

Modified Clinical Test of Sensory Interaction in Balance

This test allows for preliminary assessment of how well a patient can integrate various senses with respect to balance and compensate when one or more of those senses are compromised.

Sensory system involvement is modulated within various conditions as follows:

- Condition 1: Three sensory systems available for balance (vision, vestibular, somatosensory).
- Condition 2: Vestibular and somatosensory available. Vision absent.
- Condition 3: Vestibular and vision available. Somatosensory compromised.
- Condition 4: Vestibular available. Vision absent, somatosensory compromised.

Equipment/set-up: Two foam pads (dense enough to avoid bottoming out – recommend Airex) and a stopwatch required.

Starting Position: Patient stands with feet shoulder width apart and arms crossed over chest.

Protocol: A 30-second trial is timed using a stopwatch. Time is stopped during a trial and recorded if: a) patient deviates from initial crossed arm position, b) patient opens eyes during an “eyes closed” trial condition, or c) patient moves feet (takes a step) or requires manual assistance to prevent loss of balance. A trial is successful if the patient is capable of maintaining the starting position independently for a period of 30 seconds.

A maximum of three (3) trials are performed for all conditions. Trials are performed until the patient either: a) successfully maintains the starting position for an entire 30-seconds, or b) completes three, 30-second trials to the best of their ability.

Monitor subject for potential falling risk during entire trial. Stand near subject with one arm in front of and one arm behind (not touching) them. Instruct them that if they feel they are falling and unable to maintain their balance to open their eyes (if closed) and step off of the pad.

Scoring:

- Conditions 1 thru 4: Record the time (in seconds) the patient was able to maintain the starting position (maximum of 30 seconds). Remember to record the times for all trials.

Total Score = Ave Time Cond1 + Ave Time Cond2 + Ave Time Cond3 + Ave Time Cond4

Modified Clinical Test of Sensory Interaction in Balance Scoring Sheet

Subject Name:

Date:

Tester:

Proceed to next condition when one 30-second trial is completed or all 3 trials are performed.

- Condition 1: Eyes open, firm surface
 - Total time: ____/30 sec
 - Total time: ____/30 sec
 - Total time: ____/30 sec Mean score ____
- Condition 2: Eyes closed, firm surface
 - Total time: ____/30 sec
 - Total time: ____/30 sec
 - Total time: ____/30 sec Mean score ____
- Condition 3: Eyes open, foam surface
 - Total time: ____/30 sec
 - Total time: ____/30 sec
 - Total time: ____/30 sec Mean score ____
- Condition 4: Eyes closed, foam surface
 - Total time: ____/30 sec
 - Total time: ____/30 sec
 - Total time: ____/30 sec Mean Score ____

TOTAL SCORE: ____/120 sec (mean score used for each condition if > 1 trial is performed)