

# Differentiating Hip & Back Problems

Dr Steve Longworth

MSK 2010

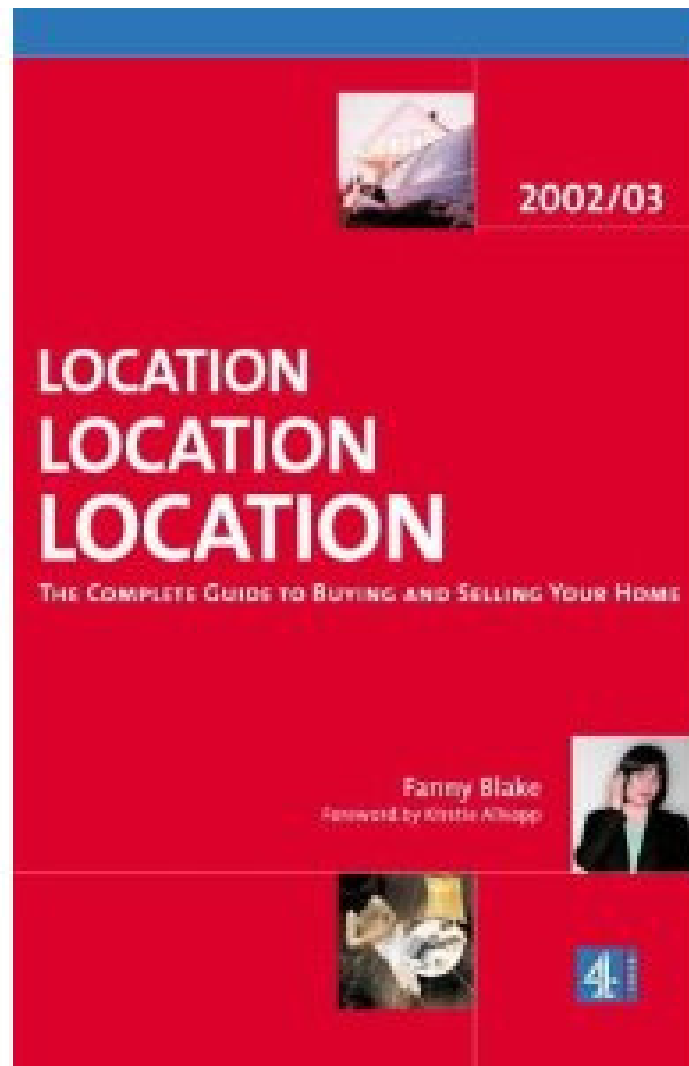
Rheumatology CPD Study Day

Kettering 23<sup>rd</sup> June 2010

# The Hip & Back

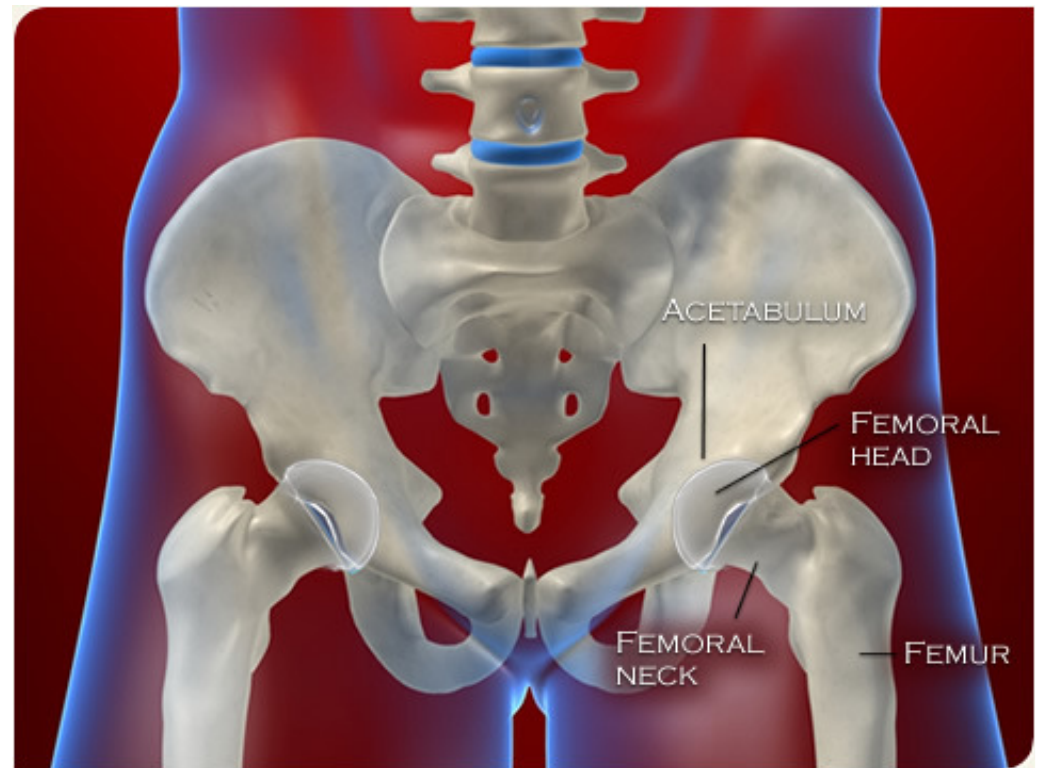
- Where are they?
- History
- Examination
- Causes of Hip & Back Pain
- Red Flags

# Where Are They?



# Where's The Hip?

- “SHOW ME where you have your pain”
- Rub
- Point
- Clutch

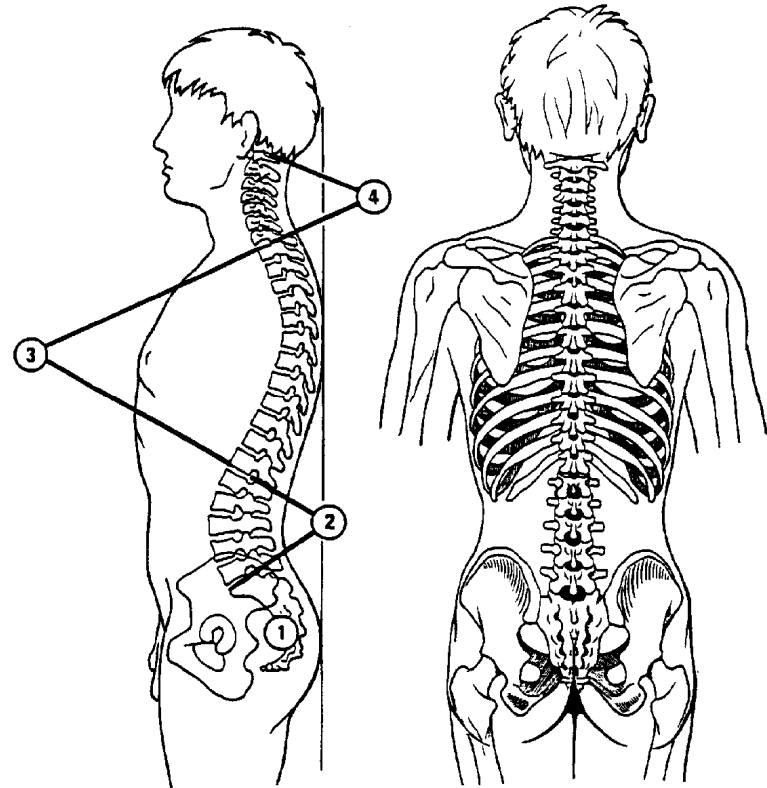


# Where's The Back?

- I asked 215 GPs
- **When considering Mechanical Back Pain 'the back' is the area on the dorsal surface of the body**
- From the occiput to the sacrum 44%
- Not specifically defined 42%
- The lumbar region bilaterally/centrally 16%
- **From the 12th ribs to the gluteal folds 6%**

# The (Low) Back

- The (low) back is the area on the dorsal surface of the body between the 12th ribs and the gluteal folds
- “From the bottom of the ribs to the bottom of the bottom”





