



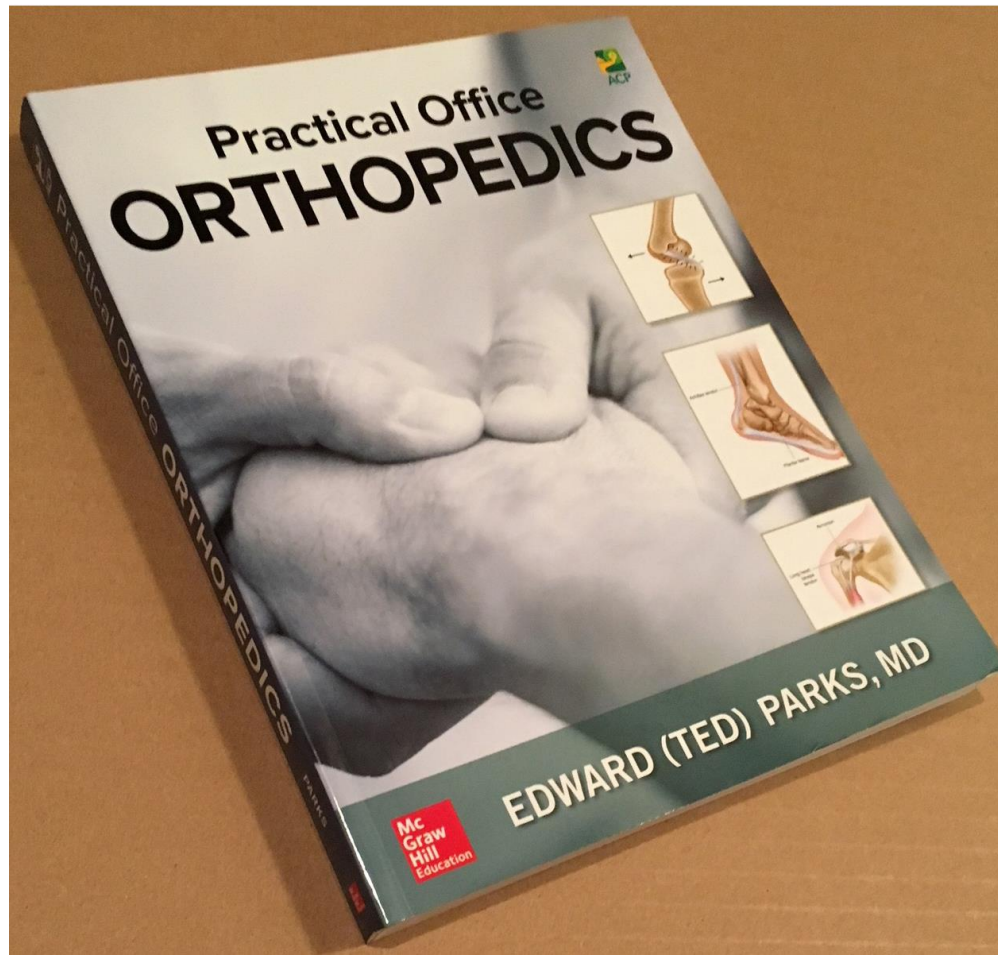
# **Choosing Wisely**

**in**

# **Orthopedics**

# Financial Disclosures

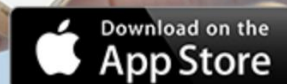






## Continue the Conversation

- ✓ Access information for both providers and patients
- ✓ View over 500 specialty society recommendations
- ✓ Share resources through text, email and social



## Clinician Lists

Complete lists of recommendations by society can be found by clicking the society name or via individual recommendation pages.

Your search returned 19 results

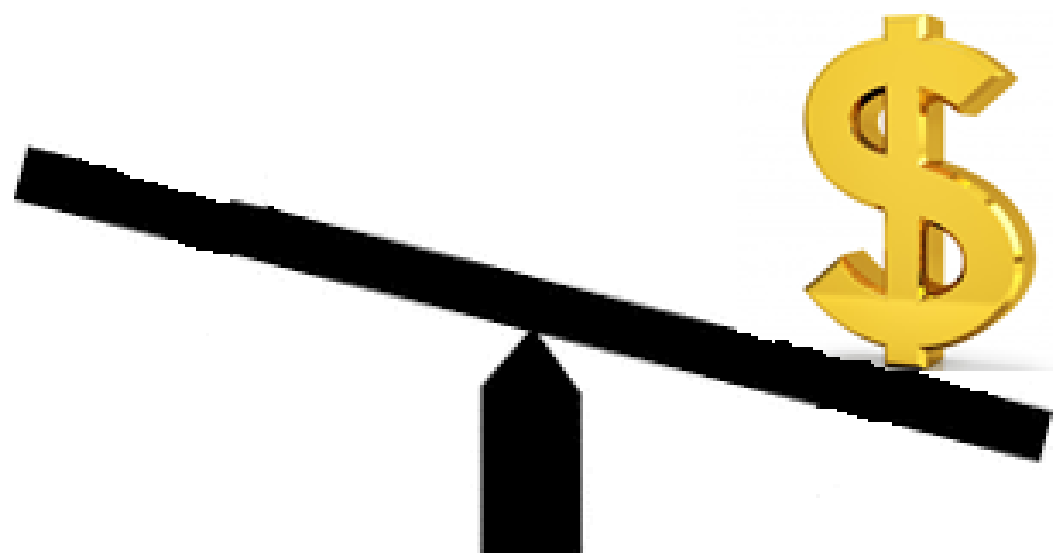
Search Recommendations

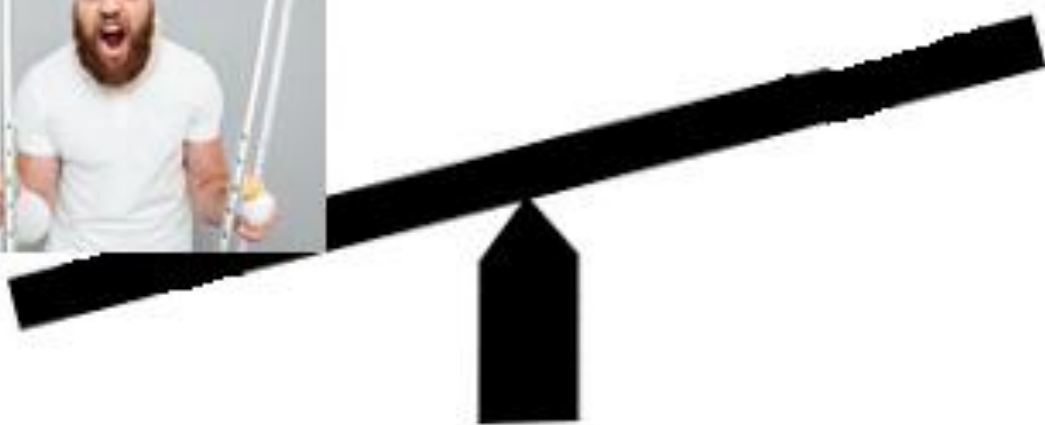
Society

Recommendation

KEYWORD

back pain







# Consider these...

- X-rays
- MRIs
- Cortisone injections
- Knee arthroscopy
- Total knee replacement
- Viscosupplementation (Synvisc, etc) injections



# X-Rays for back pain

- Acute (<6 weeks)
- Back pain, not leg pain
- Atraumatic
  - Sprains and strains not considered trauma





