

Reflex	How to assess	Video
<b>Primitive reflexes:</b>		
Palmar grasp (0 => 4-6m)	<p><b>Stimulus:</b> Give pressure on palm (ulnar side)</p> <p><b>Response:</b> Infant has to flex his fingers in a strong grip</p>	<p><a href="https://www.youtube.com/watch?v=6tPXGSxEkm0">https://www.youtube.com/watch?v=6tPXGSxEkm0</a></p> <p><a href="https://www.youtube.com/watch?v=TidY4XPnFUM">https://www.youtube.com/watch?v=TidY4XPnFUM</a></p>
Moro *startle reflex (0 => 2-4m)	<p><b>Stimulus:</b> Support head &amp; shoulders with hand, then allow head to drop back 20-30 degrees with respect to trunk</p> <p><b>Response:</b> Abd. Of upper extremities with ext. of elbows, wrists and fingers followed by adduction of arms at the shoulders &amp; flx. Of elbows</p>	<p><a href="https://www.youtube.com/watch?v=Dfnomzly01I">https://www.youtube.com/watch?v=Dfnomzly01I</a></p> <p><a href="https://www.youtube.com/watch?v=PTz-iVI2mf4">https://www.youtube.com/watch?v=PTz-iVI2mf4</a></p>
Asymmetrical Tonic Neck Reflex (ATNR) *fencer position (0-2 => 4-6m)	<p><b>Stimulus:</b> Active or passive lateral rotation of the head</p> <p><b>Response:</b> Upper and lower extremities on face side are extended while on the skull side they are flexed</p>	<p><a href="https://www.youtube.com/watch?v=0oI_yGQViXY">https://www.youtube.com/watch?v=0oI_yGQViXY</a></p> <p><a href="https://www.youtube.com/watch?v=ArhL_1Q9icg">https://www.youtube.com/watch?v=ArhL_1Q9icg</a></p>
Symmetrical Tonic Neck Reflex (STNR) *crawling reflex (4-6m => 8-12m)	<p><b>Stimulus:</b> Head flexed or extended</p> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>- <u>Head Ext:</u> UE Ext. &amp; LE Flx.</li> <li>- <u>Head Flx:</u> UE Flx &amp; LE Ext.</li> </ul>	<p><a href="https://www.youtube.com/watch?v=ohE_28kK6jc">https://www.youtube.com/watch?v=ohE_28kK6jc</a></p> <p><a href="https://www.youtube.com/watch?v=eH48tDd11bo">https://www.youtube.com/watch?v=eH48tDd11bo</a></p>
Tonic Labyrinthine Reflex (TLR) (0 => 6m)	<p><b>Stimulus:</b> Head position (Flx. or Ext.) and or body position (prone or supine)</p> <p><b>Response:</b></p> <ul style="list-style-type: none"> <li>- <u>Supine:</u> head Ext. =&gt; extremities Ext</li> <li>- <u>Prone:</u> head Flx. =&gt; extremities Flx.</li> </ul>	<p><a href="https://www.youtube.com/watch?v=vohBIAFh1eA">https://www.youtube.com/watch?v=vohBIAFh1eA</a></p>
Spinal Galant	<p><b>Stimulus:</b> Stroke along one side of spine</p> <p><b>Response:</b> Flx sideways toward stimulated side</p>	<p><a href="https://www.youtube.com/watch?v=-vBZesEaYYs">https://www.youtube.com/watch?v=-vBZesEaYYs</a></p>

**Postural reflexes (& onset):**

## Righting reactions

Optical (prone 1-2, supine 6, vertical 6-8)	<p><b>Stimulus:</b> child held in space in prone, supine, or vertical (additional for V is tilting the child to right or left)</p> <p><b>Response:</b> head rights to normal position: face vertical and mouth horizontal</p>	<p><a href="https://www.youtube.com/watch?v=nFdrp_p51zU">https://www.youtube.com/watch?v=nFdrp_p51zU</a></p> <p><a href="https://www.youtube.com/watch?v=Ttt1upF3nQY">https://www.youtube.com/watch?v=Ttt1upF3nQY</a></p>
Labyrinthine (2.5-6m)	<p><b>Stimulus:</b> Tilt child 30-40 degrees in lateral, anterior and posterior direction</p> <p><b>Response:</b> Alignment of the head to vertical with the mouth horizontal</p>	<p><a href="https://www.youtube.com/watch?v=Ttt1upF3nQY">https://www.youtube.com/watch?v=Ttt1upF3nQY</a></p>
Neck on body (at birth)	<p><b>Stimulus:</b> head is rotated to one side pictures</p> <p><b>Response:</b> child rolls either non- segmentally or segmentally in the same direction of the head</p>	
Body on body (7-12m)	<p><b>Stimulus:</b></p> <ul style="list-style-type: none"> <li>- <b>Supine:</b> Flx. Knee toward chest across the body</li> <li>- <b>Prone:</b> place hand under hip &amp; gently pushes back</li> </ul> <p><b>Response:</b> child rolls either non- segmentally or segmentally in the same direction of the head</p>	
Body on head (2m)	<p><b>Stimulus:</b> allow chest to contact the surface</p> <p><b>Response:</b> right head vertically by attempting to raise neck against gravity</p> <ul style="list-style-type: none"> <li>- <b>Partial response:</b> lift head 45 degrees and maintain position</li> <li>- <b>Full response:</b> lift head 90 degrees in and maintain position</li> </ul>	

## Equilibrium and protective reactions

Equilibrium	<p><b>Stimulus:</b> tilt board laterally</p> <p><b>Response:</b> righting of the head and trunk, Abd. And Ext. of UE and LE of the raised side, and protective reaction to the other side</p>	
Protective (parachute)	<p><b>Stimulus:</b> push gently either laterally, posteriorly or anteriorly</p> <p><b>Response:</b> protective extension of UE</p>	

**Emergence of equilibrium reactions on a developmental sequence:**

- Prone & Supine: 6 m
- Quadruped: 8 m
- Sitting: 10-12 m
- Standing: 15-18 m

**Emergence of protective reactions on a developmental sequence:**

- Anterior: 4 m
- Lateral 6-11 m
- Posterior: 9-12 m