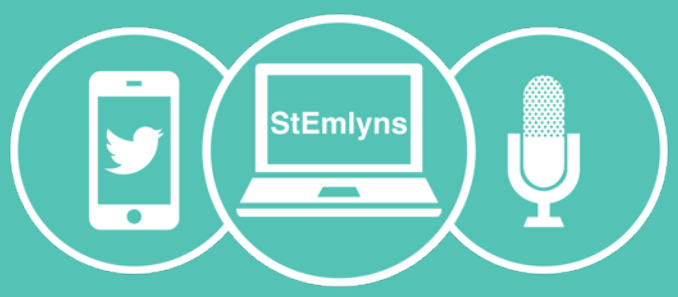
SPINE EXAM

a visual learning guide

Nick Smith



SPINE EXAM

LOOK → FEEL → MOVE → SPECIAL TESTS → OTHER

Gait

Antalgic gaits - limp

Neuropathic gaits - also known as a high stepping gait, caused by weakness of the muscles to the lower limb due to damage of the innovating nerves

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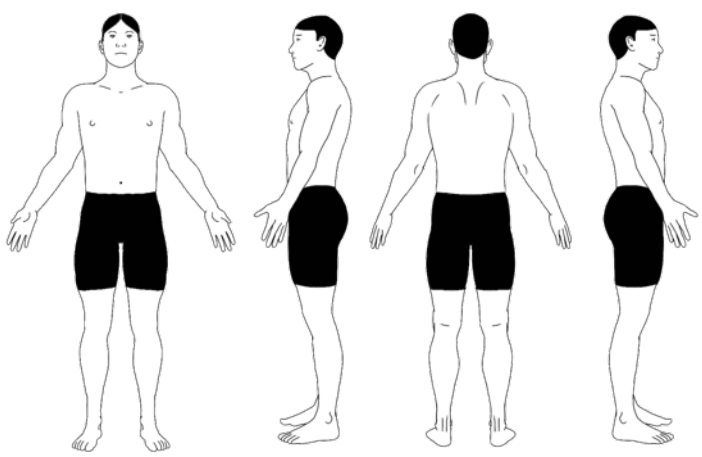
360 inspection



Exposure: Ideally in underwear

Overall alignment and willingness to weight bear

Deformity - normal kyphosis/lordosis? question mark posture (?ank spond), scoliosis

Scars - spinal surgery

Wasting - para spinal and gluteal muscles

Swelling

Colour - erythema, bruising

Positioning

The patient should be stood (where possible) for this type of examination

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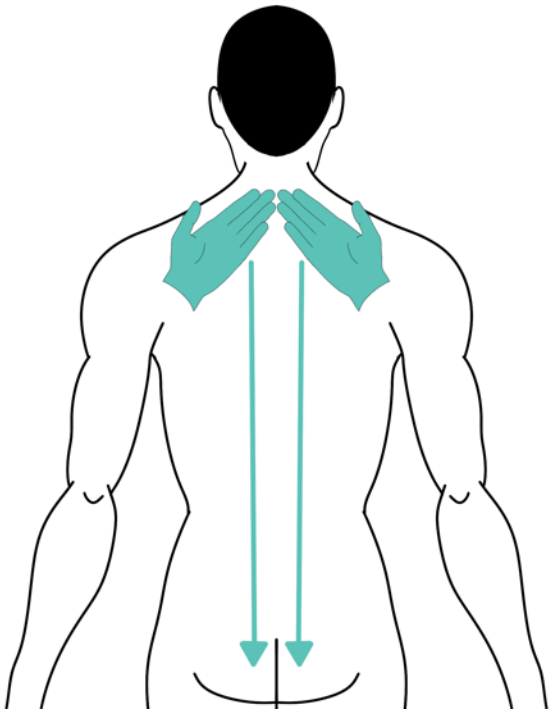
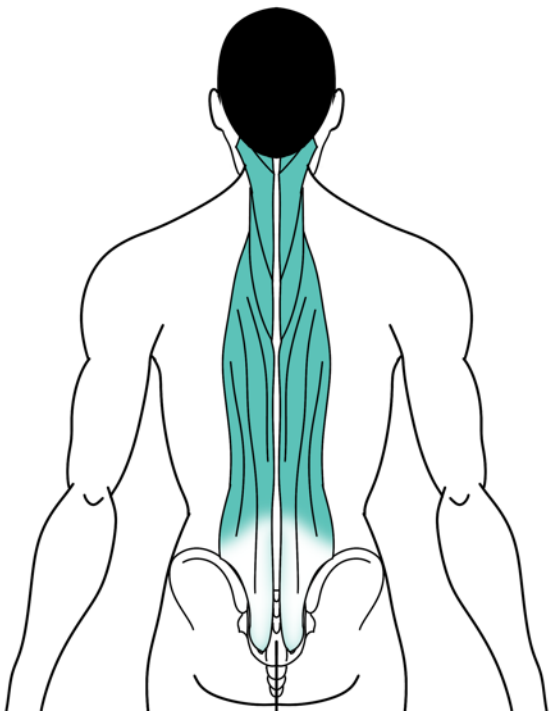
Temperature