# What you don't want to miss

- Epidural abscess
- Expanding hematoma
- Neoplasm\*

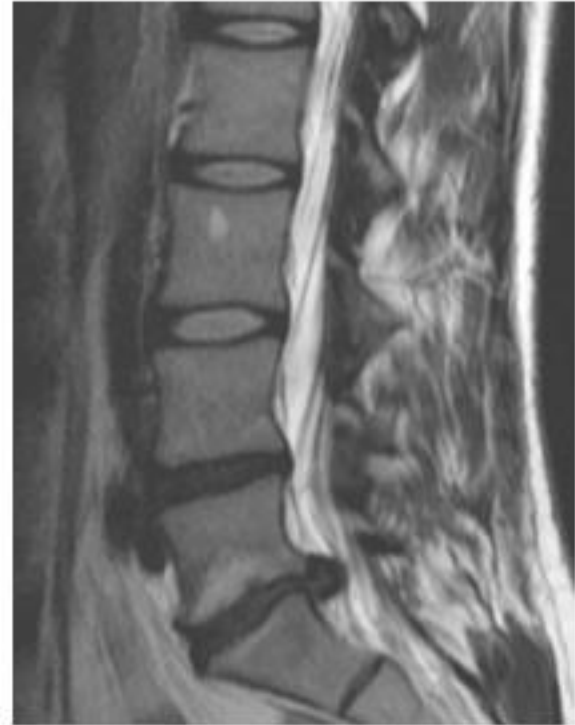
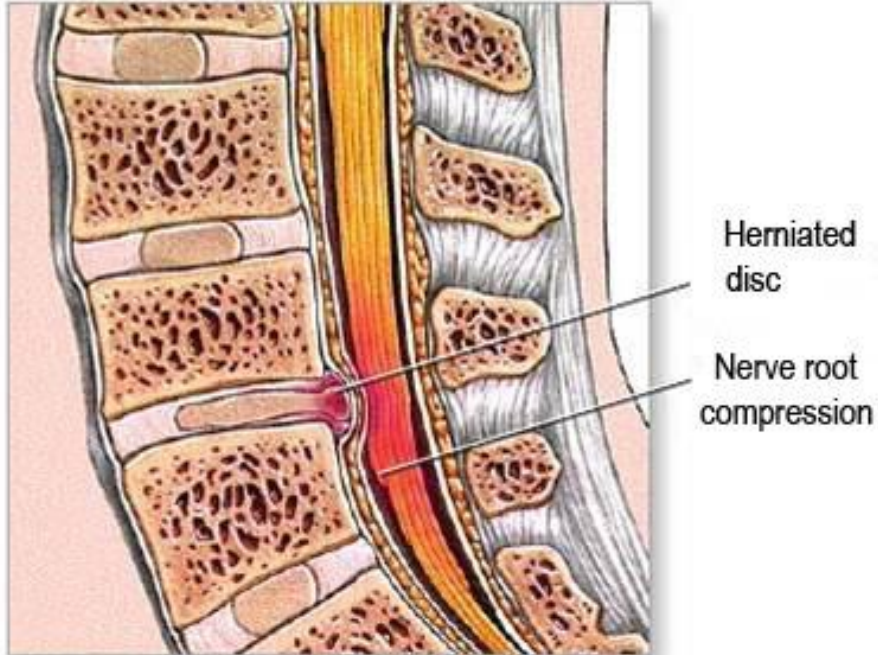
# Clues

- Progressive changes in neuro exam
- Acute changes in bowel/bladder function





# Nerve root impingement from disc



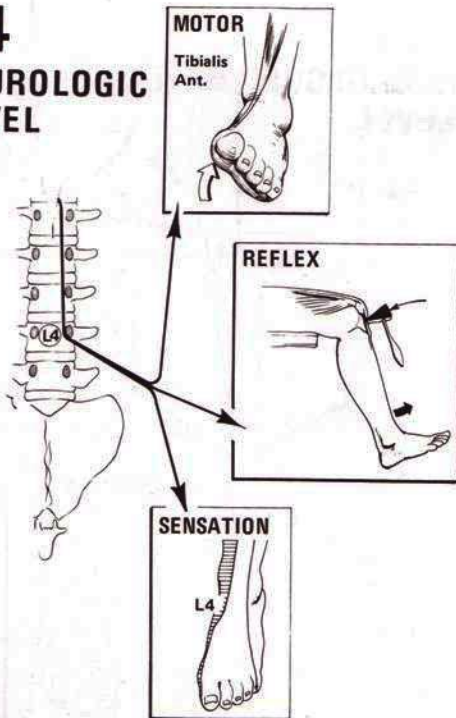
Lumbar disc herniations are ***often asymptomatic!***



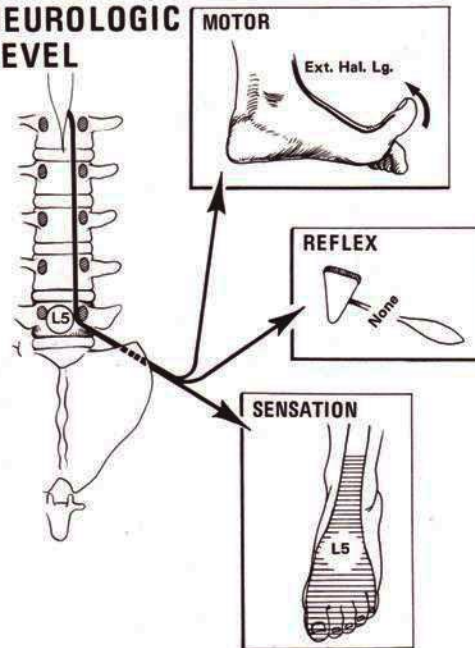
**Jensen MC**, Magnetic Resonance imaging of the lumbar spine in people without back pain. *N Engl J Med.* 1994;331:69-73.