**HISTORY**

HISTORY

# General Points To Remember (1)

- *SYSTEMIC/SERIOUS PATHOLOGY*
- Ask about other joints including upper limbs
- Are they systemically well?
- Fever WARMS
- Vital signs (Temperature/Pulse/Weight)
- Spinal referred/root pain may cause diffuse lower limb symptoms with no/minor back pain
- Patients are allowed more than one problem



# General Points To Remember (2)

- Always watch the patient walk
- Can they weight bear?
- If you think it's the *back*, screen the hip
- If you thinks it's the *hip*, screen the back and the knee
- Pain in the hip = examine the knee and vice versa (L3)
- Proximal pain less well localised than distal pain

# History

- Age
- Occupation (“What do you actually do?”)
- Sports Hobbies Pastimes Activities
- PMH (Arthritis, Orthopaedic operations)
- Drugs (Current, Past, OTC, Complement)
- Treatment so far (Physio, Acupuncture etc.)
- FH
- SH Smoking (PVD) Alcohol (Neuropathy)

# Onset

- Trauma
- Spontaneous –  
Sudden or Insidious?
- Have they had it  
before?
- Predisposing factors  
– e.g. osteoporosis



# The Hip



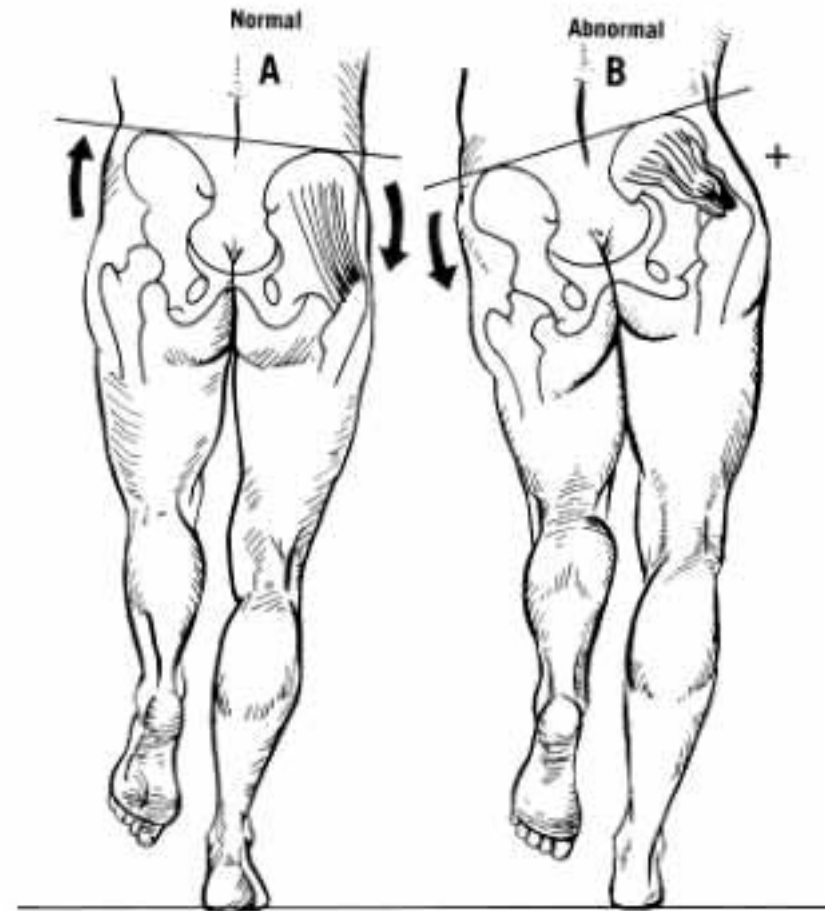
# “Where’s the pain?”

- Where is the hip?
- Where is the leg?
- “Where’s the pain?”  
Rub/Point/Clutch?
- Where did it start?
- Where has it been?
- Where is it now?
- The groin – a  
minefield!



