Neuro Exam

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Elements of The Neuro Exam

- Cranial Nerves
- Motor – bulk, tone, strength
- Coordination – fine movements, balance
- Sensation – pain, touch, position sense, vibration
- Reflexes
- Gait

*Mental status covered elsewhere

Hammer & Nails icon indicates A Slide Describing Skills You Should Perform In Lab

CN 1- Olfactory: Sense of Smell

- Check **air movement** thru ea nostril separately.
- **Smell** not usually assessed (unless sx)
  - use coffee grounds or other w/distinctive odor
    (e.g. mint, wintergreen, etc)
  - check ea nostril independently
  - detect odor when presented @ 10cm.

Functional Assessment – Acuity (Cranial Nerve 2 – Optic)

- Using hand held card (held @ 14 inches) or Snellen wall chart, assess ea eye separately. Allow patient to wear glasses.
- Direct patient to read aloud line w/smallest lettering that they're able to see.

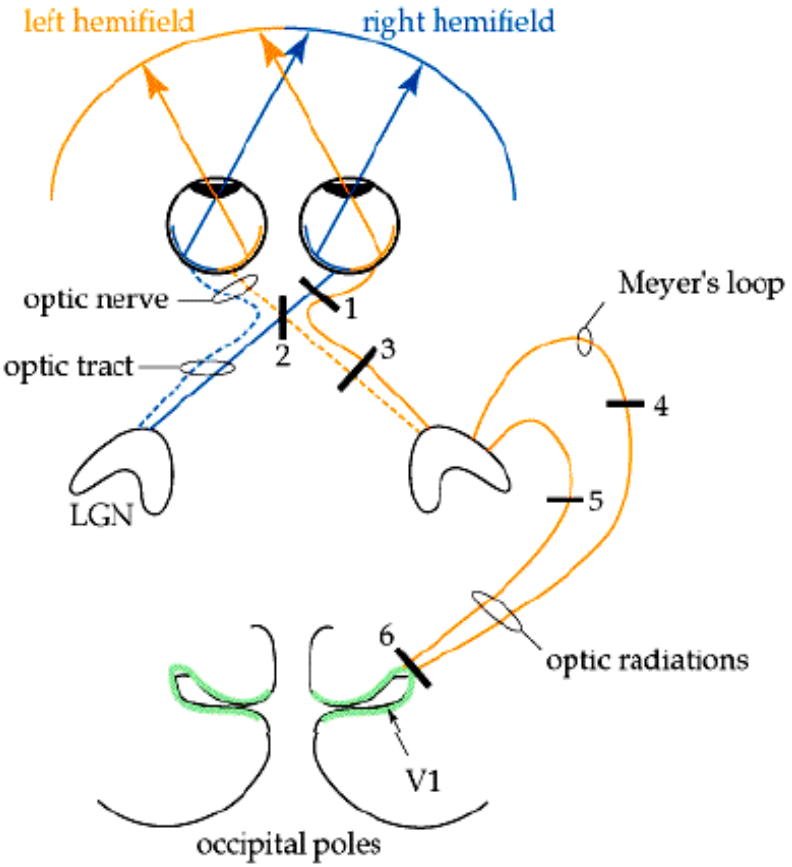
Hand Held Acuity Card

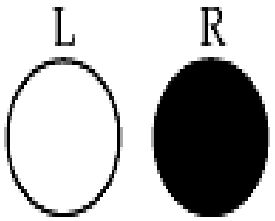
Functional Assessment – Acuity (cont)

- 20/20 =s patient can read at 20` with same accuracy as person with normal vision.
- 20/400 =s patient can read @ 20` what normal person can read from 400` (i.e. very poor acuity).
- If patient can't identify all items correctly, number missed is listed after a '-' sign (e.g. 20/80 -2, for 2 missed on 20/80 line).

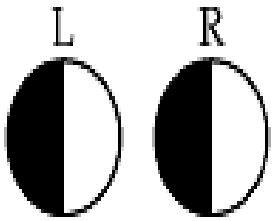
Snellen Chart For Acuity Testing

Functional Assessment - Visual Fields (Cranial Nerve 2 - Optic)





Lesion #1



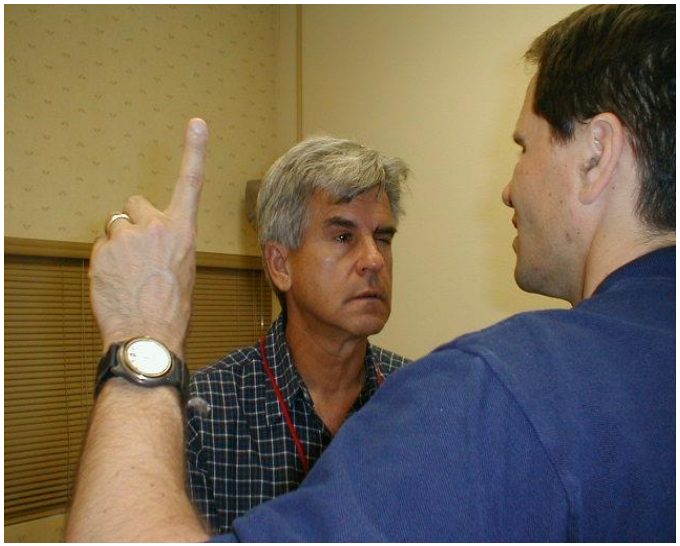
Lesion #3

Images from: Wash Univ. School of Medicine, Dept Neuroscience http://thalamus.wustl.edu/course/basvis.html

NEJM Interactive case – w/demo of visual field losses: http://www.nejm.org/doi/full/10.1056/NEJMimc1306176?query=featured_home

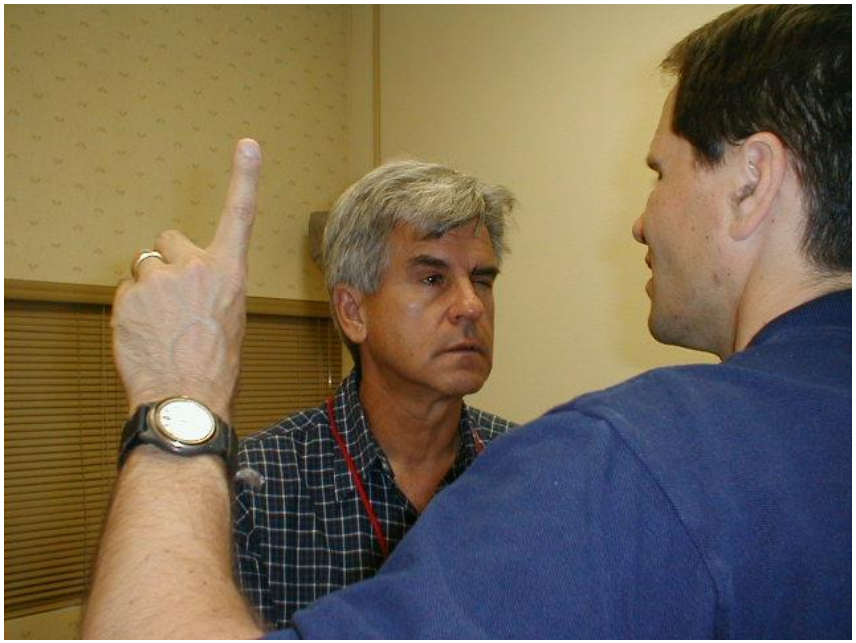
CN 2 - Checking Visual Fields By Confrontation

- Face patient, roughly 1-2 ft apart, noses @ same level.
- Close your R eye, while patient closes their L. Keep other eyes open & look directly @ one another.
- Move your L arm out & away, keeping it ~ equidistant from the 2 of you. A raised index finger should be just outside your field of vision.