Back of hands - feeling for warmth which may indicate an inflammatory process

Palpation



Soft tissue - trapezius, interscapular & paraspinal muscles

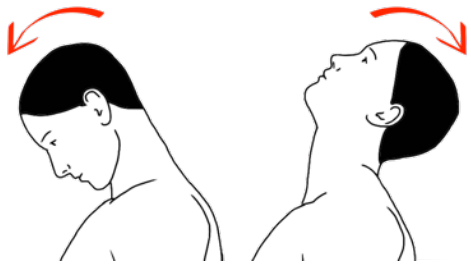
Spinus processes - from c-spine to sacrum looking for prominence (steps) or tenderness (?bulging disc)

Sacroiliac joints - tenderness (?damage to SI ligaments)

SPINE EXAM

LOOK → FEEL → **MOVE** → SPECIAL TESTS → OTHER

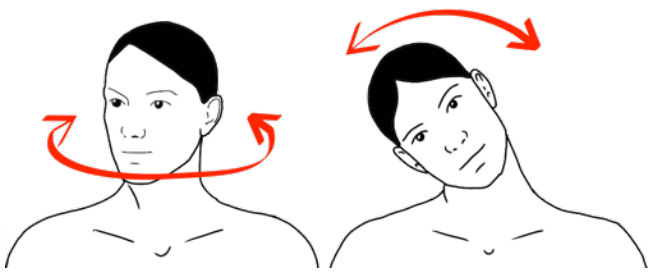
C-spine



FLEXION/EXTENSION

Flexion - "Can you put your chin on your chest please?"

Extension - "Can you put your head back as far back as possible?"



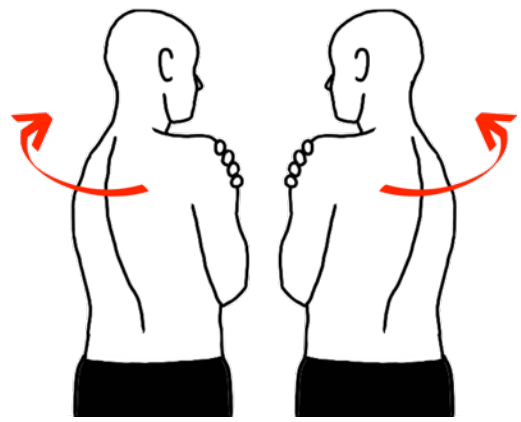
ROTATION **LATERAL FLEXION**

Rotation - "Can you look over your right/left over shoulder?"
Ensure the shoulders don't rotate

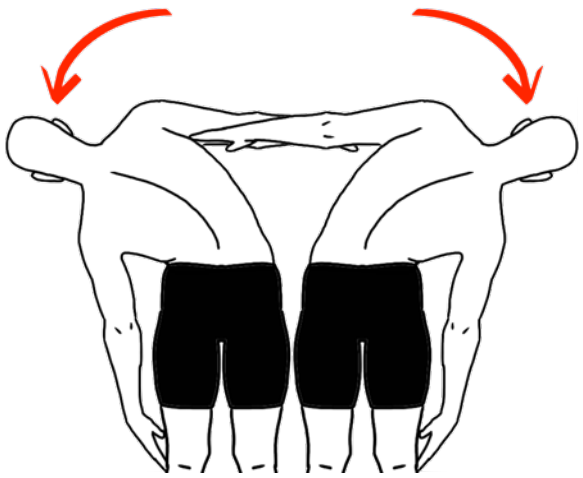
Lateral flexion - "Can you put your left ear on your left shoulder?"
Ensure shoulder doesn't come up to ear

Thoracic spine

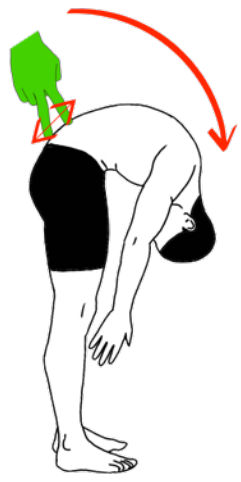
ROTATION - Fix the pelvis (patient sitting or hold the pelvis)
"Can you twist your body to the right/left?"