# Classic Radicular Signs

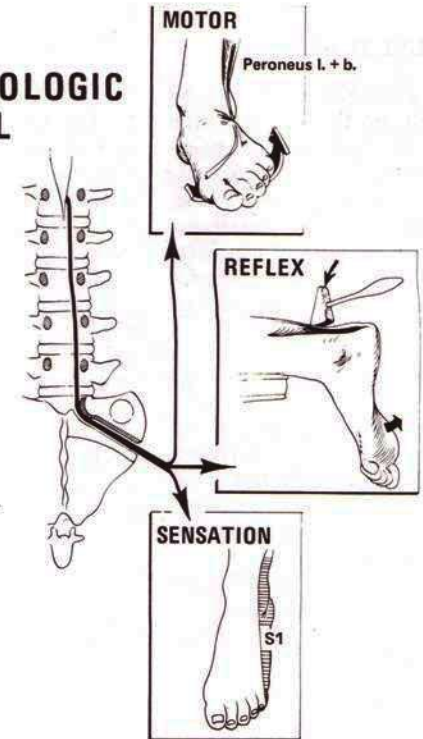
## L4 NEUROLOGIC LEVEL



## L5 NEUROLOGIC LEVEL



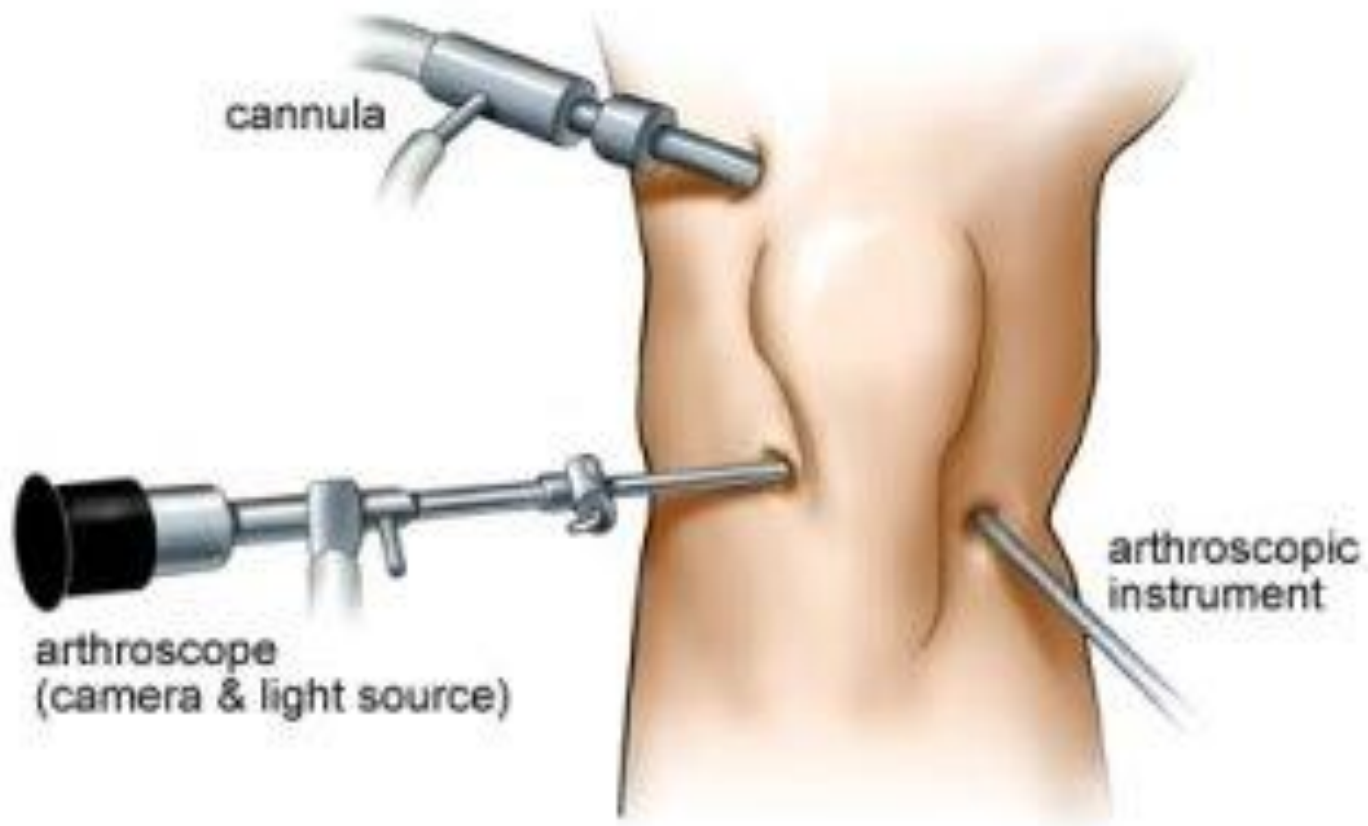
## S1 NEUROLOGIC LEVEL



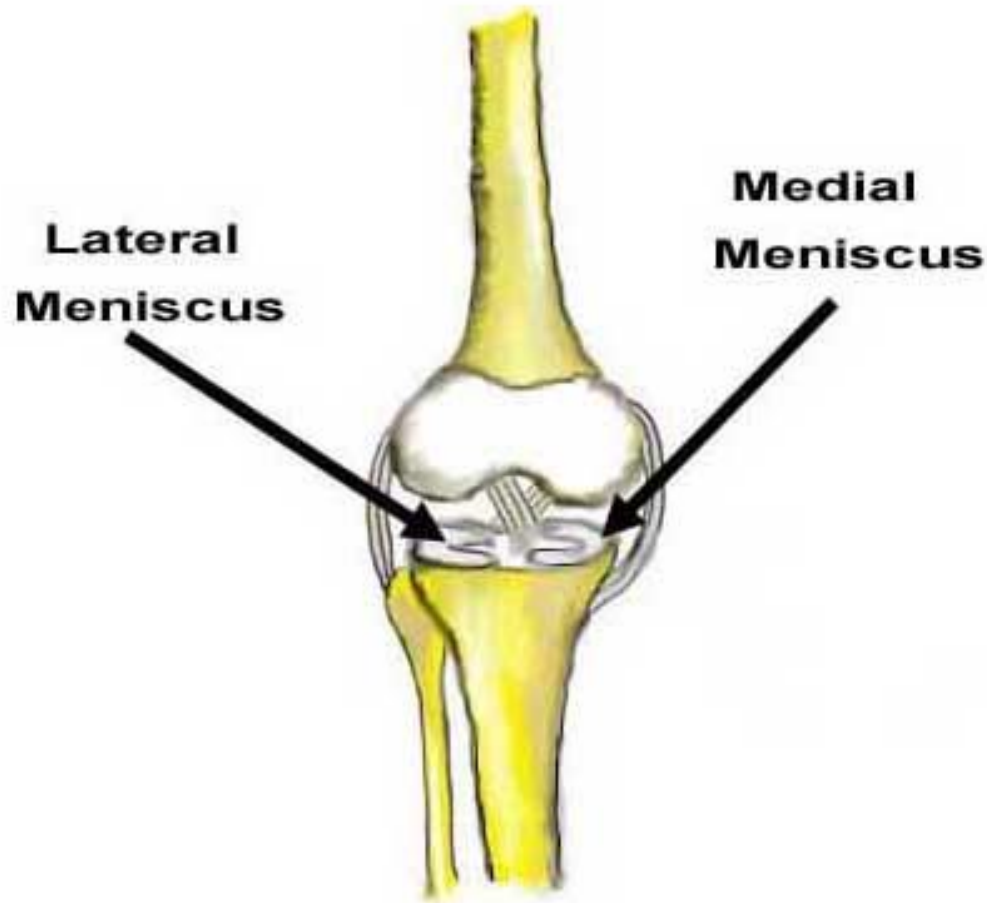
- 1) Lasting nerve deficits are very, very rare
- 2) Disc herniations can (and usually do) resolve *with time alone*