CN 2 - Checking Visual Fields By Confrontation (cont)

- Wiggle finger & bring it in towards your noses. You should both be able to detect it @ same time.
- Repeat, moving finger in from each direction. Use other hand to check medial field (i.e. starting in front of the closed eye).
- Then repeat for other eye.



Pupillary Response

- Pupils modulate amount of light entering eye (like shutter on camera)
- Dark conditions→dilate; Bright→constrict
- Pupils respond symmetrically to input from either eye
  - Direct response =s constriction in response to direct light
  - Consensual response =s constriction in response to light shined in opposite eye
- Light impulses travel away (afferents) from pupil via CN 2 & back (efferents) to cilliary muscles that control dilatation via CN 3

Pupillary Response Testing Technique

- Make sure room is dark→pupils a little dilated, yet not so dark that cant observe response – can use your hand to provide “shade” over eyes
- Shine light in R eye:
  - R pupil → constricts
  - Again shine light in R eye, but this time watch L pupil (should also constrict)
- Shine light in L eye:
  - L pupil → constricts
  - Again shine light in L eye, but this time watch R pupil (should also constrict)

Pupillary Response Testing Technique

- Swinging Flashlight Test
  - Looks for afferent pupil defect (CN II)
  - After observing each eye individually, move the flashlight between the left and right eye at a steady rate
  - See an example at Neuroexam.com:
    - http://www.neuroexam.com/neuroexam/content.php?p=19

Describing Pupilary Response

- Normal recorded as: **PERRLA** (**P**upils **E**qual, **R**ound, **R**eactive to **L**ight and **A**ccommodation) – w/accommodation = to constriction occurring when eyes follow finger brought in towards them, directly in middle (i.e. when looking “cross eyed”).
- Abnormal responses can be secondary to:
  - direct or indirect damage to either CN 2 or 3
    - Or parasympathetic injury to CN3 or damage to the sympathetic neurons
  - meds e.g. sympathomimetics (cocaine)→ dilate, narcotics (heroin)→ constrict.

Pupil Response Simulator

University of California, Davis School of Medicine – Designed by Dr. Rick Lasslo, M.D., M.S.

http://cim.ucdavis.edu/EyeRelease/Interface/pSim.htm

CNs 3, 4 & 6
Extra Ocular Movements

- Eye movement dependent on Cranial Nerves 3, 4, and 6 & muscles they innervate.
- Allows smooth, coordinated movement in all directions of both eyes simultaneously
- There's some overlap between actions of muscles/nerves

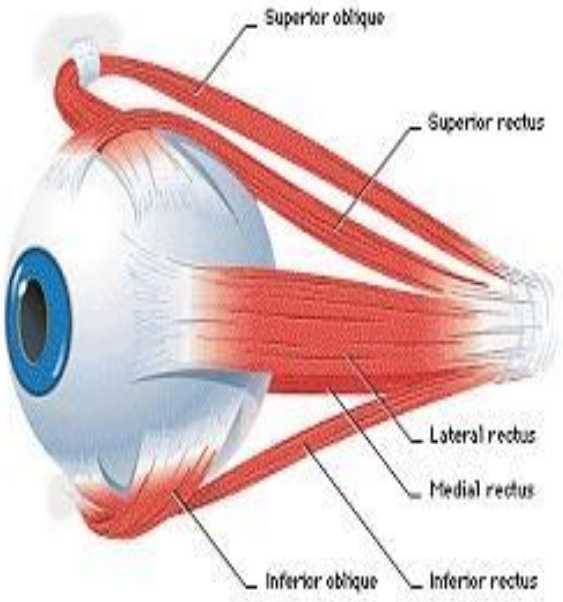


Image Courtesty of Leo D Bores, M.D. Occular Anatomy: http://www.e-sunbear.com/anatomy_01.html

Cranial Nerves (CNs) 3, 4 & 6
Extra Occular Movements (cont)

- CN 6 (Abducens)
  - Lateral rectus muscle→moves eye laterally
- CN 4 (Trochlear)
  - Superior oblique muscle→moves eye down (depression) when looking towards nose; also rotates internally.
- CN 3 (Oculomotor)
  - All other muscles of eye movement – also raises eye lid & mediates pupilary constriction.

CNs & Muscles That Control Extra Occular Movements

LR- Lateral Rectus

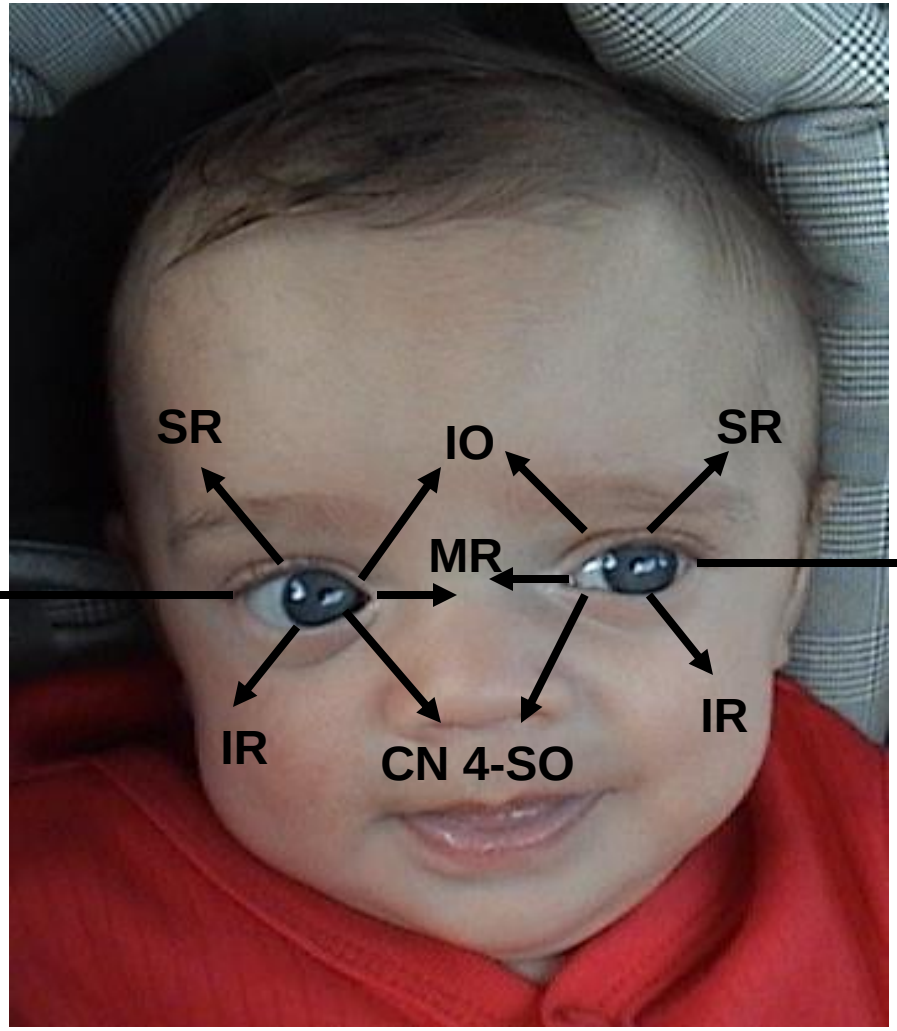
MR-Medial Rectus

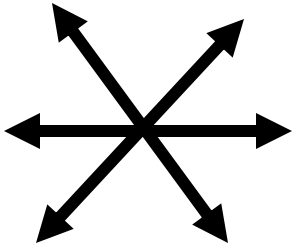
SR-Superior Rectus

IR-Inferior Rectus

SO-Superior Oblique

IO-Inferior Oblique





6 “Cardinal” Directions Movement

SO ‘4’, LR ‘6’, All The Rest ‘3’