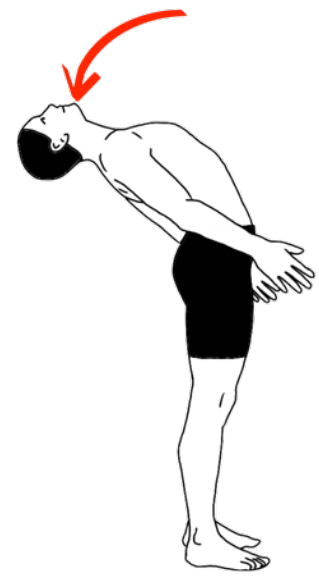
Lumbar spine



LATERAL FLEXION
"Can you slide your left hand down your left leg please?"
Repeat for right side



FLEXION
Place 2 fingers on the lumbar vertebra
"Keeping your legs straight can you try to touch your toes please?"
Fingers should move apart as they flex



EXTENSION
"Can you lean back as far as possible please"
Position yourself to be able to catch them if they become unsteady
Does the movement come from the spine or the hips?

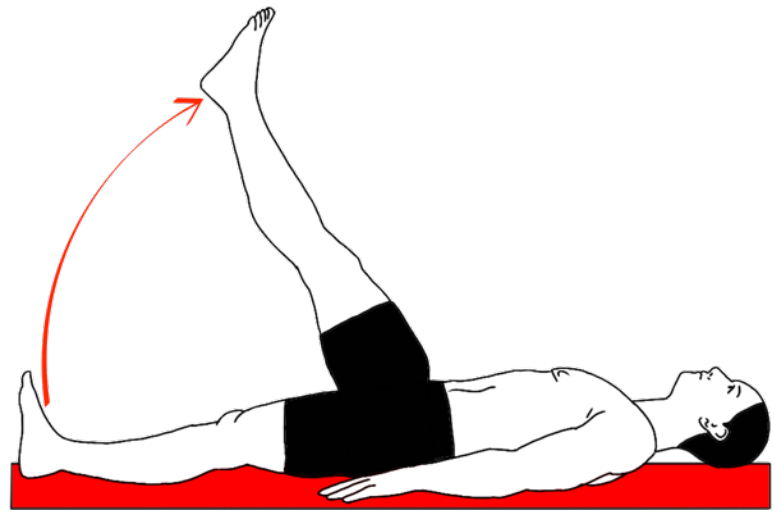
SPINE EXAM

LOOK → FEEL → MOVE → **SPECIAL TESTS** → OTHER

Nerve root compression

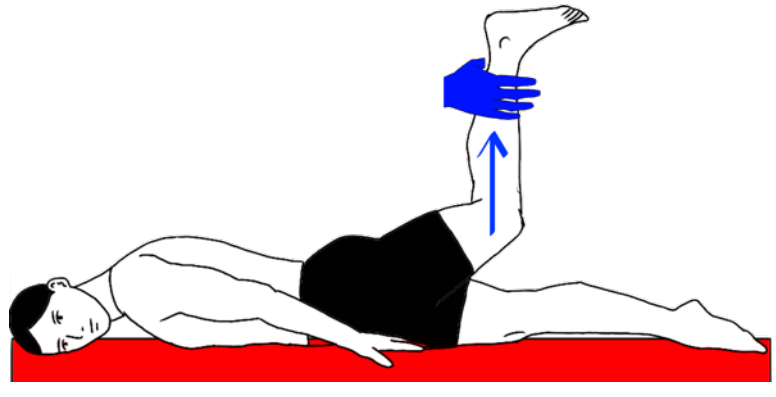
STRAIGHT LEG RAISE

L4, L5, S1
Patient supine on couch
Ask them to keep their leg straight and passively raise their leg
Recreation of their pain in lower back, buttocks & leg between 30-70 degrees (texts vary on the exact angle) of hip flexion suggests disc herniation
Test can be limited by tight hamstrings



FEMORAL STRETCH TEST

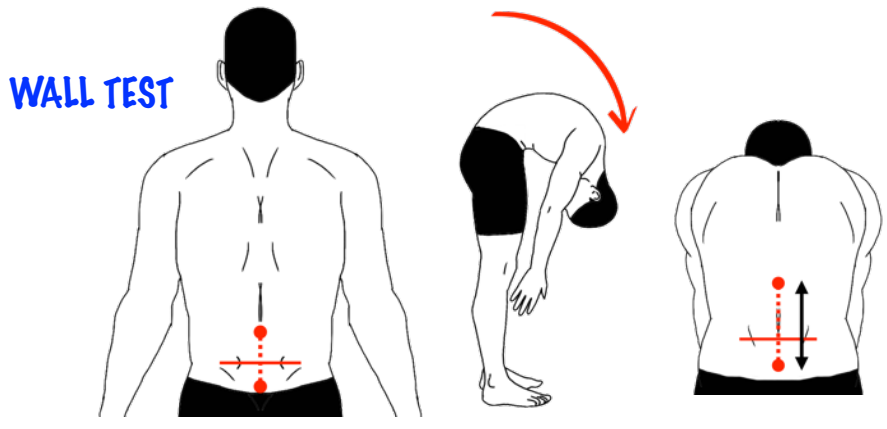
L2, L3, L4
Patient prone on couch
Flex knee to 90 degrees and extend hip
Recreation of their pain in lower back, buttocks & leg suggests disc herniation