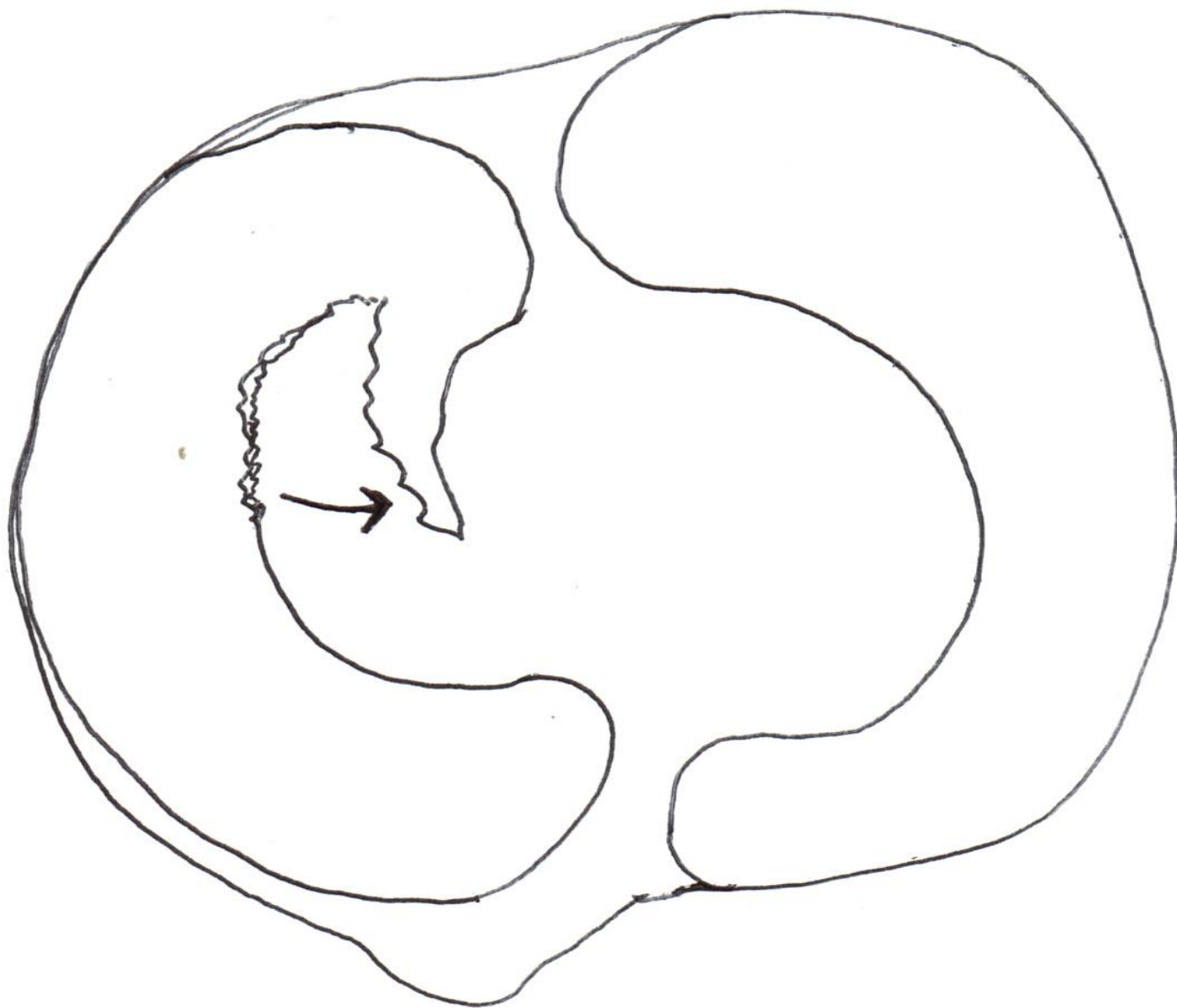
# Knee Arthroscopy



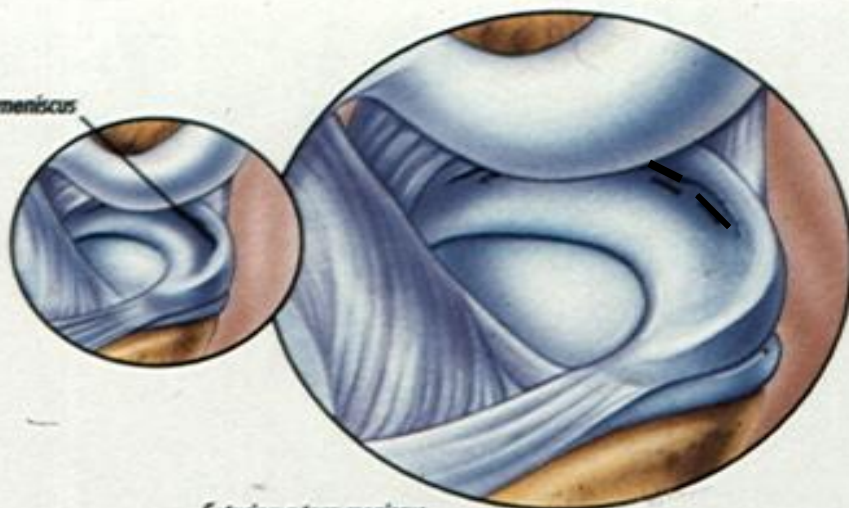
# MENISCUS TEARS







*Torn meniscus*

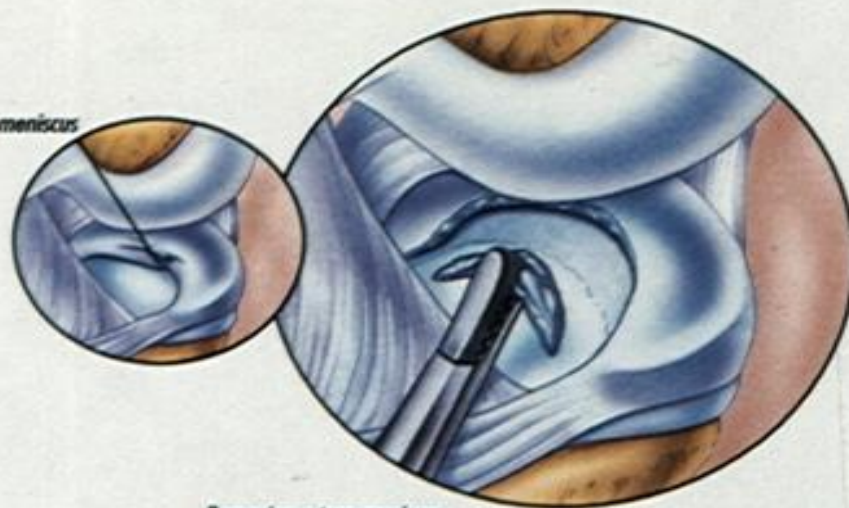


*Suturing a torn meniscus*

## **Repair**

Whenever possible, your surgeon will try to repair your meniscus to maximize the shock absorption in your joint. This type of surgery may be an option if the tear is within an area supplied by blood, which allows for healing. Your meniscus is sutured together, possibly requiring an additional incision at the back or side of your knee.

*Torn meniscus*



*Removing a torn meniscus*

## **Removal**

If repair can't be done, your doctor will remove as little of your meniscus as possible. Since the meniscus won't completely grow back, the articular cartilage will now take over the role as shock absorber for your knee joint.

# Arthroscopy for Meniscus Tears

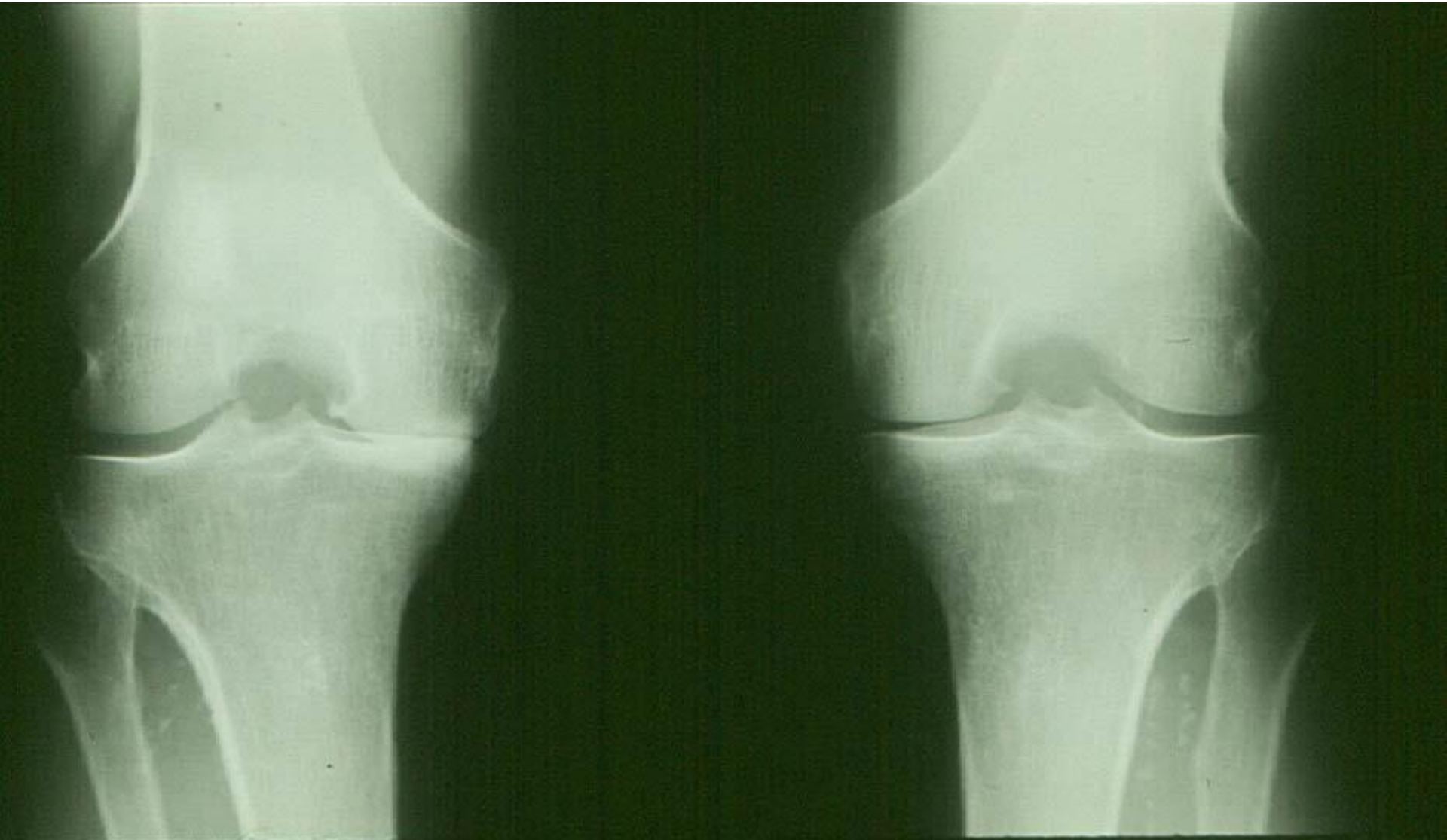
- 30 minute Operation
- 80 – 90% Patient Satisfaction
- 80 – 90 % Return to Sports