Technique For Testing Extra-Ocular Movements

- To Test:
  - Patient keeps head immobile, following your finger w/their eyes as you trace letter “H”
  - Alternatively, direct them to follow finger w/their eyes as you trace large rectangle
- Eyes should move in all directions, in coordinated, smooth, symmetric fashion.
- Hold the eyes in lateral gaze for a second to look for nystagmus

Extra Occular Eye Movement Simulator

University of California, Davis School of Medicine – Rick Lasslo, M.D., M.S.

http://cim.ucdavis.edu/eyes/version1/eyesim.htm

Function CN 5 - Trigeminal

- Sensation:
  - 3 regions of face: Ophthalmic, Maxillary & Mandibular
- Motor:
  - Temporalis & Masseter muscles

Function CN 5 – Trigeminal (cont)

Motor

Temporalis (clench teeth)

Masseter (move jaw side-side)

Sensory

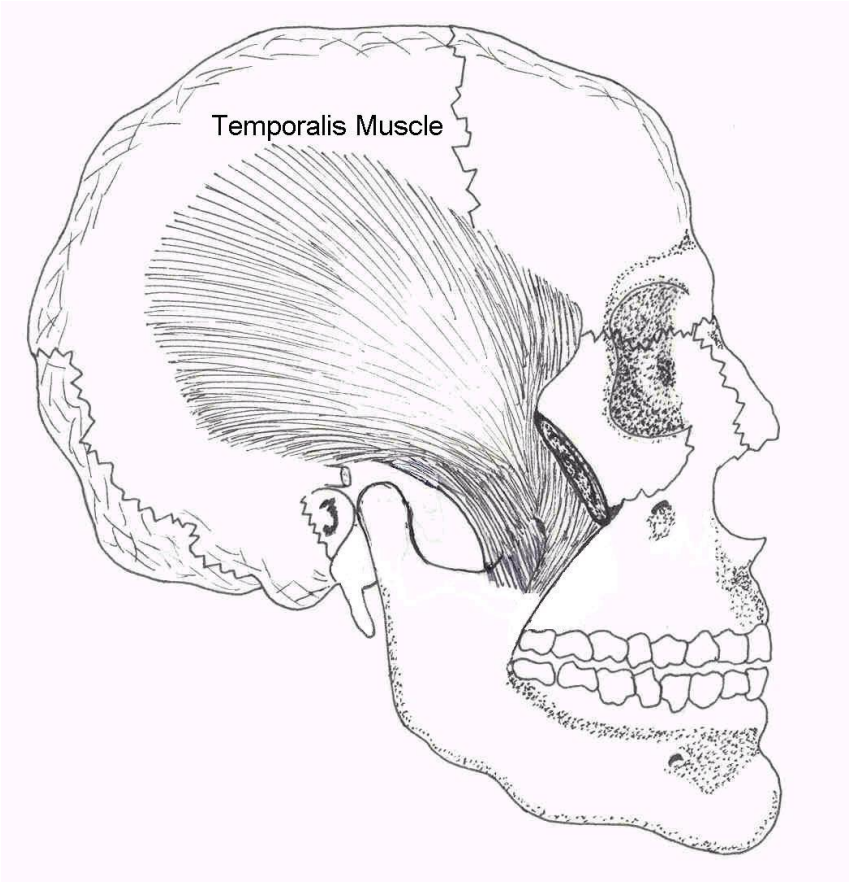
Ophthalmic(V1)

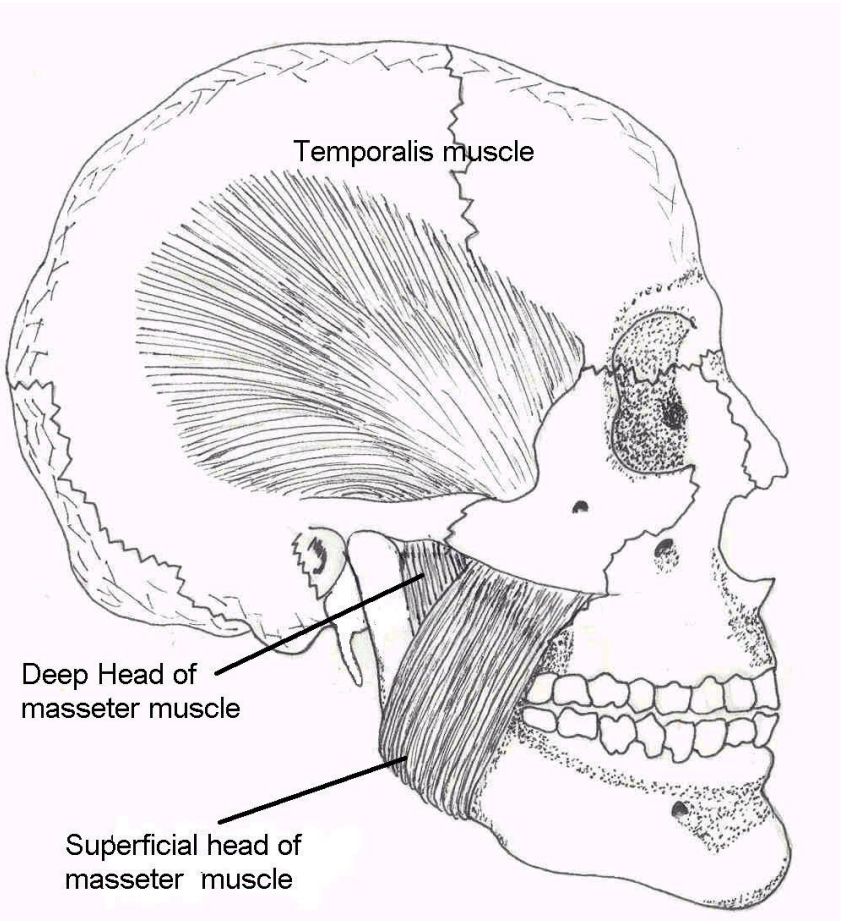
Maxillary (V2)

Mandibular (V3)

