

S.I.S. & R.

Sensory Integration Services and Research

The Motor Observations Manual

with regard to Sensory Integration Theory

**Twelfth Edition
© February 2010**

**Lynn J. Horowitz, MHS, OT
Master of Health Science, Occupational Therapist
Dr. W.R.A. Durkoop, Medical Sociologist**

**With illustrations by Cecile Röst, Physical Therapist
Graphic Consultant: Jaydee Williams-Ferguson**

15. ASYMMETRICAL TONIC NECK REACTIONS-LEFT

Place in position as needed

Starting position: The child is asked to go into quadrupedal position, imitating evaluator. Hands are directly under shoulders and knees are directly under hips. Ask the child or place the child's elbows in a slightly flexed position, with arms slightly endo-rotated so that hands are turned inward approximately 5 to 10 degrees. Feet are uncrossed. The child is looking downward at the mat between his hands.

Instructions: ***"I am going to turn your head."***

The examiner turns the child's head slowly to the left and holds it for 3 seconds. The child's nose should be parallel with his shoulder. Then the examiner turns the head back to midpoint, and waits one second. He then turns it to the right, holds it again for 3 seconds and turns it back to midpoint.

Do not turn the head further than the shoulder nor attempt to turn it through slight resistance. If the examiner feels resistance he makes a note of that and lets the child do the movement himself. If child cannot keep arms in slight flexion for the item the score is a 1.

Score ATNR left when the child's face is turned to the left.

ATNR can be influenced by habituation so only the first try counts for the score result.

Observe: Right/left differences.
 Hyperextension.
 Hip movements.
 Flexion in the fingers.
 Signs of tactile defensiveness.



Score:

5.No or minimal flexion (an extra 10 degrees more) of the occipital elbow or change of tone.

4.Obvious flexion of the occipital elbow or change of tone (10 to 30 degrees).

3.Flexion of the occipital elbow (30 to 60 degrees), some depression of the shoulder.

2.Flexion of the occipital elbow (60 degrees or more), obvious depression of the shoulder, no loss of balance.

1.Obvious loss of balance.

22. PRONE EXTENSION

Required pre-trial, extra instructions

Requirements: Mat, one sheet of paper and a stopwatch.

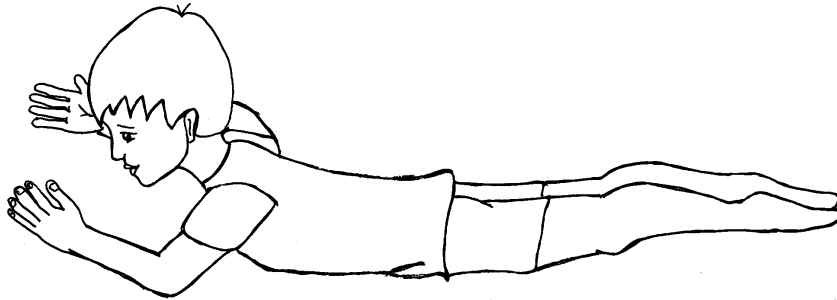
Starting position: Prone position on the mat.

This is a complex item. Follow 1 through 4.

1. Give instructions
2. Child assumes the correct position with or without help.
3. Let the child pause for ± 15 seconds
4. The child assumes the position bringing all portions of his body up together, while counts out loud, looking at the stopwatch.

Instructions: **"We are going to play airplane. Can you lie down on your stomach?"**

Ask the child to lift head, shoulders, arms and legs at the same time from the mat. Place child's elbows into 90 degrees flexion. Control that legs are in extension and that knees and shoulders do not touch the mat (slip a piece of paper under the thighs to check whether the child's position is correct). If necessary you can demonstrate and again place the child into the correct position. Give the child the possibility to rest and reassume the position. The child *counts aloud*, so that he cannot hold his breath. Note the number in seconds.



Observe: Asymmetry, increasing tonus in one side.
Motor planning problems.
Position of head, arms, legs, feet.
Adduction of the shoulder blades.
Breathing.
Amount of effort.

Score:

5. The child can assume the position and hold it for 60 seconds without difficulty.
4. Child holds the position with exertion between 30 and 60 seconds. Shows slight asymmetry.
3. Child holds the position less than 30 seconds. Can lift the head with exertion. Arms or legs are instable.
2. Child can lift head, arms and/or legs but not all together, with sometimes an overlapping moment, or: the arms are extended momentarily or the legs are flexed momentarily.
1. The child can lift head or arms or legs but not all together and there is no overlapping moment.

23. SUPINE FLEXION POSITION

Required pre-trial, extra verbal instructions

Requirements: Stopwatch.

Starting position: Supine position on the mat.

This is a complex item: follow the order very carefully.

1. Give instructions as you go.
2. Child assumes the correct position (with or without help). Trial is 2 seconds.
3. Child takes a +/- 5 second pause.
4. Child assumes the position for scoring: all portions coming up together while the child counts out loud to 20 seconds.
5. Child pauses +/- 10 seconds.
6. Child assumes position again, now with resistance from evaluator, while counting to 5 seconds.

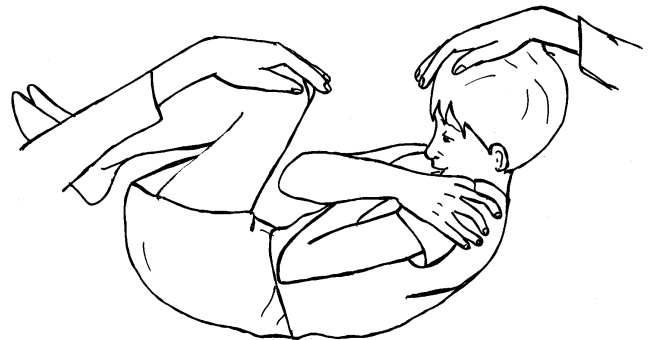
Instructions: **"You are going to make yourself a little ball."**

Ask the child to assume the following position, or place him in the position if necessary.

**"Cross your arms, place your hands on yours shoulders, bend your legs and lift your head and legs at the same time.
Try to come up as close as you can to your knees."**

Make sure that the child does not cross his feet. Child assumes position one time and then takes a rest, 2 seconds. Then child reassumes the position counting to 20. Pause is 10 seconds. Then he reassumes the position once again; the examiner provides resistance against head and knees for 5 seconds. Note number of seconds for first section.

Observe: Position of head, arms, legs, feet.
Asymmetry.
Motor planning.
Breathing, counting



Score:

5. The child can hold the position without resistance for 20 seconds, after that with resistance for 5 seconds.
4. Can hold the position without resistance for 20 seconds, but cannot hold the position against the resistance.
3. Can assume the position, but not hold it for the entire 20 seconds.
2. Cannot lift the head and/or has to hold the legs or crosses them.
1. Cannot assume the position.