# “Knee arthroscopy doesn’t work.”

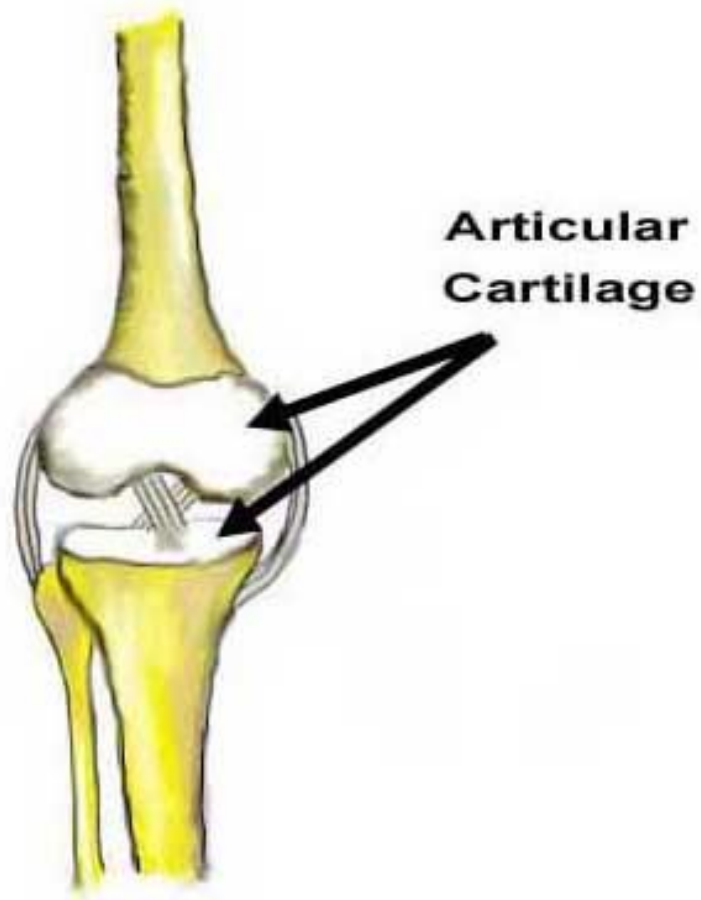
Moseley JB, O’Malley K, Petersen NJ, et al: A controlled trial of arthroscopic surgery for osteoarthritis of the knee. *N Engl J Med* 2002;347(2):81-88

Kirkley A, Birmingham TB, Litchfield RB, et al: A randomized trial of arthroscopic surgery for osteoarthritis of the knee. *N Engl J Med* 2008;359(11):1097-1107

