

# Cranial nerve examination checklist (1.0)

## Wipper and vitals

### Olfactory nerve examination (Useless)

- Check the nasal passage
- Ask the patient to close his eyes
- Close one nostril to test the other
- Ask the patient to smell (Use scratch and sniff test cards from (UPSIT))
- Close the other nostril and repeat.

### Optic nerve examination

#### Inspection

- Comment on no head tilt
- Comment on no facial asymmetry
- Comment on no proptosis
- Comment on no lid retraction
- Do lid lag test, stand up and ask the patient to follow your finger, move it up and back, bottom and back. AND COMMENT ON NO LID LAG

#### Palpation

- Warm and clean hands, ask for any pain, ask the patient to close one eye at a time, and gently palpate eyeball for tenderness.
- Comment on no tenderness

#### Let's begin the test; start by mentioning these tests;

- "I will assess visual acuity using Snellen's chart"

- "I will assess color vision using Ishihara plates"
- "I will assess macular sparing using Amsler's grid"
- "I will do fundoscopy examination for things like optic disk examination, papilledema etc.."

### **Pupillary reflexes tests**

- I will dim the room and check the pupils' size for Anisocoria
- Ask the patient to fixate his eye on a distant point
- Get your torch, slide it horizontally to one eye, and notice "Direct" reflex, then slide it away and then to the eye again, while looking at the other eye notice "Indirect/consensual" reflex
- Comment on intact direct and indirect pupillary reflexes
- While patient is still fixating his eyes at that same distant point, put your finger ~ 15cm in front of him, and ask him to focus on it and notice "Convergence" and look for signs of accommodation.
- Comment on normal accommodation reflex

### **Visual field tests - Sit facing the patient 1 meter away.**

We'll start with homonymous visual field test and then sensory inattention, (Both eyes together)

- Ask the patient to look at your eyes.
- Hold 1 hand at its full extent, wiggle your fingers and ask if the patient was able to see the movement.
- Do that at 2, 4, 8 and 10 o'clock
- Comment no homonymous visual field defect.

### **Sensory inattention - This defect is rather related to the brain than to the eyes.**

- Ask the patient to look at your eyes.
- Hold both of your hands at their full extent, at 2 and 10 o'clock.
- Now begin by wiggling 1 hand at a time and ask if the patient was able to see them, the real test is when you wiggle both hands' fingers at the same time, a pt with sensory

inattention won't be able to notice both, as his brain will neglect one side.

- Comment no sensory inattention

During the 3 next tests, we test **one eye at a time**, we ask the pt to close an eye, and we close the other (Pt's right, Dr's left..)

### **Peripheral visual fields**

- 1 eye closing maneuver..
- Ask the patient to look at your eyes.
- Test each quadrant (2,4,8,10 o'clock) separately with 1 hand, point it at its full extent, if the patient saw it wiggling then move to the next quadrant, if not start moving it to the center until the patient detects the wiggling, we're always comparing our vision field with the patient's.
- Test the other eye!!
- Comment no peripheral visual field defects

### **Color desaturation**

- Show a red object to the patient and make sure he sees it red.
- 1 eye closing maneuver..
- Put it directly in front of his open eye at a comfortable distance, ask the patient to notice the object's color.
- Test the other eye!!
- Ask if the patient notices different levels of red on each eye, if not, comment "No red desaturation"

### **Central visual field**

- 1 eye closing maneuver..
- Ask the patient to look at your eyes.
- Start moving the red object from one side towards the center, ask the patient to tell you when he first notices its color and not only its movement, compare that with your own central vision.
- Test the other eye!!

- Comment no central visual field defects

### **Blind spot**

- 1 eye closing maneuver..
- Ask the patient to look at your eyes.
- Hold the red object at the center, and start moving it horizontally until it disappears from your visual field/pt's visual field, compare both of your blind spots
- Test the other eye!!
- Comment on normal blind spot size/no blind spots at all (If the object wasn't small enough, it might not disappear to either you or the patient.

### **Ocular movement nerves → 3rd, 4th and 6th**

- At the same position, ask the patient to fix his head and only move his eyeballs following your finger.
- Draw the H shape we learnt about, notice the eye movement of the patient
- Ask about any diplopia, and if present; its features
- Comment on no nystagmus, no diplopia or blurred vision, full range of motion

### **Trigeminal nerve;**

- 4 things; Sensory, motor, jaw and corneal reflexes.

