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

**Romberg's 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 exensors of arms & flexors of legs more effected
  - brisk reflexes
  - extensor plantar responses
  - absent abdo reflexes
- signs of LMN lesions:
  - Wasting
  - Fasiculation
  - ↓ 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 fasciulation

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

**Power:**
- examine myotomes in sitting/lying

**Reflexs:**
- 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 postion
- 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* (≈ 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**
  - ➔ wirst ➔ ankle
- Test:
  - hold either side joint
  - up/down?

**Temp**
- *hot/cold test tubes*