The Back

History and Examination

Interesting Facts

- Backache second only to common cold as a cause of days of sick
- 80-90% adults will have backache at some point in their lives.
- Most prevalent age 30-50 years
- In 1994, 14 million GP consultations, 7 million physio sessions and 800,000 in-patient bed days.

Aims of assessment:

- To distinguish between benign mechanical back pain and sinister causes of back pain.

- 95% will be due to mechanical back pain, <5% nerve root irritation from disc prolapse <1 more sinister pathology

Benign Mechanical Back pain

- Usually worse in the morning then improves with activity, varies with posture/activity
- Usually lower lumbar pain, also buttocks and thighs
- Dull poorly localised pain
- Cause cannot be attributed to any specific pathology.

Nerve root pain

- Due to nerve root irritation eg from a prolapsed disc
- Shooting pain and paraesthesia down back of thigh sometimes as far as the heel.
- May also affect anterolateral thigh if femoral nerve roots are affected.

Red Flags

Red Flags

- Age < 20 or >55
- Recent violent trauma
- Constant, progressive with no relief from postural modification
- Severe morning stiffness
- Unable to walk or self care
- Thoracic pain
- No change with 2-4 weeks treatment

Red Flags cont..

- PMH Malignancy
- Corticosteroids
- Drug abuse HIV, Immune suppressed
- Systemically unwell
- Unintentional weight loss
- Fever
- Widespread neurological symptoms (cauda equina syndrome S234)
- Structural deformity.

Cauda Equina Syndrome

- Bladder dysfunction, usually retention.
- Sphincter disturbance
- Saddle anaesthesia
- Lower limb weakness
- Gait disturbance

- Urgent referral is mandatory

Yellow Flags

- What does the yellow flag mean?

Yellow Flags

These are factors which predispose to chronic pain and long term disability.

These are:

- Belief that pain and activity are harmful
- ‘sickness behaviours’ eg extended rest
- Low/negative mood
- Past history of back pain with time off
- Poor job satisfaction or other problems with job.
- Over protective family or lack of support
- Heavy work, unsociable hours
- Problems with claim and compensation

Inspection

- Ideally with back and legs exposed.
- Posture ?Scoliosis ? Kyphosis
- Skin café-au-lait spots, hairy patches, signs of psoriasis.
- Prolapsed disc may cause a lumbar scoliosis, flattening or reversal of normal lumbar lordosis

Palpation

- Check for bone tenderness – this may indicate serious pathology eg infection, fracture, malignancy
- With patient leaning forwards check for tenderness between the vertebral spines and paraspinal muscles. Eg prolapsed disc, mechanical back pain
- SI joints
- Palpable steps may indicate spondylolisthesis

Percussion

- Ask patient to bend forward
- Lightly percuss spine from neck to sacrum
- Significant pain is a feature of infections fractures and neoplasms
- Beware exaggerated response – may be a non organic problem

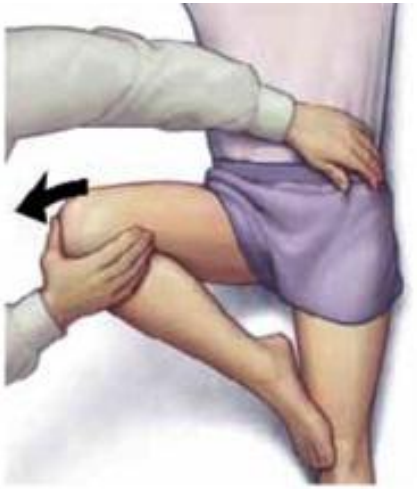
Movements

- Flexion – schobers test <5cm = abnormal
- Extension – pain and restricted extension in prolapsed disc and spondylolisthesis
- Lateral Flexion
- Rotation – seated, movement is thoracic

Hip and SI joint examination

- Check hip joints for pain and limitation – internal rotation is often the earliest sign hip disease.
- FABER test. Place foot across knee of opposite leg, apply gentle pressure to knee and opposite ASIS. Pain in SI area may indicate a problems with these joints.

