

# Neurophysiology

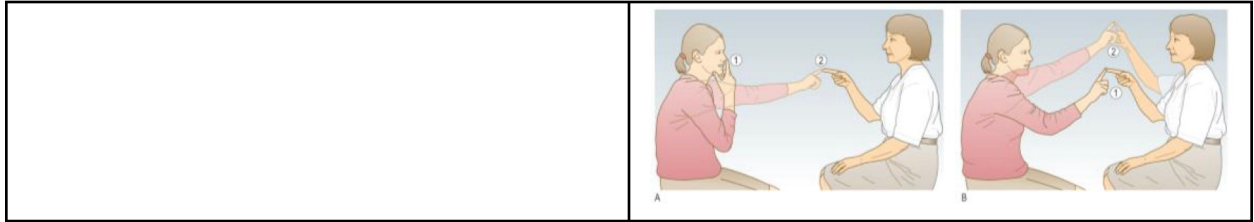
Dr. Huda Jabbar Albdery

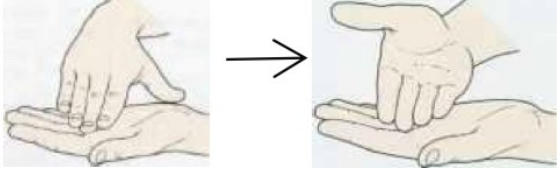
## Cerebellum Examination

**\* Start from up to down**

What to examine	How to do it
<b>1. Assess the eye movements</b>	
* Check for Nystagmus (Involuntary, rapid, repetitive eye movement)	Ask the patient to follow your finger with their eyes. Move your finger horizontally from one side to another. Finding : Jerky horizontal nystagmus
<b>2. Assess the speech</b>	
* Check for dysarthria (Difficult or unclear articulation of speech , irregular separation of syllables)	Ask the patient to read any sentences Finding : Slurred scanning speech ~> prolonged speech with pauses in wrong places
<b>3. Assess the Upper Limb</b>	
A. Assess the tone	Finding : Hypotonia A state of low muscle tone. Check the tone at the shoulder, elbow and wrist
B. Assess the coordination	
With finger nose test look for :  - <b>Dysmetria</b> : Inability to measure the distance for reaching specific target (overshooting or undershooting)  - <b>Intention tremor</b> : A tremor that increases as the target is approached.	(A) Ask the patient to touch the tip of her nose and then your finger.  (B) Move your finger from one position to another towards and away from the patient, as

well as from side to side.

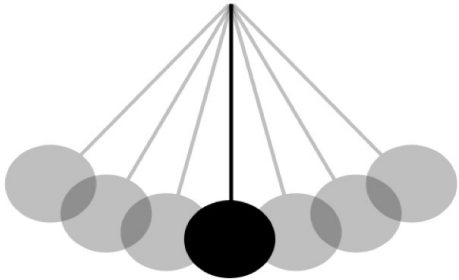


<p>With rapid alternating movement test look for :</p> <p><b>Dysdiadochokinesia</b> : inability to do alternate opposite movement rapidly. Eg. Supination and pronation</p>	<p>Ask the patient to tap alternately the palm and back of one hand on the other hand or thigh.</p> <ul style="list-style-type: none"> <li>* Make sure the patient takes full range of movement while doing the test.</li> <li>* The sound that the patient's hands make alone can help you detect any abnormalities.</li> </ul> 
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<p>With the rebound test look for :</p> <p><b>- Rebound phenomenon</b></p>	<p>Incoordination of antagonist and agonist action causes the patient to be unable to stop the arms.</p>
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**4. Assess the Lower limb**

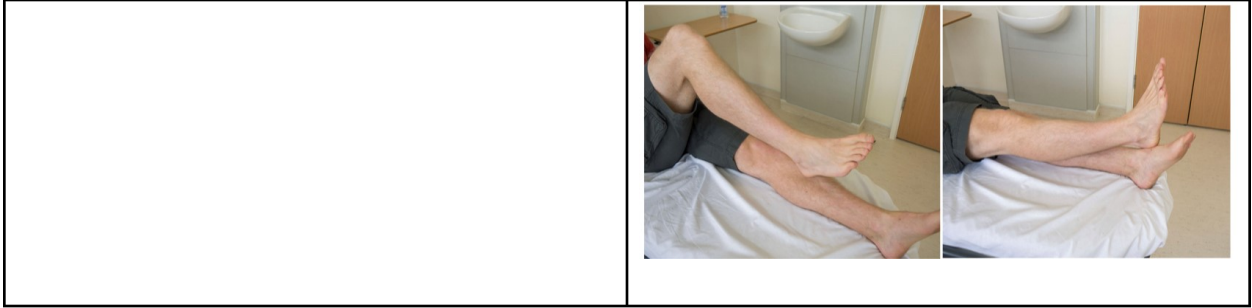
<p>A. Assess the tone</p>	<p>Finding : Hypotonia A state of low muscle tone.</p>
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<p>B. Assess the knee reflex</p>	<p>Finding : Pendular knee jerk. It is a sign of lower limb hypotonia.</p>  <p><b>Pendulum Swing</b></p>
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**C. Assess the coordination**

<p>Inability to perform the heel-shin test</p>	<p>Ask the patient while lying down to run the heel of</p>
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one foot over the shin of the other foot.



5. Assess the Gait	
A. Ataxic gait	Patient is unsteady while standing and staggering while walking
B. Heel-toe walking	Inability to walk heel to toe