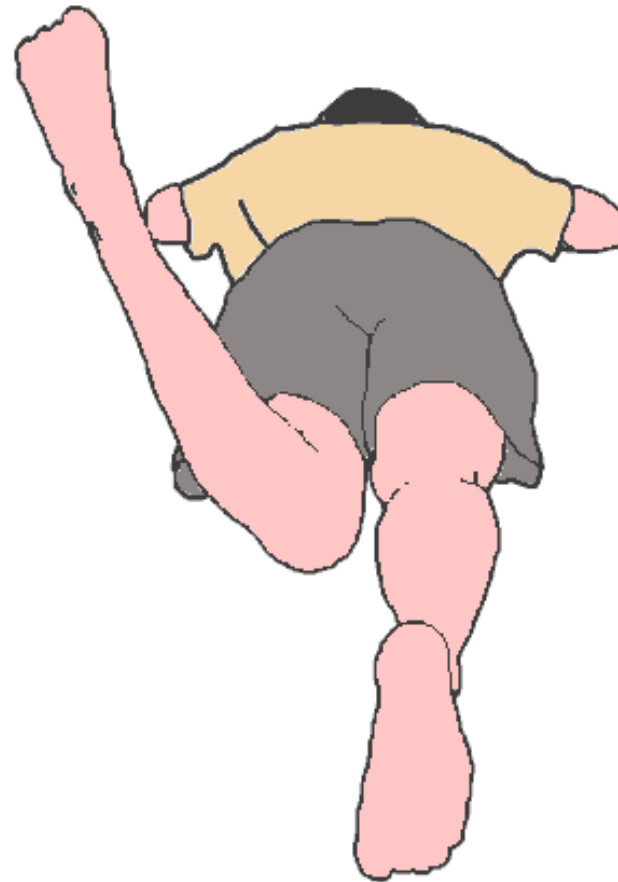
# Examination of the Hip (1)

- STANDING
- Undressed
- Stick? Which hand?
- Posture + Wasting
- Alignment
- Gait
- Trendelenburg Test
- Lumbar spine



# Examination of the Hip (2)

- *SUPINE*
- Limb length + SLR
- Flexion (Thomas' Test)
- Rotations (pain, range, end feel)
- Trochanter tenderness
- *PRONE*
- Bilateral simultaneous medial rotation
- Palpate lumbar spine



# Causes of Hip Pain in Children

- Under 1 – DDH (CDH)
- 1-5 – Irritable hip
- 5-10 – Perthe's
- 10-15 – Slipped upper femoral epiphysis
- Any age – Sepsis





# Causes of Hip Pain in Adults

- **Osteoarthritis**
- *Other arthritides:*
  - Rheumatoid arthritis
  - Psoriatic arthritis
  - Ankylosing spondylitis
- *Hip fracture*
- *Paget's disease*
- *Avascular necrosis*
- *Malignancy*
- *Infection*
- *Painful soft tissue conditions around the hip:*
  - Trochanteric bursitis
  - Snapping ilio-psoas tendon
  - Torn acetabular labrum