# Weight bearing x-ray



# ARTHRITIS



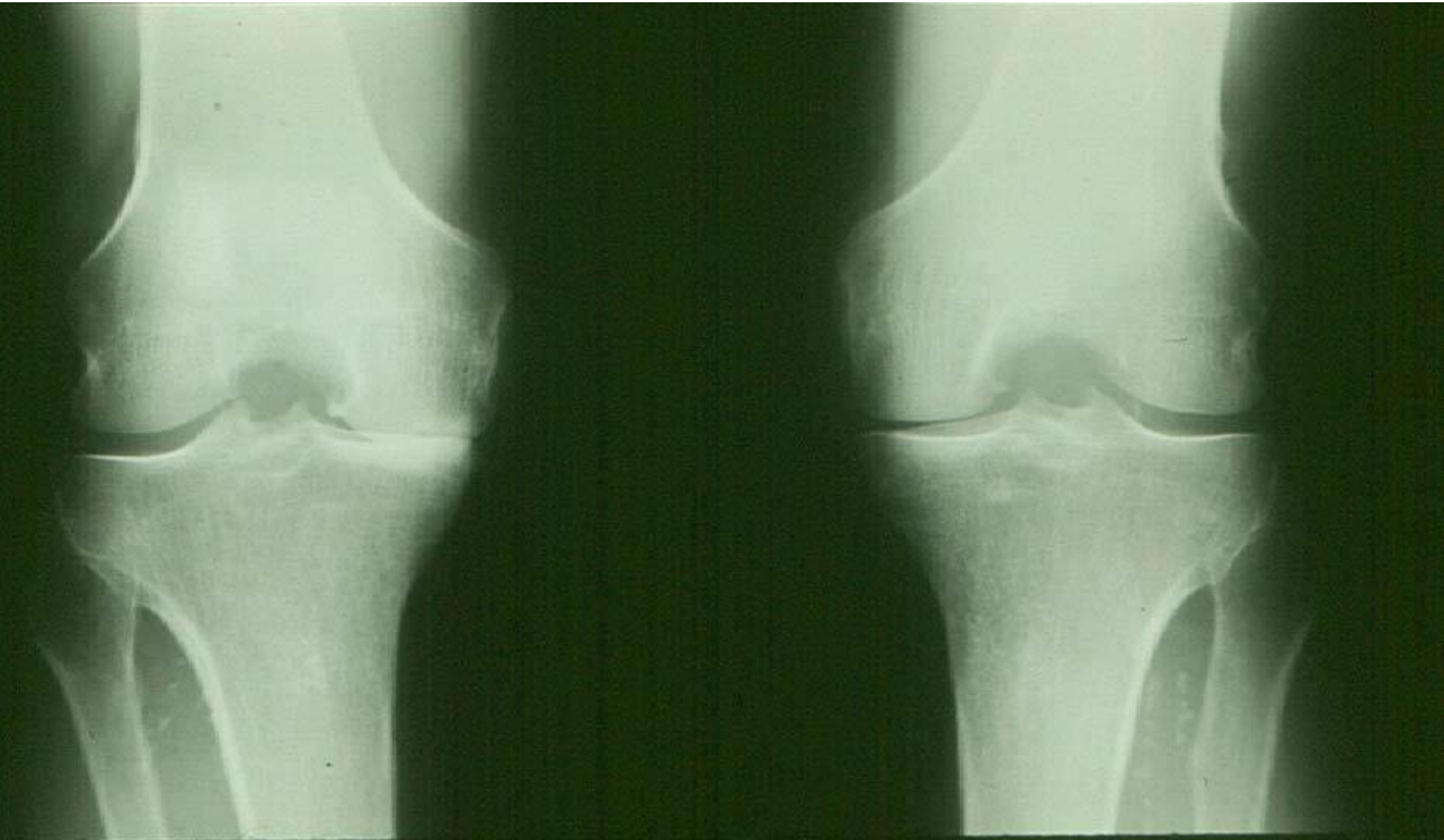




## Knee Osteoarthritis



# Weight bearing x-ray

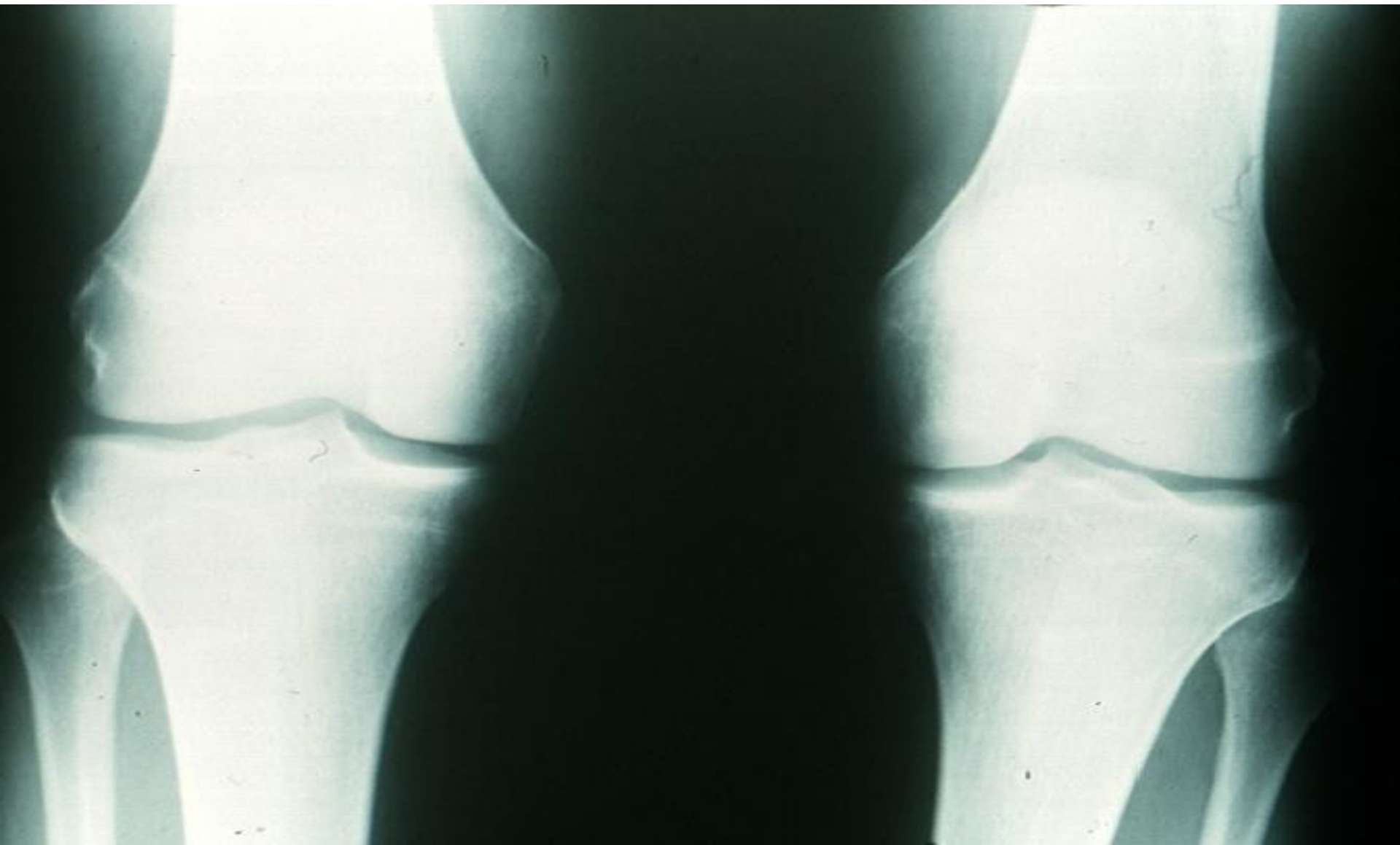


# Knee Replacement Surgery





# Weight bearing x-ray



# When to get knee xrays?

- Trauma
  - Sprains and strains ***do*** count



# When to get an MRI?

- Do we need one to evaluate instability?
- Do we need one to evaluate meniscus injuries?

# Knee Joint Injection Technique

1cc Steroid, 4cc Lidocaine

- Pt supine on table
- Knee extended
- Muscles relaxed
- Lateral approach
- Sub-patellar



*Jackson et al, J. Bone Joint Surg. AM., 84:15  
1527 (2002)*

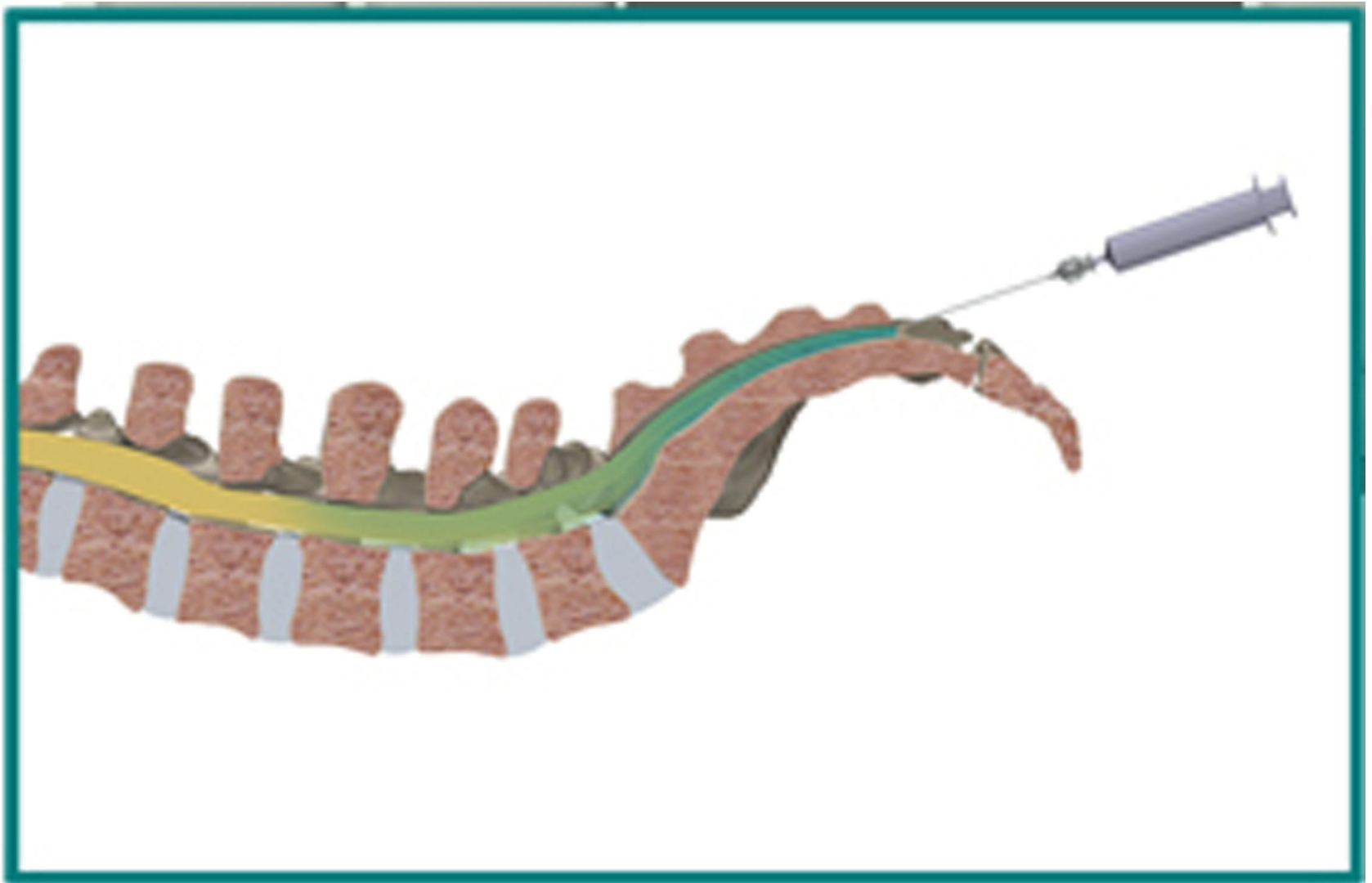
# Cortisone Shots?