* Corneal Reflex: Blink when cornea touched - Sensory CN 5, Motor CN 7

Temporalis & Masseter Muscles



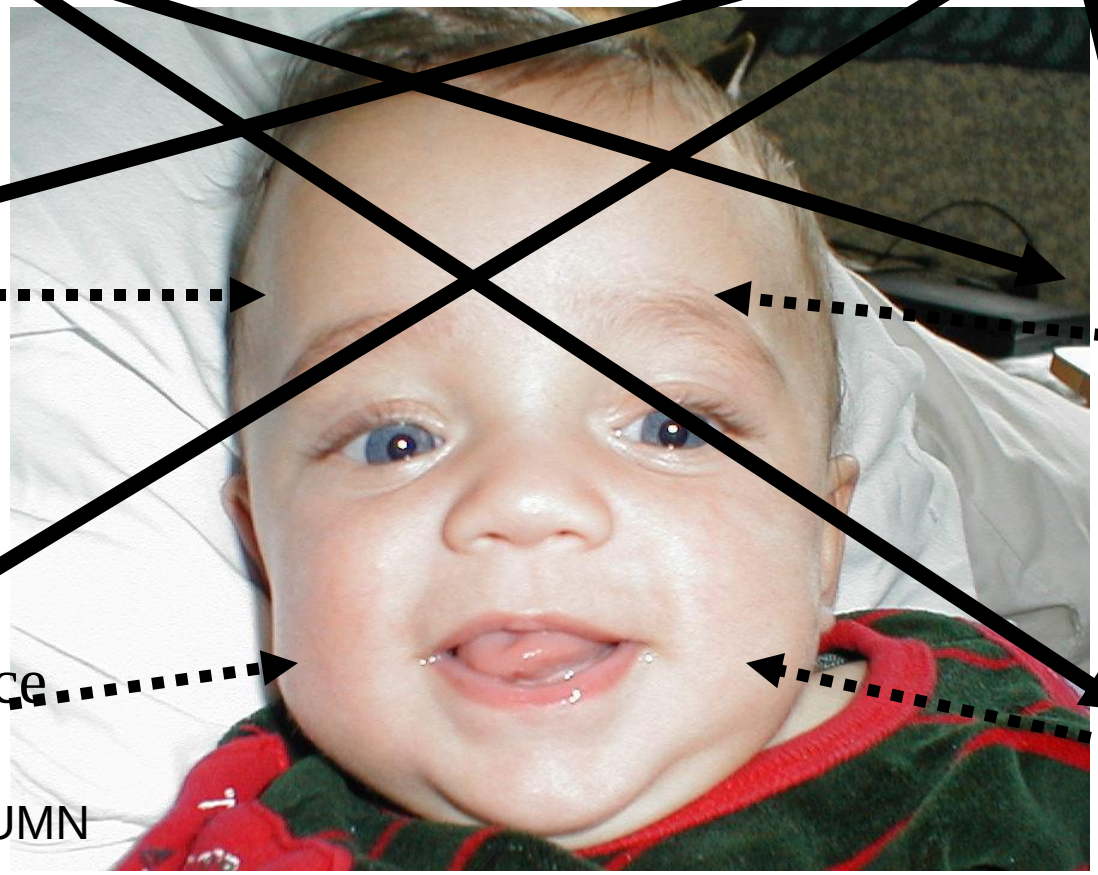


Oregon Health Sciences University:
http://home.teleport.com/~bobh/

Testing CN 5 - Trigeminal

- Sensory:
  - Ask pt to close eyes
  - Touch ea of 3 areas (ophthalmic, maxillary, & mandibular) lightly, noting whether patient detects stimulus.
- Motor:
  - Palpate temporalis & mandibular areas as patient clenches & grinds teeth
- Corneal Reflex:
  - Tease out bit of cotton from q-tip - Sensory CN 5, Motor CN 7
  - Blink when touch cornea w/cotton wisp

Function CN 7 – Facial Nerve
Facial Symmetry & Expression - Precise Pattern of Inervation



R UMN

L UMN

R LMN - Forehead

L LMN - Forehead

R LMN – Face

L LMN -Face

Thick arrow =s UMN

Dashed arrow =s LMN

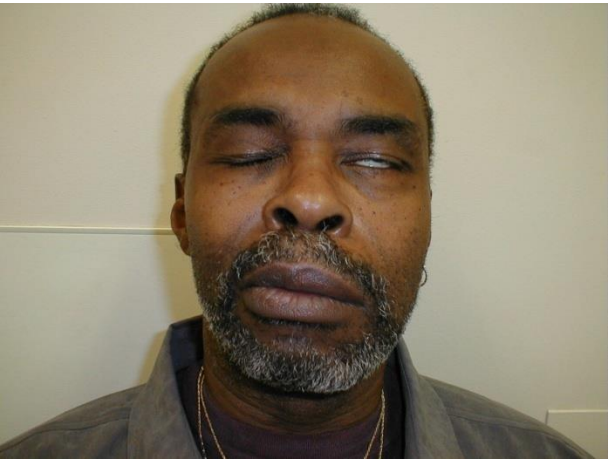
CN 7 – Exam

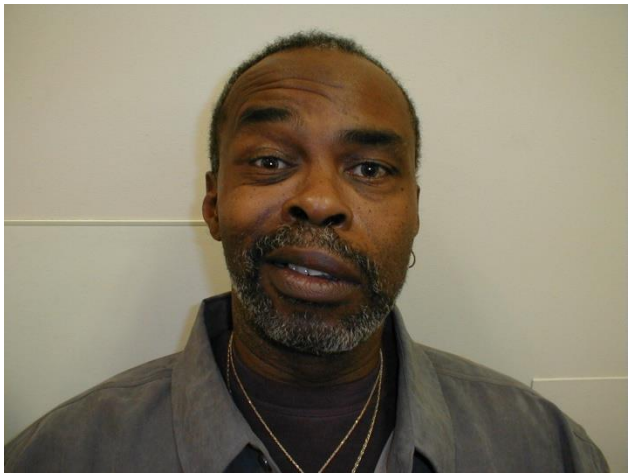
- Observe facial symmetry
- Wrinkle Forehead
- Keep eyes closed against resistance
- Smile, puff out cheeks
- Rarely you may need to check taste to the anterior 2/3 of the tongue

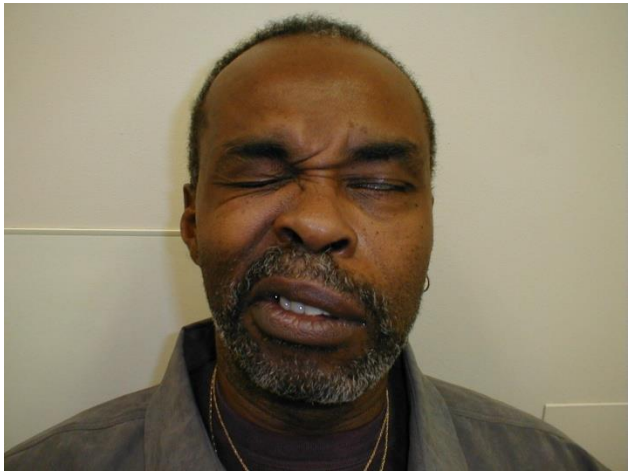
Cute.. and symmetric!

Pathology: Peripheral CN 7 (Bell's) Palsy

Patient can't close L eye, wrinkle L forehead or raise L corner mouth→L CN 7 Peripheral (i.e. LMN) Dysfunction







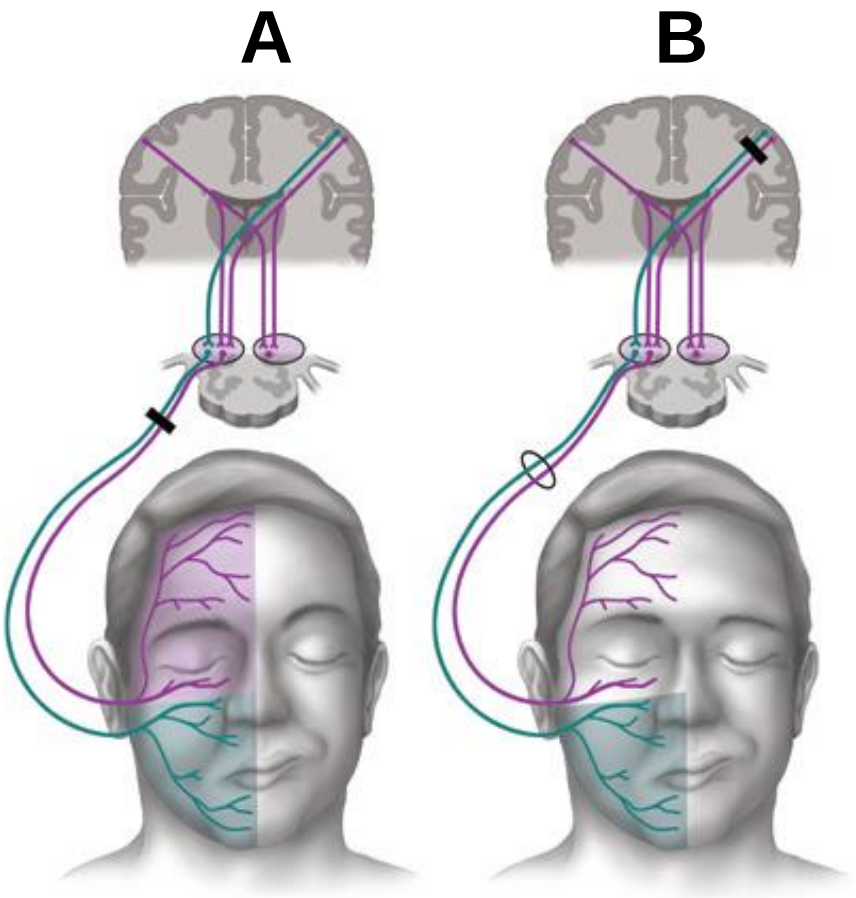
<u>Central (i.e. UMN) CN 7 dysfunction (e.g. stroke) - not shown:</u> Can wrinkle forehead bilaterally; will demonstrate loss of lower facial movement on side opposite stroke.