# OA Right Hip



# Hip Fractures



# Paget's (acetabular protrusio)



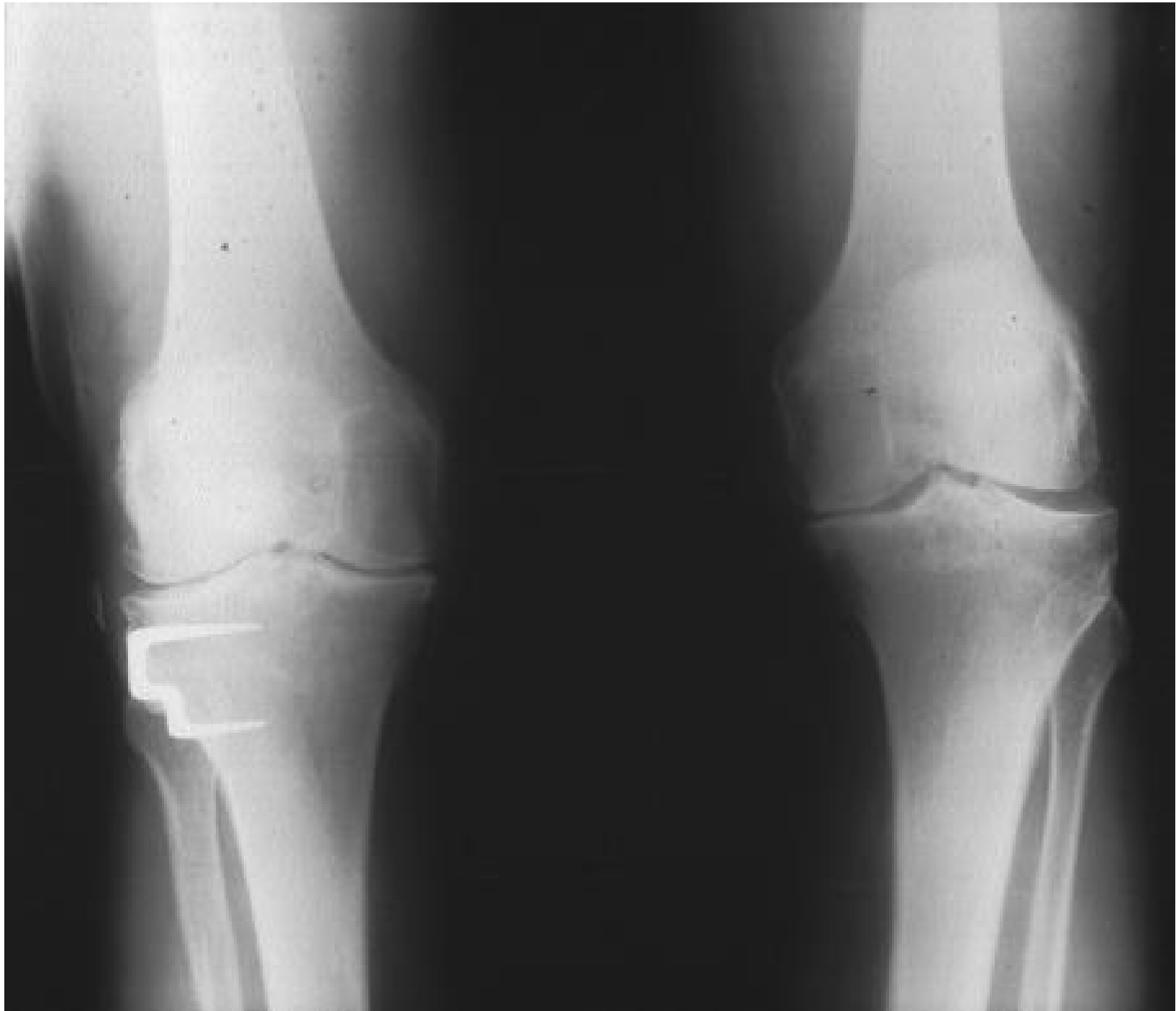
# Avascular Necrosis

- **Most cases are idiopathic**
- Associated conditions include:
  - Excess alcohol
  - Prolonged steroid therapy
  - Pregnancy
  - Hyperviscosity syndromes
  - Working in pressurised environments—for example, deep sea divers



# Pelvic Mets from Ca Prostate





# Classic Catches

- Paget's, metastases, myeloma
- Fractured pelvic ramus
- Impacted sub-capital fracture of femur
- Referred back pain/spinal stenosis
- Stress fractures





# The Back

## ABC of Spinal Disorders

Edited by Andrew Clarke, Alwyn Jones,  
Michael O'Malley and Robert McLaren



WILEY-BLACKWELL [www.abcsbookseries.com](http://www.abcsbookseries.com) BMJ Books

# Back Pain Diagnostic Triage

- Simple
- Sciatica
- Serious



# Simple Mechanical Back Pain

- It isn't simple!
- Or mechanical!
- >90% in Primary Care
- 'Mechanical' Signature
- Exclude Sciatica and Serious
- 'Good' Prognosis



