

CRANIAL NERVES

OLFACTORY

Block one nostril, use good coffee

Unilateral loss= meningioma or increased ICP

Bilateral loss= trauma

OPTIC

Look at the pupils. Different sizes? = ANISOCORNEA

SCOPE THE FUNDUS: weirdness? Pale disk, hemorrhages etc?...

TEST ACUITY: get their glasses off, use Snellen chart

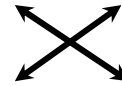
Normal = able to read line 6 at 6 metres

(1st number = seen by pt)

(2nd number = seen by normal person)

VISUAL FIELDS:

**Look into my eyes; see wiggling finger?
(come INTO field, not out of it)**



BLIND SPOT:

**come from the lateral, its normally @ temporal visual field
...Scotoma?**

PUPILLARY REFLEX:

shine light into pupil:

watch: what is the OTHER pupil doing?

Should also constrict

SWINGING LAMP SIGN:

Move light to contra pupil:

**the ipsi pupil will then DILATE after the light has
moved away from it.**

This is an AFFERENT PUPILLARY DEFECT

(eye with reduced acuity will dilate abnormally)

ACCOMODATION:

Near and far focussing

NORMAL ACCOMODATION BUT NO LIGHT REFLEX? = Syphilis pupil

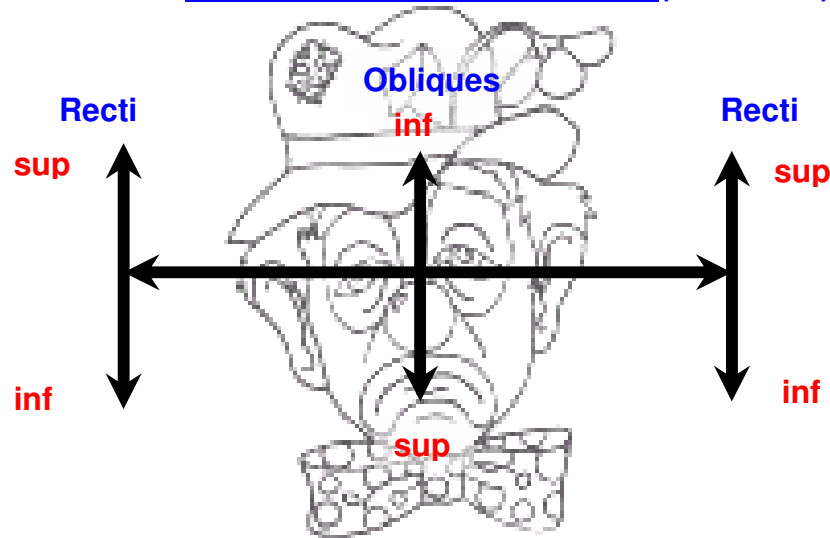
OCULOMOTOR, TROCHLEAR, ABDUCENT

PTOSIS? Oculomotor = opens eyelid;

CONSTRICTED PUPIL? Sympathetic (Horners) dysfunction

DILATED PUPIL? Oculomotor dysfunction

TEST CARDINAL DIRECTIONS (LR 6 SO 4)



DIPLOPIA? = weakness of a muscle;
OUTERMOST IMAGE IS FALSE

NYSTAGMUS? = jerky or pendular
PENDULAR = retinopathy or congenital
Jerky:

↔ = vestibular, cerebellar, toxic (INO@MLF)
Upbeat ↑ = midbrain or floor of 4th
Downbeat ↓ = foramen magnum

CONVERGENCE

Move finger → patients nose

Supranuclear palsy:

loss of vertical, horizontal or both

Both eyes, fixed unequal pupils, no diplopia!

Progressive Supranuclear palsy:

loss of first vertical, then horizontal gaze

+ monotonous speech

+ dementia

Parinaud's syndrome:

Loss of vertical gaze

Nystagmus on convergence

Pseudosyphilitic pupil: no light response but accommodating fine

TRIGEMINAL

CORNEAL REFLEX: expect both eyes to blink

If only contra eye blinks = ipsi 7th palsy

If touch is still felt, trigeminal nerve is intact

FACIAL SENSATION: forehead, cheek, chin

Total loss = preganglionic, eg. acoustic neuroma

Dissociated = brainstem issue

MASSETERS: clench teeth

ABNORMAL MOVEMENTS

Jaw tremor? = Parkinsons

Repetitive chewing? = Tardive Dyskinesia

Tetanus clench

JAW JERK REFLEX

Open mouth

Strike lower chin

Normally: NO REFLEX

EXAGGERATED = UMNL or pseudobulbar palsy

FACIAL

LOOK : Facial asymmetry?

Unilateral droop?

Wrinkle smoothing?

Loss of NASOLABIAL FOLD?

MUSCLE POWER:

Wrinkle forehead; try to smooth out

Test facial expressions:

- SURPRISE
- GRIN
- SNARL
- POUT
- PUFF
- SQUINT

TASTE @ Ant 2/3rds

ACOUSTIC

LOOK @ EAR

Pull pinna

Pain = Otitis externa or TMJ disease

FEEL FOR NODES

OTOSCOPE THE DRUMS

TEST HEARING: 256 Hz fork:

Rinne's Test:

Put struck fork @ mastoid:

When you cant hear anymore:

Put fork in front of ear.