- Lateral epicondylitis

# Cortisone Shots?

- Lumbar epidural steroid injections

# In Office Epidural Steroid Injection



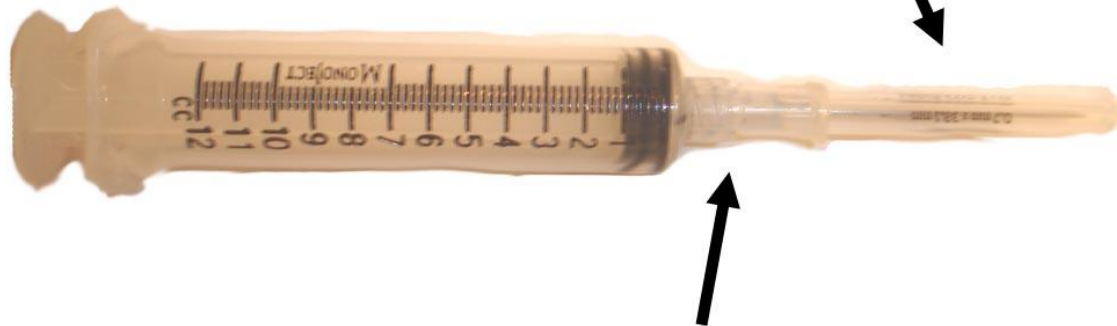
1cc (40mg) Steroid, 5cc **NaCl**



**Corticosteroid**  
(Kenalog, Aristacort)

# Syringe and Needle

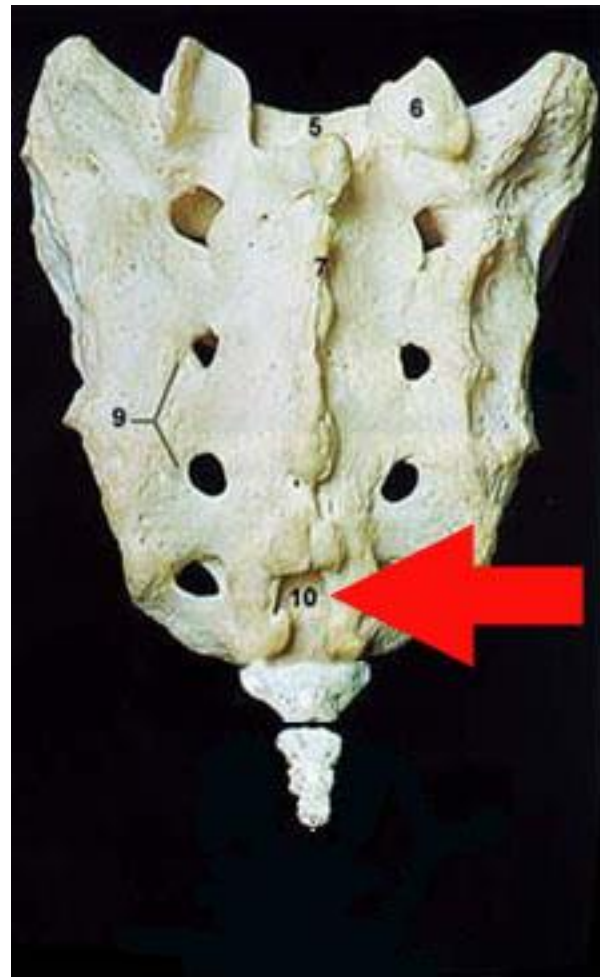
22 gauge 1<sup>1/2</sup>  
inch needle



Syringe with Luer-Lock  
(screw-on) tip



# In Office Epidural Steroid injection technique:



**The sacral hiatus**

Image Credit

Intergluteal  
cleft

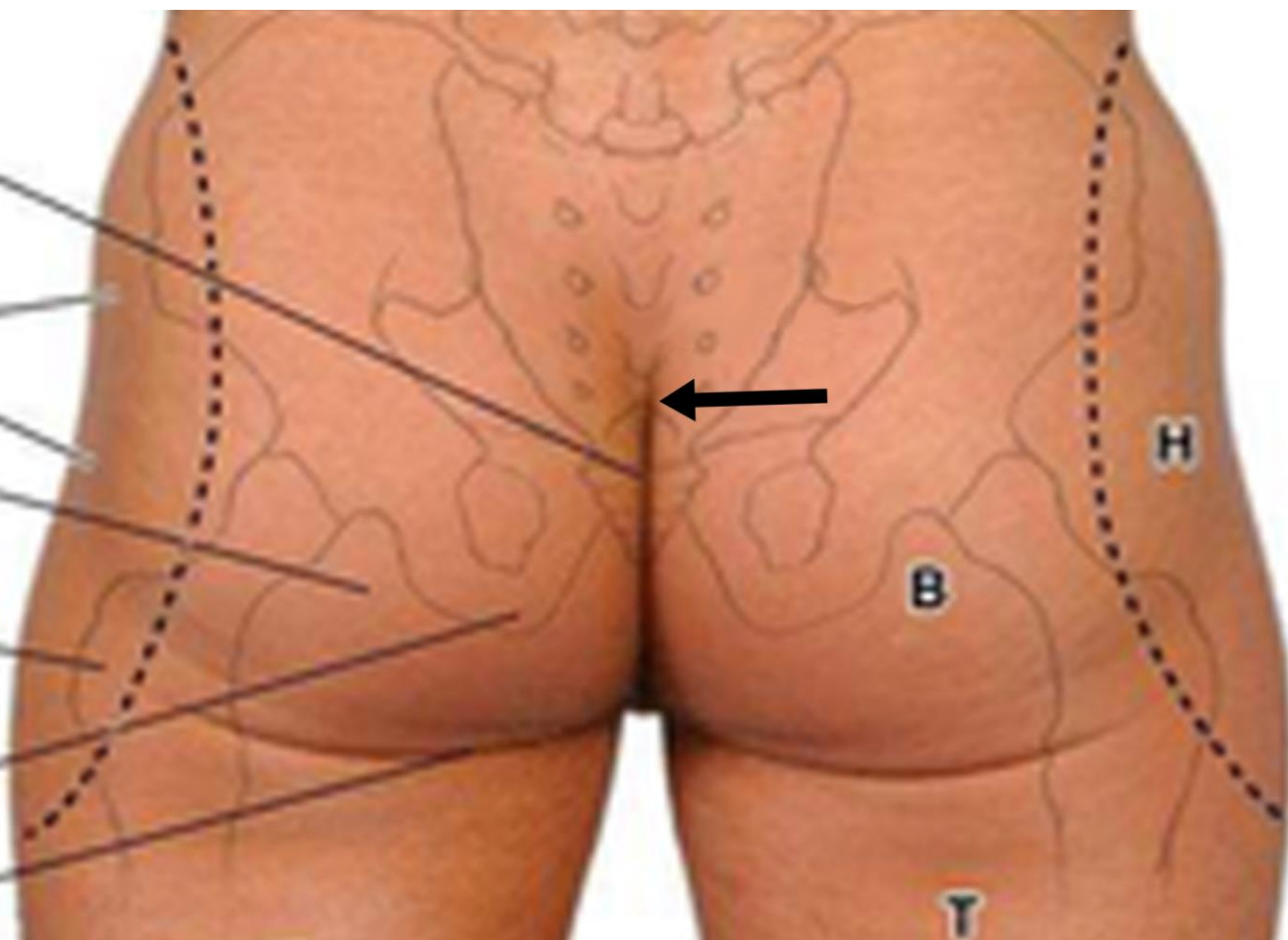
Hip (H)  
region

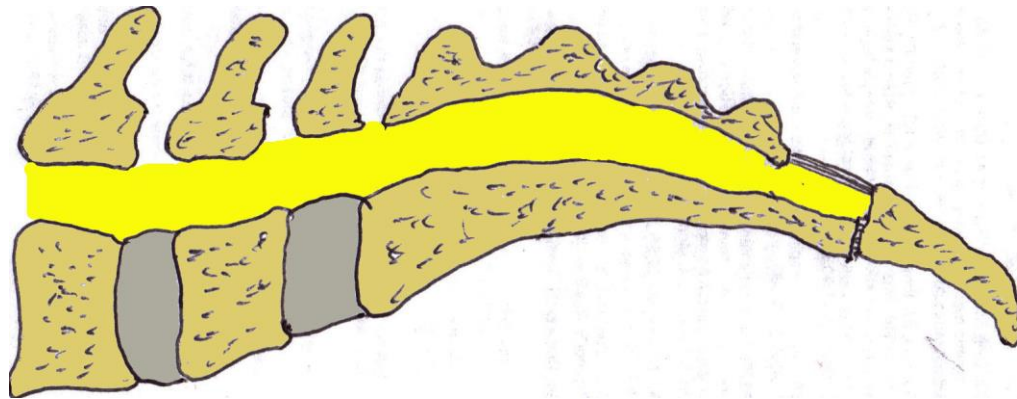
Buttock (B)

Greater  
trochanter

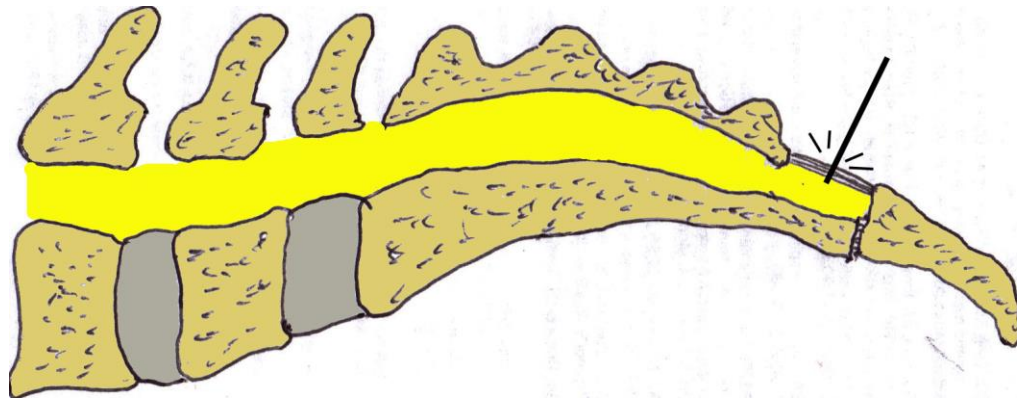
Ischial  
tuberosity

Gluteal fold

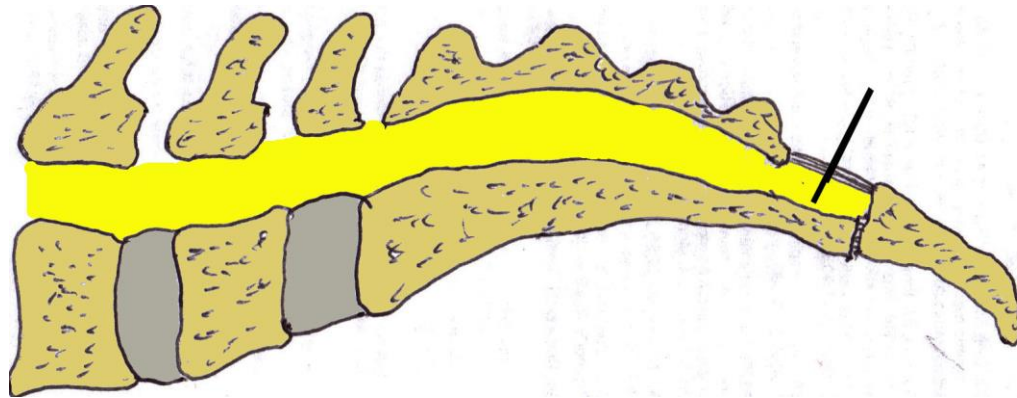




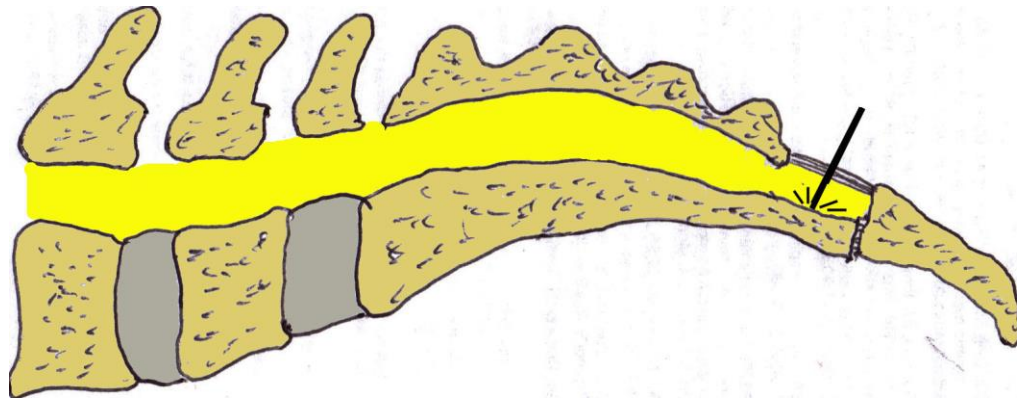
# “POP”



# “DROP”



# “STOP”



# Technique:

- Inject in the midline, just superior to the top of the intergluteal fold (aka: butt crack)
- Try several sites up and down, pressing ***firmly*** with your needle, until you:
  - “POP” through the membrane
  - “DROP” through the intraspinal space
  - “STOP” against the back wall



# Caudal epidural steroid injections

- Safe
- Easy
- Effective

**Ackerman WE**, The efficacy of lumbar epidural steroid injections in patients with lumbar disc herniations. *Anesth & Anal* 2007;104:1217-1222

**Salahadin A**, Epidural steroids in the management of chronic spinal pain: A systematic review. *Pain Physician* 2007; 10:185-212

# Caudal Epidural Steroid Injections

***“35% of patients with radicular back pain had 50% or greater reduction of symptoms at 3 months”***

Barre, L. et al. Pain Physician. 2004 Apr; 7(2): 187-93

Dashfield A K, Taylor M B, Cleaver J S. et al. *Br J Anaesth.* 2005;94(4):514–519.