# Sciatica

- >90% due to lumbar disc herniation
- Spinal stenosis, rarely tumours
- 90% of sciatica L4/5 and L5/S1 discs
- Limb pain dominant



# Clinical Questions

- **Sciatica is caused by compression of:**
- The sciatic nerve 31%
- **A lumbar nerve root 37%**
- The spinal cord 0%
- Any of the above 31%
- None of the above 1.5%

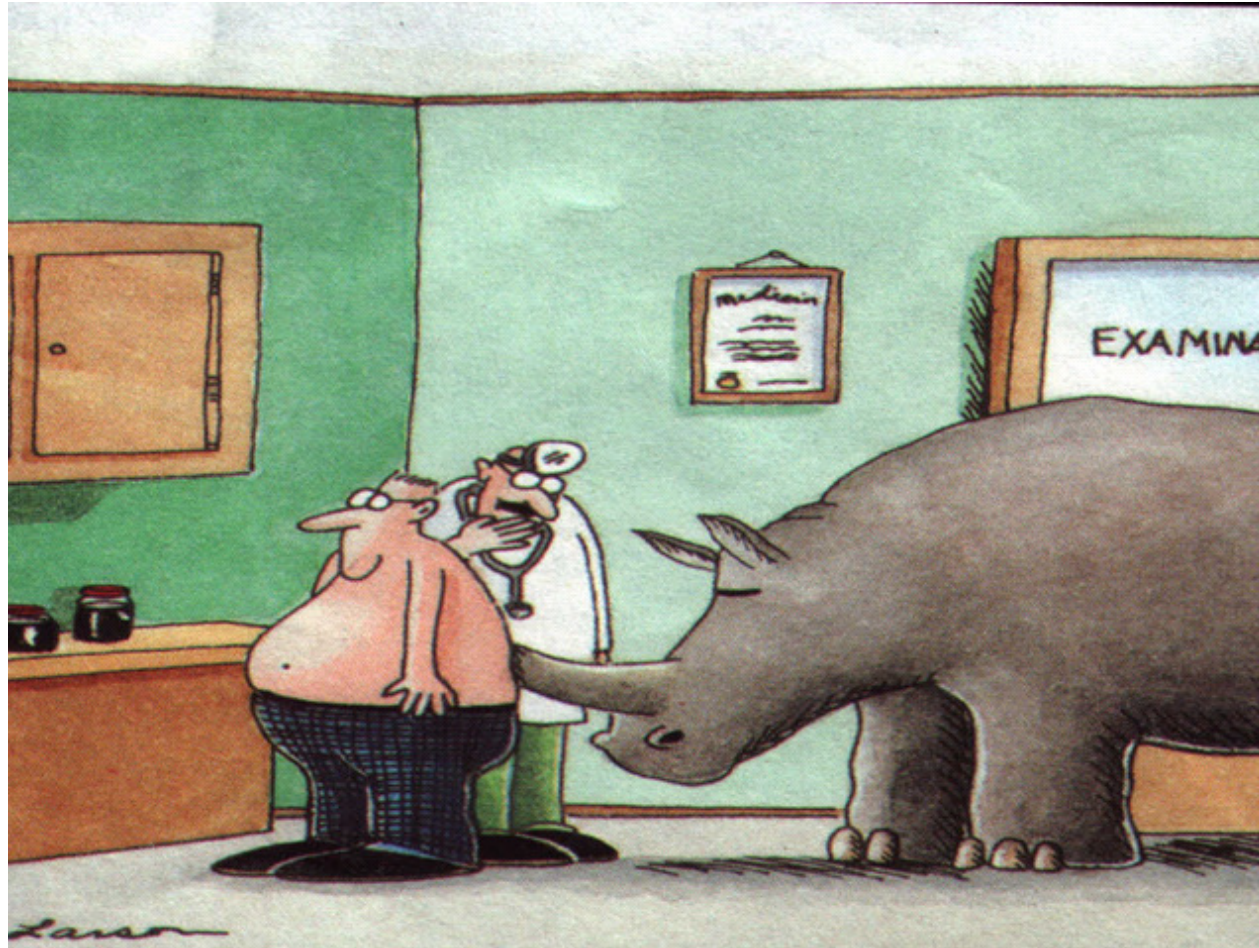
# Serious

- Age
- History of the pain
- PMH
- Systemically unwell  
(Fever WARMS)
- Examination





“Wait a minute...maybe this isn't simple mechanical back pain!”