Comparison of a patient with *(A)* a facial nerve (Bell's Type - LMN) lesion and *(B)* a supra-nuclear (UMN) lesion w/forehead sparing

Tiemstra J et al. Bell's Palsy: Diagnosis and Management, Amer J Fam Practice, 2007;76(7):997-1002.
http://www.aafp.org/afp/2007/1001/p997.pdf

Upper Motor Neuron (UMN)

Lower Motor Neuron (LMN)



Note forehead and lower face are affected on the right, which is same side of the LMN lesion

Note forehead sparing on right side, opposite the UMN lesion

The Ear – Functional Anatomy & Testing (CN 8 – Acoustic)

- Crude tests hearing – rub fingers next to either ear; whisper & ask pt repeat words
- If sig hearing loss, determine Conductive (external canal up to but not including CN 8) v Sensorineural (CN 8)

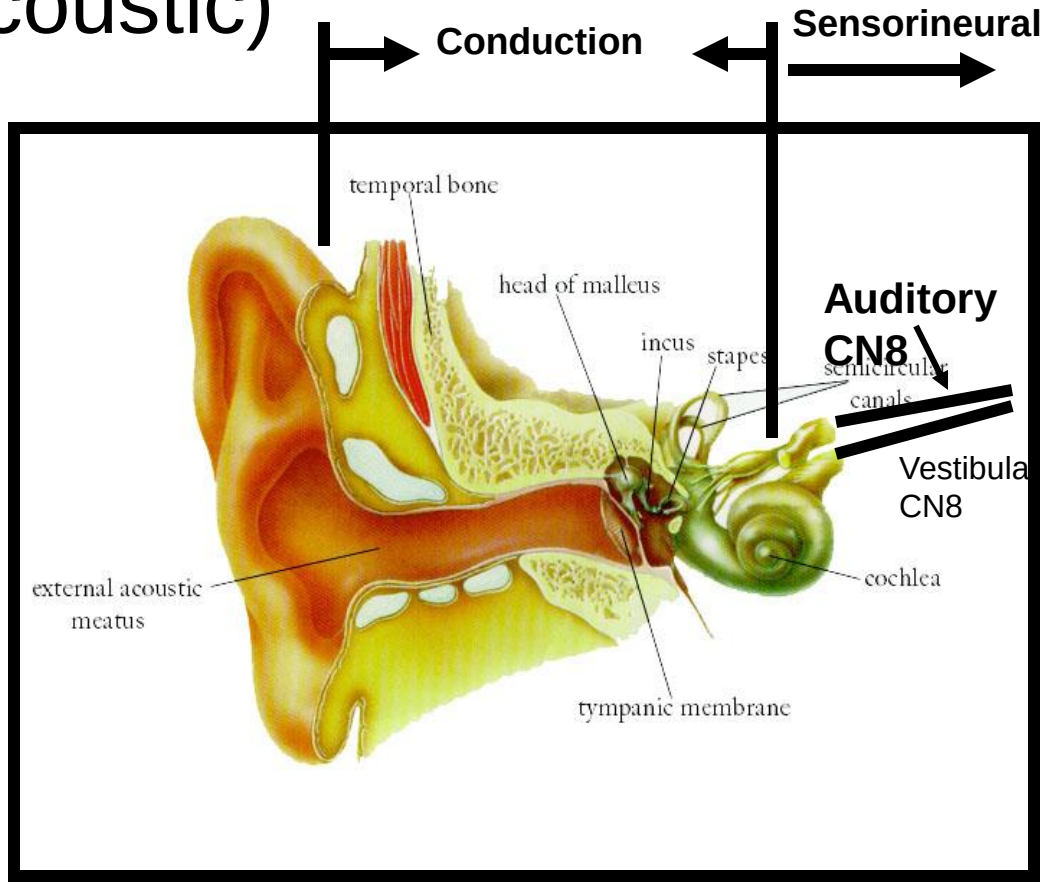


Image Courtesy: Online Otoscopy Tutorial
http://www.uwcm.ac.uk:9080/otoscopy/index.htm

CN 8 - Defining Cause of Hearing Loss - Weber Test

- 512 Hz tuning fork - this (& not 128Hz) is well w/in range normal hearing & used for testing
  - Get turning fork vibrate→ striking ends against heel of hand **or**

    Squeeze tips between thumb & 1st finger
- Place vibrating fork mid line skull
- Sound should be heard

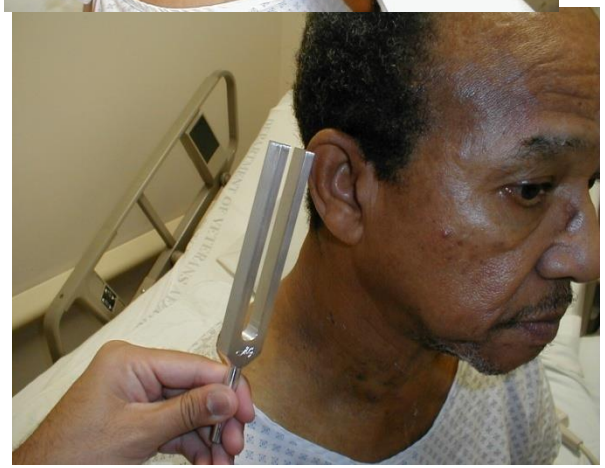
  =ly R and L → bone conducts to both sides.

CN 8 - Weber Test (cont)

- If **conductive** hearing loss (e.g. obstructing wax in canal on L)→louder on L as less competing noise.
- If **sensorineural** on L→louder on R
- Finger in ear mimics conductive loss

CN 8 - Defining Cause of Hearing Loss - Rinne Test

- Place vibrating 512 hz tuning fork on mastoid bone (behind ear).
- Patient states when can't hear sound.
- Place tines of fork next to ear→ should hear it again – as air conducts better then bone.
- If BC better then AC, suggests **conductive** hearing loss.
- If **sensorineural** loss, then AC still > BC

