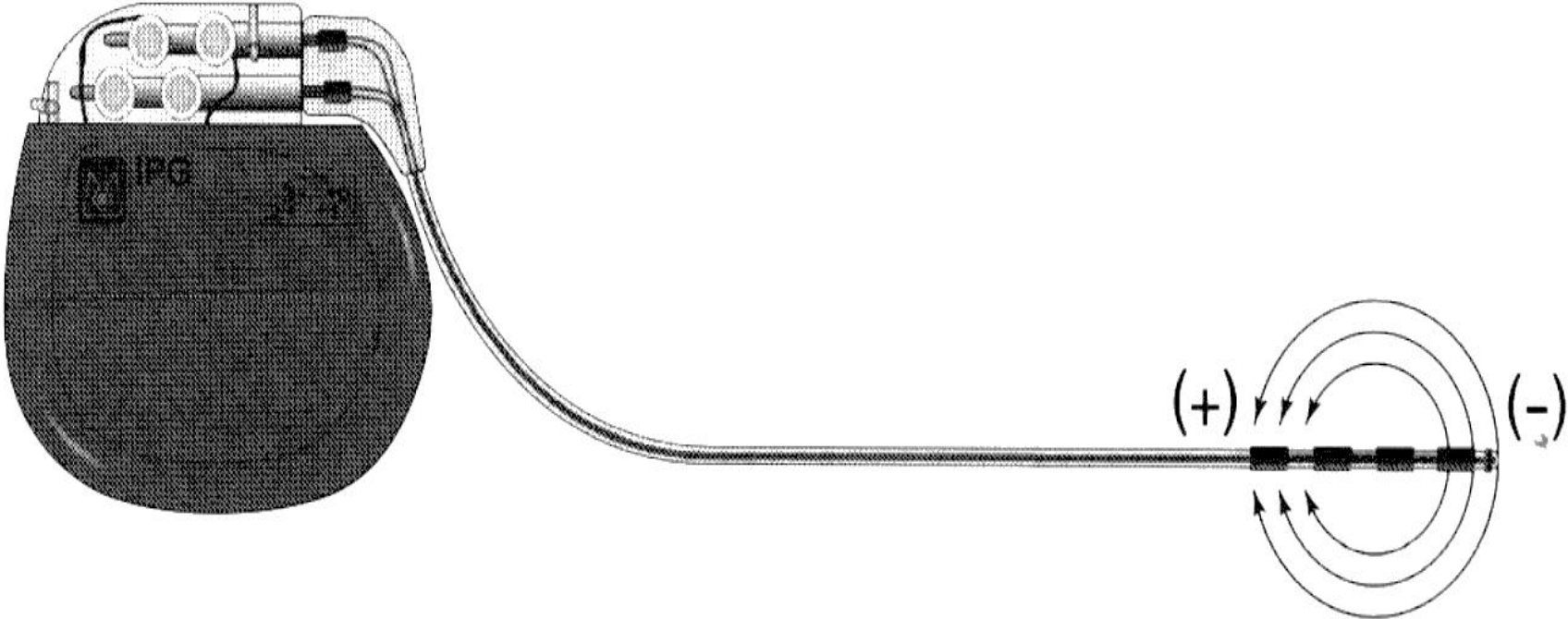
SPINAL CORD STIMULATOR

- Failed Back Surgery Syndrome (Post-Laminectomy Syndrome)
- CRPS TYPE I and II (RSD, Causalgia)
- Adhesive Arachnoiditis
- Diabetic neuropathy
- Phantom limb pain
- Post-op longstanding knee pain



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SPINAL CORD STIMULATOR



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TREATMENT OPTIONS

- MEDICATIONS
- PROCEDURES
- PHYSICAL THERAPY
- SURGERY



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- Precision treatment
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- Excessive side effects from present treatment



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SUMMARY

- Non-acute pain is a complex problem.
- Pain science is advancing rapidly.
- Interventional Pain Medicine is a distinct medical specialty.
- Precise diagnosis and treatment is key
- Multidisciplinary care is an option



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QUESTIONS

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