# Examination - General

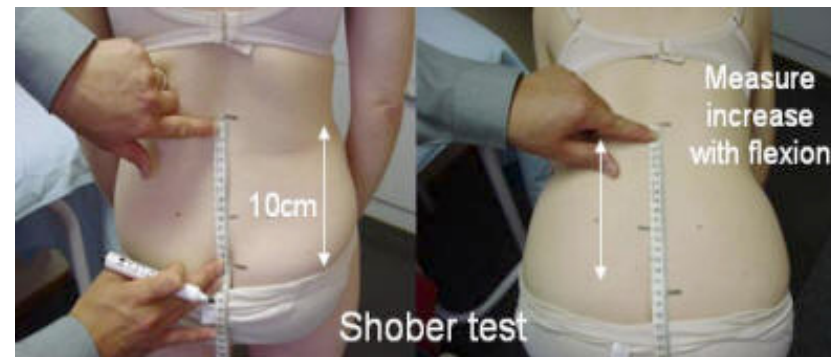
- Remember the therapeutic effect of examination!
- Systemically well? (weight/temp/pulse)
- Gait
- Indicate location of the pain
- Look for deformity & scars





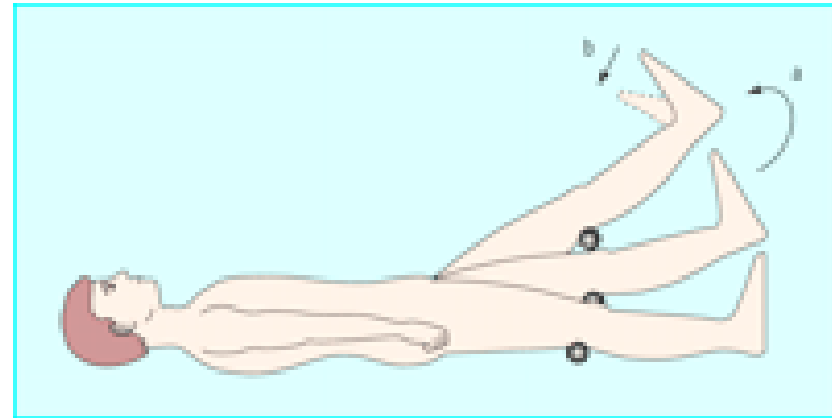
# Examination - Standing

- Spinal flexion (modified Shrober's)
- Heel/Toe walking
- Palpate for spasm (tenderness unhelpful)
- If no leg pain or Red Flags – stop here!
- Pain behaviour?



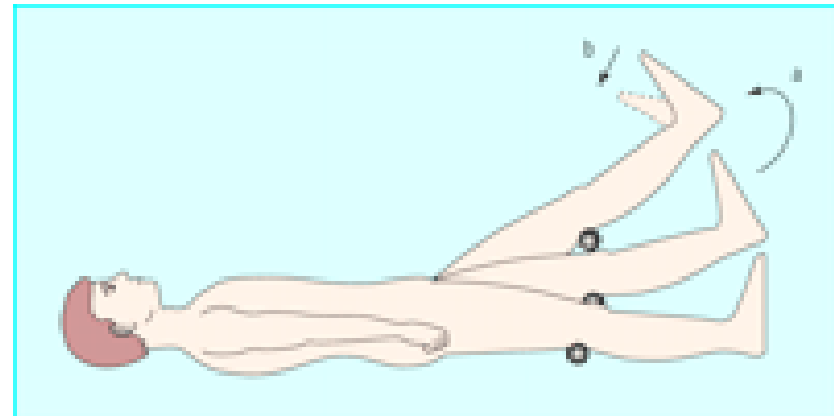
# Examination - Supine

- Lie down
- Rotate the hips
- SLRs
- Brief focused neurology
- Red flags - expand the examination e.g. lungs, breasts, abdomen, PR, urine