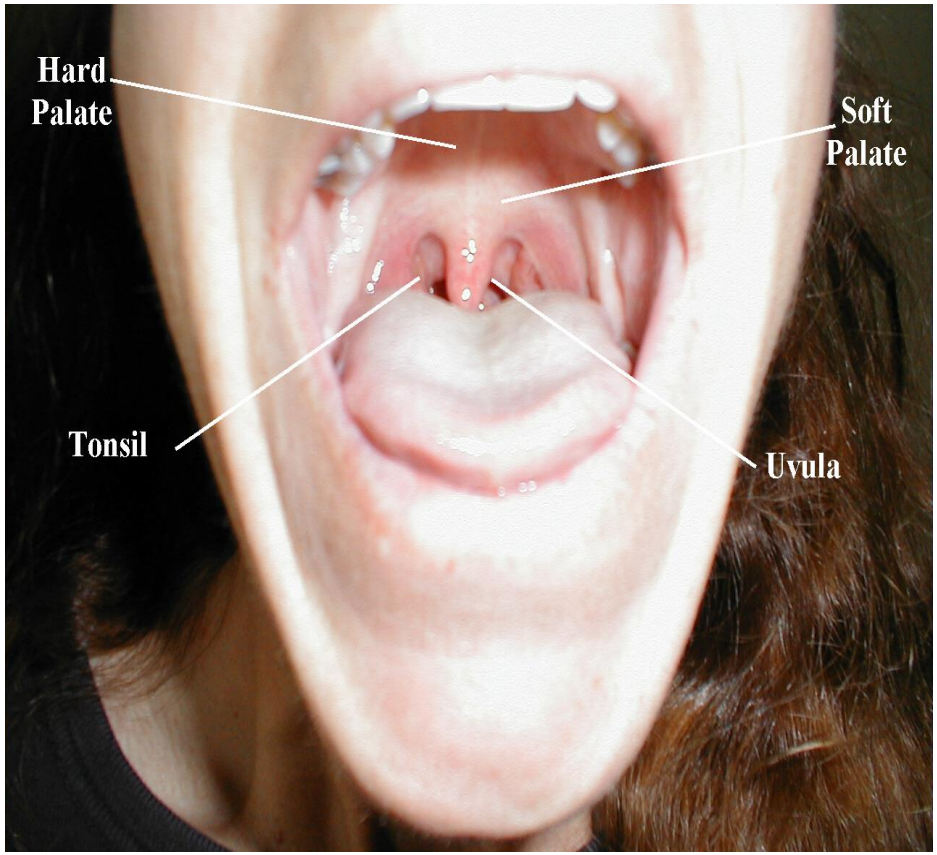


Note: Weber & Rinne difficult to perform in Anatomy lab due to competing noise – repeat @ home in quiet room!

CN 8 Vestibular Division

- You will not routinely test; only w/patients who present w/new onset “dizziness”
- If the patient has vertigo you will need to perform a Dix-Hallpike maneuver
- You can seen an example of it here: http://www.neuroexam.com/neuroexam/content.php?p=23

Oropharynx: Anatomy & Function CNs 9 (Glossopharyngeal), 10 (Vagus)



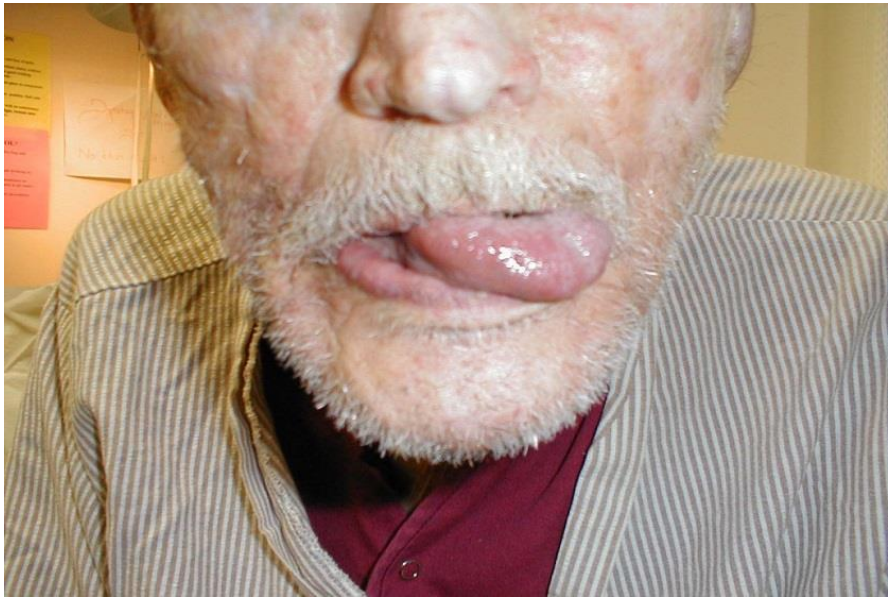
- **CN 9 &10** are tested together
- Check to see uvula is midline
- Stick out tongue, say "**Ahh"** – use tongue depressor if can't see
  - Nl response: palate/uvula rise
  - We assume 9 is intact if the palate rises symmetrically thus we test 9 and 10 indirectly here
- **Gag Reflex** – provoked with tongue blade or q tip - CN 9 (afferent limb), 10 (efferent limb) – test this bilaterally
  - This directly tests 9 and 10

Hypoglossal CN 12

- **Tongue midline** when patient sticks it out→**CN 12**
  - check **strength** by directing patient push **tip** into **inside** of **either cheek** while you push from outside
  - Observe for atrophy or fasciculations

CN 9 & 12 Pathology

L CN 9 palsy: uvula pulled to R



L CN 12 palsy: tongue deviates L

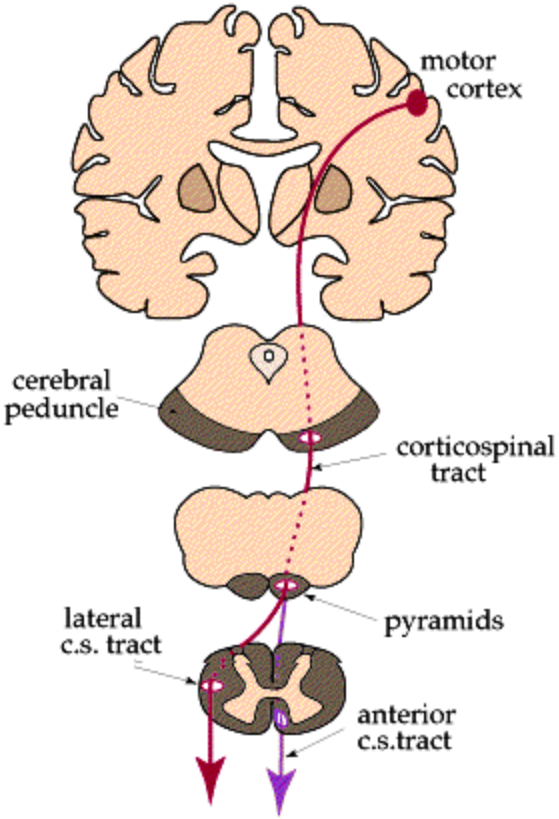
Neck Movement (CN 11 – Spinal Accessory)

- **Turn head** to **L** into R hand→ function of **R Sternocleidomastoid** (SCM)
- **Turn head** to **R** into L hand (**L SCM**)
- **Shrug shoulders** into your hands

Motor/Strength Anatomy and Physiology

- Impulse starts brain
- Axon (upper motor neuron) crosses opposite side @ brain stem
- Travels down spinal cord

  → specific level Corticospinal (Pyramidal) Tracts
- Synapses w/2nd neuron (lower motor neuron)
- Leaves cord & travel to target muscle
- Muscle moves



Washington Univeristy (St Louis) School of Medicine - Dept Neuroanatomy
http://thalamus.wustl.edu/course/basmot.html

Muscles – Observation/Bulk and Palpation

- Make sure to **fully expose** the muscle that you're examining
- Note Bulk (amount of muscle mass): accounting for size patient, activity level, age – if decreased, ? Symmetric
- Palpation: feel the major muscle groups → provides insight about bulk, also ? any Inflammation, pain

L calf hypertrophy and R calf atrophy

L hand muscle wasting from de-nervation

Muscle Tone; Observe For Tremor

- Tone – move major joints (wrists, elbows, shoulders, hips,

  knees, feet) → range of motion
  - normal → fluid
  - increased w/UMN lesion (spasticity)
  - decreased (flacid) w/LMN lesion
- Obvious tremor, unintended movements, fasciculations:
  - loss of muscle innervation (rare!)
  - Video of fasciculations: http://meded.ucsd.edu/clinicalmed/fasciculations.html

Strength – Scoring System

Quantify with **0 → 5** Medical Research Council Scale (quasi-objective)

- **0/5** No movement
- **1/5** Barest flicker movement →not enough to move structure to which attached.
- **2/5** Voluntary movement not sufficient to overcome force of gravity. E.g. patient able to slide hand across table - but not lift it from surface.
- **3/5** Voluntary movement capable of overcoming gravity, not any applied resistance. E.g. patient raises hand off table, but not w/any additional resistance applied.
- **4/5** Voluntary movement capable of overcoming "some" resistance
- **5/5** Normal strength

+/– can be added to allow for more nuanced scoring of 4/5 strength (e.g., 4+ or 4-; but not 5-, 3+ or 3-, etc.)

