

Peripheral Neuro Exam

Gait

- Observe gait:
 - Posture
 - Symmetry
 - speed/cadence
 - balance on turning
- walk:
 - normal
 - on heels
 - on tip toes
 - pigeon stepping
- perform knee bend – look for prox mm weakness

Rombergs Test

- tests proprioception
- procedure:
 - arms out straight in front
 - feet together
 - close eyes & balance

+ve if loose balance

Motor System

- signs of UMN lesions:
 - ↑tone
 - pyramidal weakness - ie extensors of arms & flexors of legs more effected
 - brisk reflexes
 - extensor plantar responses
 - absent abdo reflexes
- signs of LMN lesions:
 - Wasting
 - Fasciculation
 - ↓tone
 - ↓/absent reflexes
- signs of primary mm lesion
 - wasting
 - ↓tone
 - absent reflexes
- signs of N/M junction:
 - Fatigue on repetitive movement
- Signs of Non-organic:
 - No wasting
 - Tone norm
 - Reflex norm
 - Variable/erratic weakness that don't follow pattern

Format

- Should include:
 - Inspection
 - Tone
 - Power
 - Reflexes
 - Coordination
 - Sensation

Inspection

- ?Postural abnormality
- ?mm wasting or fasciculation

Tone:

- **Clasp knife** – UMN sign. Sudden giving way of tone
- **Rigidity** = lead pipe
- **Rigidity + tremor** = cogwheeling
- **?clonus** = sudden dorsiflexion of ankle >3 abnormal

Power:

- examine myotomes in sitting/lying

Reflexes:

- **Segmental:**
 - **Biceps** C5
 - **Triceps** C7
 - **Brachioradialis** C8 – palm of hand
 - **Patellar** – L3/4
 - **Ankle** – S1

↳ can use reinforcement:
(UL: clenching teeth, clench opposite fist, LL: clasp hands & pull apart)
- **Babinski** (plantar reflex) – positive is extensor/withdrawal response
- **Superficial:**
 - **Abdominal** –
 - T8/9 & T11/12 above & below umbilicus)
 - stick across segment on skin outside to inside
 - should see contraction
 - **Cremasteric**
 - In man (L1/L2)
 - Stroke inside thigh downwards
 - Scrotum & testes on that side should contract
 - **Anal:**
 - S4/5
 - Stroke peri-anal skin
 - Anal sphincter should contract

Coordination:

- **Arms:**
 - **out straight** – sudden release of resisted extension – should see arm return to orig position
↳ wandering ⇒ cerebellar dysfunction
 - **Finger nose test** – to your finger with changing target
 - **Disdiadocokinesia** – tapping, rotation of wrists, flipping taps
- **Legs:**
 - **Posture- leg straight** – sudden release of resisted flexion
 - **Heel shin test**
 - **Disdiadocokinesia** - Tap toes quickly against your hand
- **Truncal ataxia** – sit up from lying – need smooth symmetrical movmt

Sensation

- Test areas:
 - Dermatomes
 - Territory of periph nerves – eg **glove and stocking** (\approx DM)
- Types of sensation to be tested:
 - **Light touch**
 - **Pain** – pin prick
 - **Vibration** – tuning fork on distal bony points
 - **Proprioception**
 - **Temp** – (not usually done)

Light touch

- Touching cotton wool covering dermatomes
- With eyes closed

Pain

- **pin prick** eg paperclip
- test:
 - check for normal sensation in area expected to be normal
 - cover dermatomes with pin prick
- can also test sharp/blunt

Vibration

- Apply **tuning fork** to sternum
- Test in limbs peripherally on bony prominence
↳ don't have to move prox if felt ok

Proprioception

- **Start distal** then move prox if faulty
- **Distal phalnx & big toe**
↳ ⇒ wrist ↳ ⇒ ankle
- Test:
 - hold either side joint
 - up/down?

Temp

- **hot/cold test tubes**