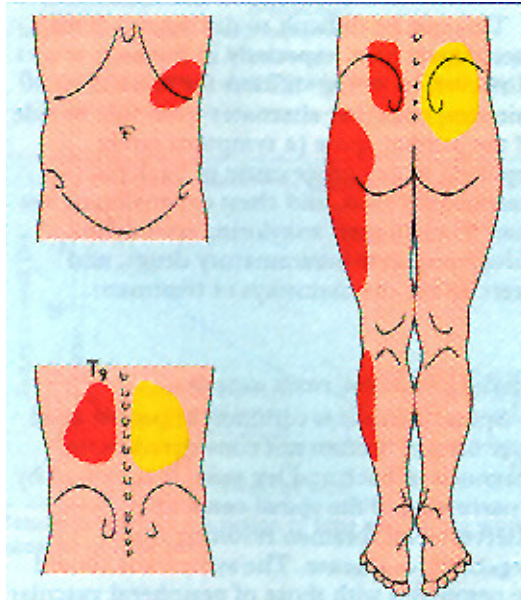


# Nerve Root Pain

- Unilateral leg pain greater than low back pain
- Pain radiating to foot or toes
- Numbness and paraesthesia in the same distribution
- Straight leg raising test induces more leg pain
- Localised neurology limited to one nerve root



**Radiation of pain after injection of 0.1-0.3 ml 6% hypertronic saline into sacrospinal muscle (yellow) and multifidus muscle (red). Note similarity to distribution of sciatic pain**

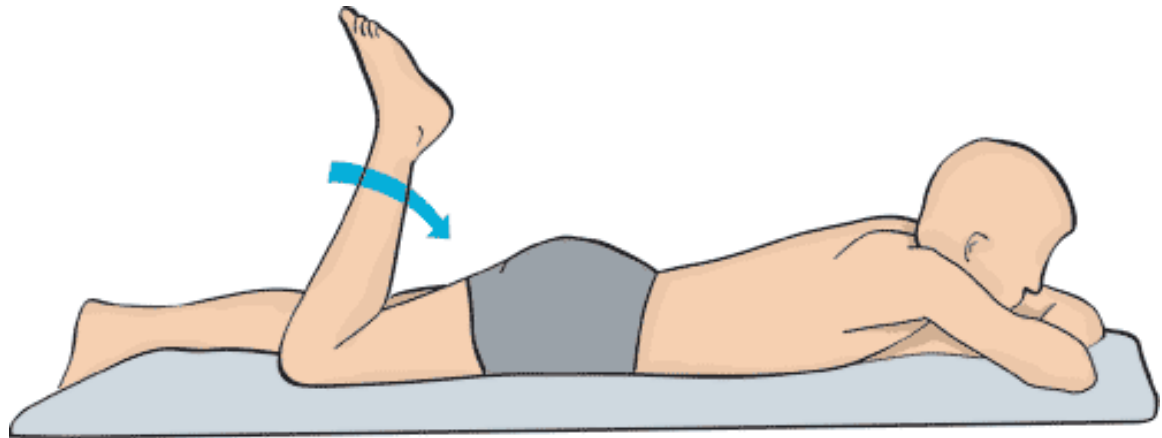


# Referred or Root Pain?

- *Referred*
- Back pain > Limb pain
- Poorly localised non-dermatomal ache above the knee
- *Root*
- Limb Pain > Back Pain
- Dermatomal pain +/- sensory symptoms below the knee

# L3 Nerve Root Lesion

- Uncommon
- Anterior thigh pain
- Hip clear
- Weak knee extension
- Reduced/absent knee reflex
- Femoral stretch test



# Spinal Stenosis



# Any Questions?