Specific Muscle Group Testing

- Test the major muscle groups
  - Recognize that you will need to augment exam based on clinical picture/syndrome and may not test everything
  - Test one muscle group at a time and compare right to left
    - Should be similar accounting for handedness
- Start with shoulder - abduction & adduction
- Elbow - flexion & extension
- Wrist - extension & flexion
- Interossei of Hand – finger abduction & adduction
  - Usually first dorsal interosseous and abductor digiti minimi
  - Add others as clinically indicated
- Grip strength (okay for screening but unreliable)
  - Keep out of the pincer grasp!
- Also must account for age, sex, expected/appropriate strength

Muscle Group Testing (cont)

- Hip - flexion & extension
- Hip – abduction & adduction
- Knee – flexion & extension
- Ankle – plantar flexion & dorsiflexion

Pronator Drift: A test for subtle upper extremity weakness.

- Have patient stand, close their eyes & extend both hands, palm up.
- E.g. If R arm slightly weak, it will pronate & “drift” down ward – suggests UMN lesion

Coordination & Fine Motor Movement

- Coordinated movement depends significantly on cerebellar input - though also requires strength, crude motor function, joint movement, vision, sensation, etc.

<u>Several tests provide similar info:</u>

Specifics:

- Finger-to-nose:
  - Place your finger in space in front of patient
  - Have pt move their index finger between their nose & your finger tip
- Heel-to-shin:
  - Have patient run heel of 1 foot up & down opposite shin

Coordination (cont)

Specifics (cont):

- Rapid Alternating Hand Movement
  - Have patient alternately touch back & then front of 1 hand against palm of other
- Rapid Alternating Finger Movement
  - Have patient alternately touch tips of ea finger against thumb of same hand

Gait & Speech (tested elsewhere) often also abnormal in setting of cerebellar dysfunction

Normal movement is both **smooth** & **accurate**.

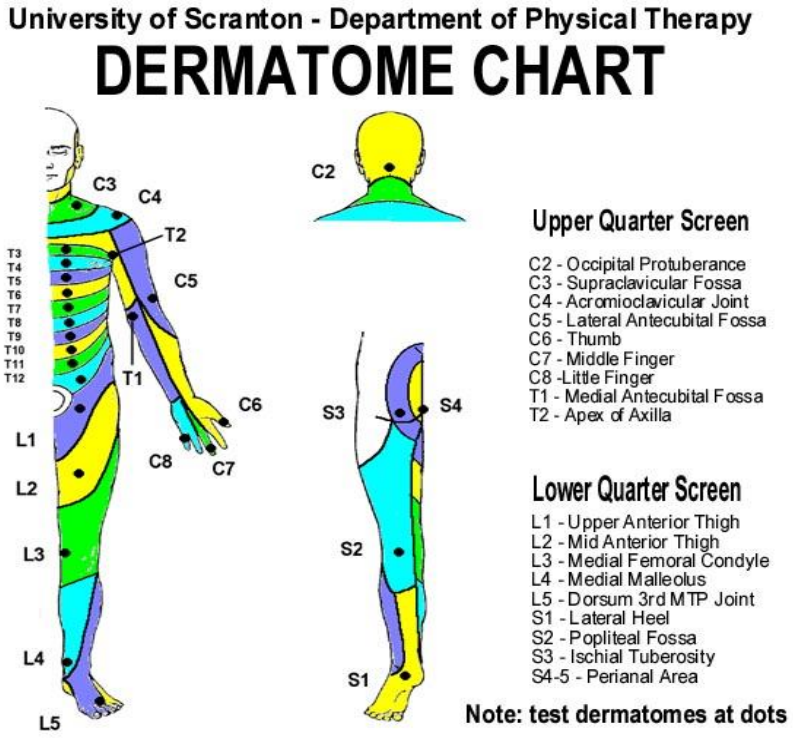
- If it is slow but regular and smooth, think weakness.

Sensory Testing
Anatomy & Physiology

- 2 main pathways: Spinothalamics & Dorsal columns.
- Spinothalamics
  - Pain, temperature, crude touch
  - Impulses enter from periphery→ cross to other side of cord within ~ 2 vertebral levels→ travel up that side to brain
- Dorsal Columns
  - Vibration, position, fine touch
  - Impulses from periphery enter cord→travel up that side→cross to opposite @ base of brain→then travel to their terminus

Nerves and Their Distributions

- Specific dermatomes not usually memorzied – reference chart helpful to pin down deficits
- Distributions (& spinal root contributions) for specific peripheral nerves→ looked up in appropriate setting
  - http://www.neuroguide.com/greatlessoccipital.html



http://academic.uofs.edu/department/pt/students/dermatom.htm

Spinothalamics – Pain, Temperature & Crude Touch

- Break Q-tip in half, creating sharp, pointy end
  - or use a safety pin's sharp and blunt end
- Ask patient to close eyes→ unable to get visual clues.
- Start @ top of foot.
  - Orient patient by first touching w/sharp implement, then non-sharp object (e.g. the soft end of a q-tip) → clarifies for patient what you're defining as sharp & dull

Spinothalamics – Pain, Temperature and Crude Touch (cont)

- Touch lateral aspect of foot w/either sharp or dull tool→ patient reports their response.
- Move medially across top of foot, noting their response to ea touch.
  - Remember to cross dermatomes
- Temperature tested by using a tuning fork (run under cold or warm water)

Spinothalamics – Pain, Temperature & Crude Touch (cont)

- Light touch assessed by gently brushing your finger against extremity & asking patient (eyes closed) to note when they feel it
- Upper extremities checked in same fashion

Dorsal Columns - Proprioception

- Allows body to “know” where it is in space
- Important for balance, walking
- Ask patient to close eyes→ don’t receive any visual cues.
  - With one hand, grasp either side of great toe at the interphalangeal (IP) joint. Place your other hand on the lateral and medial aspects of the great toe distal to the IP.
  - Orient patient as to up and down:
    - Flex the toe (pull it upwards) while telling patient what you’re doing.
    - Extend toe (pull it downwards) while informing them of which direction you’re moving it.

Dorsal Columns – Proprioception (cont)

- Alternately deflect toe up or down w/out telling patient in which direction you're moving it→ should be able to correctly identify movement & direction –Test both feet.
- Can be checked @ a more proximal joint (e.g. ankle) if abnormal.
- Upper extremities assessed in same fashion, deflecting finger up & down

For variations see: http://www.neuroexam.com/neuroexam/content.php?p=40

Dorsal Columns – Vibratory Sensation

- Ask patient to close eyes →don't receive visual cues.
- Grasp **128 Hz** tuning fork by stem & strike forked ends against the floor→ vibrate.
  - Place stem on top of interphalangeal joint of great toe (you want to be on the most distal joint for this exam)
  - Place fingers of your other hand on bottom-side of joint
  - Ask patient if they can feel vibration.
  - You should be able to feel same sensation w/fingers on bottom side of joint.