- For the **sensory part**, get a cotton-wool tip, make sure patient can feel it on their sternum, and then start testing light touch sensation on areas of V1,V2 and V3, bilaterally
- Repeat using neural tip to test superficial pain
- Mention; testing general sensation on anterior 2/3 of the tongue
- Comment on intact symmetrical sensation

### **Motor**

- Palpate and inspect temporalis muscle for muscle wasting

- Ask the patient to clench their teeth and check masseters for muscle wasting and bulk
- Ask the patient to open their mouth and inspect for any jaw deviation
- Comment on no muscle wasting, good bulk and no deviation of jaw

### **Jaw reflex, Mentioning corneal reflex**

- Ask the patient to relax the jaw to let their mouth slightly open, place your forefinger between the lower lip and chin.
- Percuss the finger with a tendon hammer and notice any reflex closing the jaw
- Comment on normal jaw reflex
- Mention testing for corneal reflex

## **Facial nerve;**

3 things; motor, taste, corneal reflex

### **Motor part**

- Ask the patient to raise their eyebrows, assess symmetry (*frontalis*)
- Comment about symmetrical wrinkles
- Ask the patient to forcefully close their eyes **against resistance** (Orbicularis Oculi)
- Comment about normal power of orbicularis oculi
- Ask the patient to “*Blow out your cheeks and don’t let me deflate them*”
- Comment on normal power of buccinator and orbicularis oris muscles.
- Ask the patient to show his teeth, (Smile)
- Comment on symmetry and no mouth angle deviation.

### **Sensory part**

- Test for touch sensation behind the ear
- Mention testing for “Taste sensation” on the anterior 2/3 of the tongue.
- Mention corneal reflex**
- (Not mentioned), ask about any changes in hearing -*stapedius muscle*

## Vestibulocochlear nerve;

3 tests, same order as this; 1) **Whispered voice** test, 2) Weber's test 3) Rinne's test

- Stand behind the patient, make sure he can hear you normally first.
- Close the other ear; Whisper at 60 cm, ask the patient to repeat the words. (If he could, that's normal, now we skip to weber's, if not; go 15cm)
- Close the other ear; Whisper at 15 cm, ask the patient to repeat the words.

**Weber's test** (Positive test in x ear = pt hears louder on that ear compared to the other)

- Get your *512hz* fork out, TAP IT, and put it's base on the pt's forehead's midline.
- Ask the pt, "do you hear the sound the fork is making?", "is it louder in any ear?"
- Comment on negative weber's test. (No lateralization)

**Rinne's test** (Positive test in x ear = air conduction is louder than bone conduction (NORMAL))

- Get your *512hz* fork out, TAP IT, and put it's base on the mastoid prominence behind pt's ear
- Ask the patient to tell you once he stop hearing the sounds.
- Once he tells you this, place the vibrating ends of the fork near-in front of his ear, and ask if he now can hear the sounds.
- Comment on positive rinne's test. (Air conduction is better than bone conduction)

## Glossopharyngeal and Vagus nerves;

- Ask the patient to talk, and mention no dysphonia, no dysarthria
- Ask the patient to say aah, and check the uvula
- Mention no deviation of the uvula
- Ask the patient to puff his cheeks and close his lips, listen for any nasal regurgitation
- Comment on no nasal regurge heard
- Do these 3 maneuvers; cough, gag, swallow.

- Ask the patient to cough and mention that it's a normal cough, not weekend/bovine cough
- mention testing for gag reflex
- mention giving patient a cup of water to assess swallowing
- mention testing for "Taste sensation" in the posterior 1/3 of pt's tongue.

## **Accessory nerve;**

SternoCleidoMastoid and trapezius

- Inspect SCM and trapezius
- Comment about no muscle wasting, no asymmetry in trapezius
- Palpate both muscles to assess their bulk
- Comment on their normal bulk
- Test the power of Trapezius by asking the patient to shrug their shoulders while applying resistance
- Comment on normal power of trapezius muscle
- Test the power of each SCM by asking the patient (testing rt.=) to turn his head to the left, and apply resistance to his motion
- Do it for the other SCM
- Now test bilateral SCM by asking the patient to look down and apply resistance on his chin
- Comment on normal power of SCM!

## **Hypoglossal nerve;**

- Ask the patient to open his mouth, look at his tongue
- Comment on no wasting, no fasciculation or abnormal movements
- Ask the patient to put out their tongue, look at the tongue's deviation
- Comment on no deviation, fasciculation or abnormal movements
- Ask the patient to quickly move his tongue from side to side

- Comment on normal movement of tongue
- Ask the patient to press his tongue to the inside of each cheek, try to push it from the outside to assess power
- Comment on normal power
- Assess the patient's speech by asking him to say words like "Yellow lorry"
- Comment on normal speech
- Mention testing the pt's swallowing

:)