Reduced flexion

MODIFIED SCHOBERS TEST

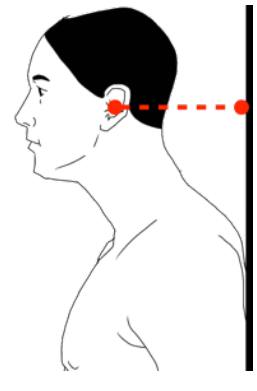
Patient standing with their back to you.
Find centre point of the lumbosacral junction (slightly above the posterior superior iliac spine - around the dimples of Venus if they've got them).
Measure 10cm above this point and 5cm below and put a mark.
Ask the patient to bend forward and touch their toes and measure the increase between the 2 marks
<5cm increase suggests reduced range of flexion.



Increased kyphosis

WALL TEST

Patient stands straight with their back against a wall with heels, buttocks and shoulders all touching the wall
If the patients head is unable to touch the wall too this suggests an increased kyphosis of the spine
Measure the wall to tragus distance
Record and redo next time to see if condition worsening



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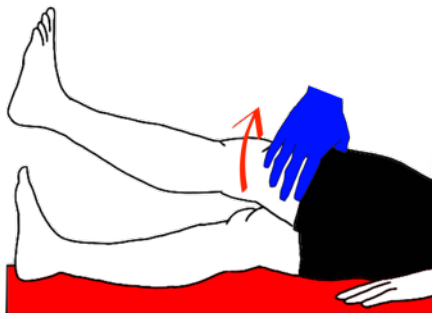
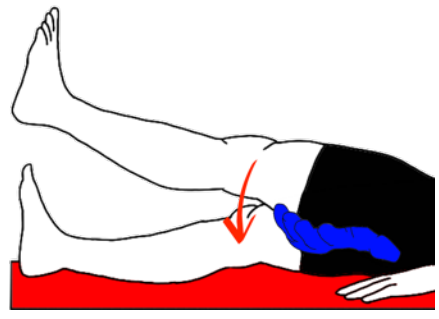
Neurovascular

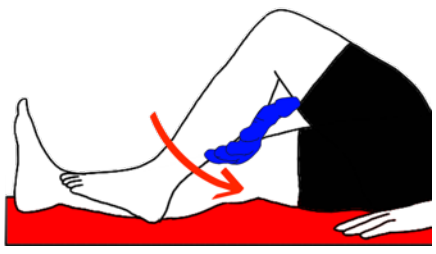
POWER



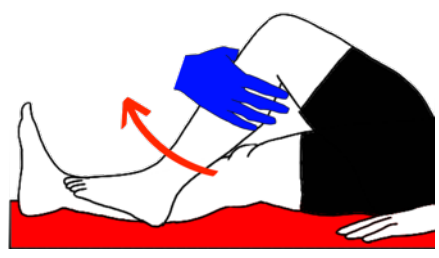
HIP FLEXION



HIP EXTENSION



KNEE FLEXION

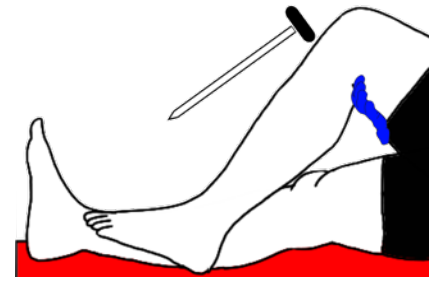


KNEE EXTENSION

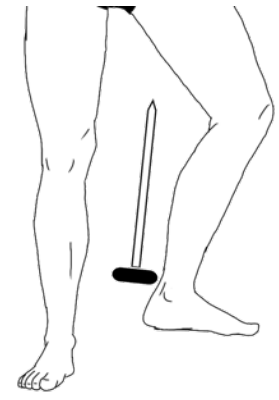
ANKLE FLEXION

TOE EXTENSION

REFLEXES

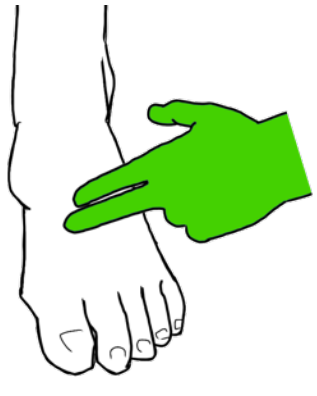


KNEE



ANKLE

PULSES



SENSATION