Dorsal Columns – Vibratory Sensation (cont)

- Patient determines when vibration stops➔ correlates w/when you can't feel it transmitted through joint
- Test both feet.
- Check more proximal joints (e.g. ankle) if sensation impaired.
- Upper extremities assessed similarly, w/fork placed on distal finger joint

Special Sensory Testing

TWO POINT DISCRIMATION (fine touch):

- 2 point discrimination (Dorsal Columns) particularly useful when assessing for discrete peripheral nerve injury (e.g. traumatic disruption)
- Open paper clip → ends ~ 5mm apart
- Patient closes eyes
- Alternately touch w/1 point or 2 – normal nerve function enables them to make distinction

Special Sensory Testing (cont)

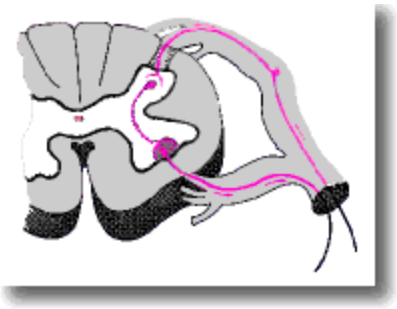
Sensory Testing…

MONOFILAMENT TESTING

- Screening test for diabetic neuropathy
- Touch monofilament to 5-7 areas on bottom of foot.
- Normal =s Patient can detect filament when tip lightly applied to skin (i.e. before it bends).

…Trying To **Prevent** This!

Reflex Testing
Anatomy and Physiology



Penn State Univ

http://www.hmc.psu.edu/sciweb/anat/anat4.htm

- Reflex arc made has afferent (sensory) & efferent (motor) limb
- Synapse in spinal cord, @ which point also input from upper motor neuron
- Disruption of any part of path alters reflexes: e.g.
  - UMN lesion → reflexes more brisk (hyper-reflexia)
  - LMN or peripheral sensory lesions→opposite effect (hypo-reflexia)
- Reflexes graded 0-4+ scale: 0 = no reflex, 1+ = hyporeflexia, 2+ = normal, 3+ = hyper-reflexia, 4+ = clonus (multiple movements after a single stimulus)

Reflex Basics

- Reflexes generally assessed in 5 places - 3 in the arm (biceps, triceps, brachioradialis); 2 in the leg (patellar & achilles)
- Basic Technique for assessing a reflex:
  - Clearly identify tendon of muscle to be tested
  - Position limb so muscle @ rest
  - Strike tendon briskly
  - Observe for muscle contraction & limb movement

Reflex Basics (cont)

- Array of hammers – all effective
- Reflex Trouble Shooting:
  - Make sure patient relaxed & that you're striking tendon directly
  - Hammer swings freely
  - Reinforcement (distraction) helps if you're having problems
    - When testing legs, ask patient to pull their hands apart as you strike tendon
    - When testing the upper extremities, ask them to clench teeth

Example of Hyper-Reflexia: http://meded.ucsd.edu/clinicalmed/patellar_compare.htm

Biceps (C 5, 6)

- Identify biceps tendon→have patient flex elbow against resistance while you palpate antecubital fossa
- Place arm so it's bent ~ 90 degrees
- Place one of your fingers on tendon and strike it birskly
- Muscle should contract & forearm flex

Triceps (C 7, 8)

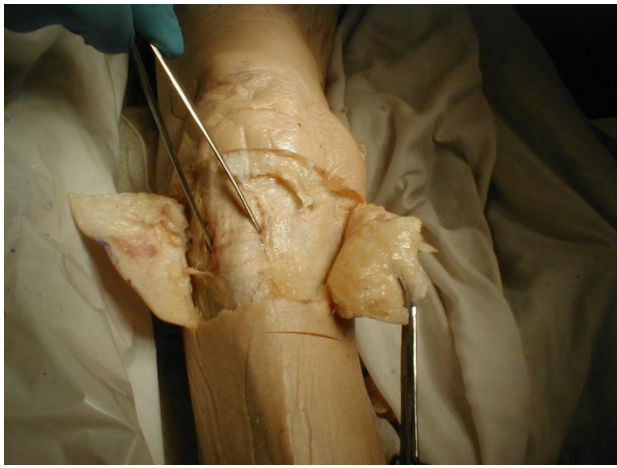
- Identify triceps tendon→have patient extend elbow against resistance while you palpate above it
- Arm can hang down @ ninety degrees or have hands on hips
- Strike tendon directly or place finger on the tendon & strike it
- Triceps muscle contracts & arm extends.

Brachioradialis (C5, 6)

- Tendon for brachioradialis is ~ 10 cm proximal to wrist – you cant see or feel it
- Place arm so resting on patient's thigh, bent @ elbow
- Strike firmly
- Muscle will contract & arm will flex @ elbow & supinate

Patellar (L3, 4)

- Patellar tendon extends below knee cap – it's thick & usually visible & palpable – if not, palpate while patient extends lower leg
- Strike firmly on tendon
- Muscle will contract & leg extend @ knee



Achilles (S1, S2)

- Achilles tendon→thick structure connecting

  calf muscles→heel – if having trouble finding, palpate as patient pushes their foot into your other hand
- Hold foot @ 90 degrees
- Strike tendon firmly
- Muscle will contract & foot plantar-flex (move downward)

Babinski

- Gently stroke bottom of foot, starting laterally & near heel – moving up & across balls of feet (metatarsal heads)
  - If no response, increase your pressure
- Normal =s great toe moving downward
- If UMN lesion (or in newborns), great toe will extend & other toes fan out

Babinski Response – UMN lesion

http://meded.ucsd.edu/clinicalmed/babinski_compare.htm

Gait and Romberg Testing

- Romberg: Test of balance & co-ordination→ input from multiple systems: proprioception, vestibular, cerebellum
  - Ask patient to stand still w/eyes closed
  - If @ risk for falling, be in position to catch ‘em (i.e. behind them) & get help
- Gait – pay attention to:
  - initiation of activity
  - arm, leg movement & position
  - speed & balance
  - have patient walk heel to toe
  - heel walking
  - toe walking

Example – Gait after stroke:

http://meded.ucsd.edu/clinicalmed/walking.htm

Summary of Skills

- ☐ Wash Hands
- ☐ Cranial Nerves:
  - ☐ CN1 (Olfactory) Smell
  - ☐ CN2 (Optic) Visual acuity; Visual fields
  - ☐ CNs 2&3 (Optic, Occulomotor) Pupilary Response to light
  - ☐ CNs 3, 4 & 6 (Occulomotor, Trochlear, Abduscens) Extra-Occular Movements
  - ☐ CN 5 (Trigeminal) Facial sensation; Muscles Mastication (clench jaw, chew); Corneal reflex (w/CN 7)
  - ☐ CN 7 (Facial) Facial expression
  - ☐ CN 8 (Auditory) Hearing
  - ☐ CN 9, 10 (Glosopharyngeal, Vagus) Raise palate (“ahh”), gag
  - ☐ CN 11 (Spinal Accessory) Turn head against resistance, shrug shoulders
  - ☐ CN 12 (Hypoglossal) Tongue

Continued→

Time Target: < 15 minutes

Summary of Skills (cont)

- ☐ Motor testing:
  - ☐ muscle bulk
  - ☐ tone
  - ☐ strength of major groups
- ☐ Sensory testing - in distal lower & upper extremities:
  - ☐ pain/crude touch
  - ☐ proprioception
  - ☐ vibration
- ☐ Reflexes
  - ☐ achilles
  - ☐ patellar
  - ☐ brachioradialis
  - ☐ biceps
  - ☐ triceps
- ☐ Coordination (finger→nose, heel→shin, etc.)
- ☐ Gait, Romberg
- ☐ Wash Hands

Time Target: < 15 minutes