SHOULD BE ABLE TO HEAR IT AGAIN

If not = conductive loss

Weber's Test:

Put struck fork on centre of glabella

Should hear it all @ centre of head

NERVE-DEAF = better @ Normal ear

CONDUCTION-DEAF = better @ Clogged ear

VESTIBULAR

HALLPIKE'S TEST FOR VERTIGO:

Asit patient up in bed

Grab patients head and smooch it into the bed to ~ 30 degrees below horizontal

At the same time turn patients head towards yours with eyes open.

+ve test: LOOK FOR

NYSTAGMUS

VERTIGO

For 15 sec, then- not reproduceable

= benign positional vertigo

IF REPRODUCABLE = cerebellar or brainstem problem

GLOSSOPHARYNGEAL and VAGUS

OPEN MOUTH AND SAY "AAAH"

Uvula gets pulled to NORMAL side

GAG REFLEX (9th sensory, 10th motor)

Ask if they can feel it;

Feel it but don't gag = vagus issue

No sensation or gag = glossopharyngeal problem

SPEECH: Hoarse?

= unilateral recurrent laryngeal palsy

COUGH: bovine?

= Bilateral recurrent laryngeal lesion

TASTE @ posterior 1/3rd

ACCESSORY

SHRUG versus resistance

TURN HEAD versus resistance

Unilateral = something wrong @ jugular foramen

Bilateral = motor neurone disease

HYPOGLOSSAL

POKE OUT YER TONGUE

Wasting? Fasciculations?

TONGUE WILL DEVIATE TOWARDS LESION

Unilateral UMNL = no deviation

Bilateral UMNL = small immobile tongue

Bilateral LMNL = dysarthria

BULBAR PALSY: LMNL of 9th, 10th, 12th
wasted tongue,
no gag reflex,
nasal speech,
limb fasciculations

PSEUDOBULBAR PALSY : UMNL of 9th, 10th, 12th
=spastic tongue, exaggerated jaw jerk reflex,
dysarthria, upper limb UMNL

SENSORY AND MOTOR SYSTEMS

General template:

LOOK :

- **scars**
- **wasting**
- **fasciculations**
- **tremor**
- **symmetry**
- **abnormal movements**

FEEL MUSCLE BULK

TONE

POWER

REFLEXES

COORDINATION

Lower = GAIT

Upper = Fine Functions

PAIN with needle

Temperature with ice cube

Vibration with tuning fork @ bony prominences

Proprioception with eyes closed

Light Touch with cotton bud

UPPER LIMB MOTOR

Shake hands;

Cant relax grip = myoclonus

Fasciculations? Wasting?

CLOSE EYES, HOLD OUT BOTH HANDS WITH PALMS UP:

Drift UP = cerebellum

Drift DOWN = UMNL

Searching drift = pseudoathetosis,
= proprioception loss

TONE

POWER

REFLEXES:

Biceps, Triceps, brachioradialis

COORDINATION

Close eyes, touch own nose

Open eyes, touch my finger

DYSDIADOCHOKINESIS

LOWER LIMB MOTOR

GAIT:

1. Walk normally
2. Walk heel-to-toe = cerebellum
3. Walk on toes = S1-S2
4. Walk on heels = L4, L5
5. Romberg's test

Fasciculations?

Wasting? LOOK AT THE QUADS

TONE

POWER

REFLEXES:

Knee jerk, Achilles tendon,
Babinsky (Normal = scrunch)

COORDINATION

touch my finger with your toe

foot tapping

Heel along shin

CEREBELLUM

INTRODUCE SELF, ASK PATIENT HOW THEY FEEL:
Mr. Cerebello will reply EXPLOSIVELY + MONOSYLLABICALLY

Stand the patient up.

GAIT:

walk back and forth,
walk heel-to-toe
Cerebello will stagger → affected side

CLOSE EYES + STAND WITH FEET TOGETHER
(Romberg's test)

Cerebello will sway + collapse

OPEN EYES, FOLD ARMS

Swaying = truncal ataxia

SIT DOWN, PUT ARMS OUT + HOLD

Cerebello will OSCILLATE

CLOSE EYES, PUT ARMS OUT

Cerebello will OVERSHOOT (rebound)

CLOSE EYES, TOUCH NOSE

Cerebello will MISS HIS NOSE

OPEN EYES, TOUCH MY FINGER

Cerebello will have an INTENTION TREMOR

PRONATE + SUPINATE HAND, QUICKLY

Cerebello will have DYSDIADOCHOKINESIS

NYSTAGMUS

Cerebello will have
JERKY HORIZONTAL NYSTAGMUS

SIT ON EDGE OF BED, SWING LEG LIKE PENDULUM

Cerebello's leg WILL NOT STOP SWINGING

LIE DOWN, RUN HEEL ALONG ANT. TIBIA

Cerebello WILL NOT BE ABLE TO DO THIS PROPERLY

TOUCH MY FINGER WITH YOUR BIG TOE

Cerebello will have an INTENTION TREMOR

STANDING

SITTING

SUPINE