Faber test



Abdominal and Cardiovascular examination

- Consider non musculoskeletal causes of back pain

Straight leg raising

- Looking for nerve root irritation L5 S1-5
- Patient supine, passively raise leg with knee extended, stop when back or leg pain. <45o positive
- Lower leg until the pain disappears then dorsiflex foot, pain or paraesthesia aggravated.

Functional overlay

- Ask patient to sit up on the couch
- If genuine will have to flex knees or it causes too much pain.

- Axial loading: apply pressure to the head. Overlay suggested if this aggravates back pain.

Femoral stretch test

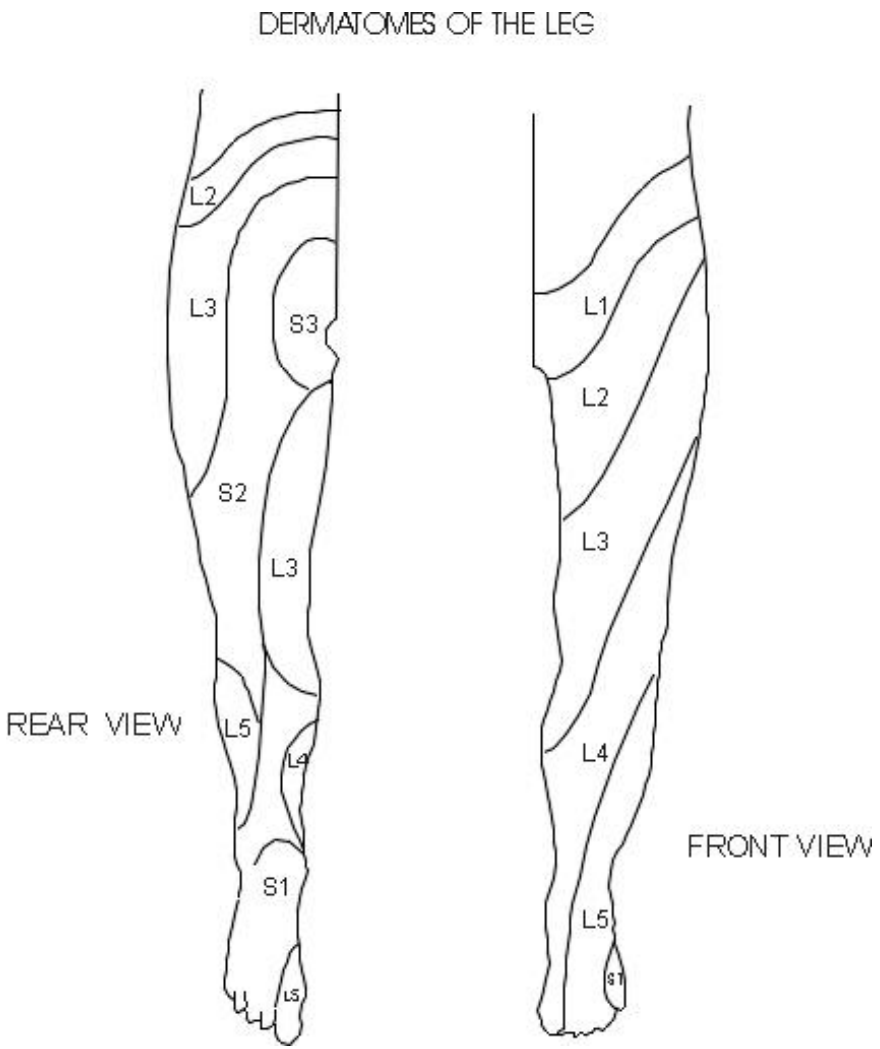
- Looking for femoral nerve root irritation L2-4
- Patient prone, ant thigh fixed to couch, flex each knee
- Pain felt in anterior compartment of the thigh
- Aggravated further by extension of hip

Femoral stretch test

Look for further evidence of neurological involvement

- Patella (L34) Achilles (L5 S1) reflexes
- Lower Limb power
- Test sensation to pin prick

Dermatomes - leg (diagram)



Further information:

- www.patient.co.uk
- www.arc.org.uk
- www.gpnotebook.co.uk