

APPENDIX

The Trunk Impairment Scale.

The attached version of the original scale has been approved for use in this thesis by the developer, Geert Verheyden.

TRUNK IMPAIRMENT SCALE

Starting position: The starting position for each item is the same. The patient is sitting on the edge of a bed or plinth without back or arm support. The thighs make full contact with the bed or plinth, the feet are hip width apart and are positioned flat on the floor. The angle of the knees is 90°. The arms are resting on the thighs. If there is hypertonia present, the position of the affected arm is counted as part of the starting position. The head and trunk are in a midline position.

If the patient falls or cannot maintain the starting position for 10 s without arm support, the total score for the TIS is 0.

Each item of the test may be performed three times. The highest score counts. No practise run is allowed. The patient may be corrected between trials.

The tests are explained verbally to the patient and may be demonstrated if necessary.

Static sitting balance	
1. Static sitting balance Patient falls or cannot maintain starting position for 10 secs without arm support Patient can maintain starting position for 10 secs <p style="text-align: right;">If score=0, then TIS total score=0</p>	0 2
2. Starting position. Therapist crosses the unaffected leg over the hemiplegic leg Patient falls or cannot maintain sitting position for 10 secs without arm support Patient can maintain sitting position for 10 secs	0 2
3. Starting position. Patient crosses the unaffected leg over the hemiplegic leg Patient falls Patient cannot cross legs without armsupport on bed or table Patient crosses legs but displaces trunk more that 10cm backwards or assists crossing with the hand Patient crosses the legs without trunk displacement or assistance <p style="text-align: right;">Total static sitting balance = /7</p>	0 1 2 3

Dynamic sitting balance	
1. Starting position Patient is instructed to touch the bed or table with the hemiplegic elbow by shortening the hemiplegic side and lengthening the unaffected side and return to the starting position Patient falls, needs support from an upper extremity or the elbow does not touch the bed or table Patient moves actively without help, elbow touches bed or table <p style="text-align: right;">If score 0, then items 2 and 3 score 0</p>	0 1
2. Repeat item 1 Patient demonstrates no or opposite shortening/ lengthening Patient demonstrates appropriate shortening/ lengthening <p style="text-align: right;">If score=0, then item 3 scores 0</p>	0 1
3. Repeat item 1 Patient compensates: possible compensations are (1)use of upper extremity, (2) contralateral hip abduction, (3) hip flexion (if elbow touches bed or table further than proximal half of femur), (4) knee flexion, (5) sliding of the feet. Patient moves without compensation	0 1
4. Starting position Patient is instructed to touch the bed or table with the unaffected elbow by shortening the unaffected and lengthening the hemiplegic side Patient falls, need support from an upper extremity or the elbow does not touch the bed or table Patient moves acitvely without help, elbow touches bed or table <p style="text-align: right;">If score=0, then items 5 and 6 score 0</p>	0 1
5. Repeat item 4 Patient demonstrates no or opposite shortening/ lengthening Patient demonstrates appropriate shortening/ lengthening <p style="text-align: right;">If score=0, then item 6 score 0</p>	0 1
6. Repeat item 4 Patient compensates: possible compensations are (1)use of upper extremity, (2) contralateral hip abduction, (3) hip flexion (if elbow touches bed or table further than proximal half of femur), (4) knee flexion, (5) sliding of the feet. Patient moves without compensation	0 1

TRUNK IMPAIRMENT SCALE

<p>7. Starting position Patient is instructed to lift pelvis from bed or table at hemiplegic side by shortening the hemiplegic side and lengthening the unaffected side, and return to the starting position Patient demonstrates no or opposite shortening/ lengthening Patient demonstrates appropriate shortening/ lengthening</p> <p style="text-align: right;">If score=0, then item 8 score 0</p>	0 1
<p>8. Repeat item 7 Patient compensates: possible compensations are (1) use of upper extremity, (2) pushing off with the ipsilateral foot (heel loses contact with the floor) Patient moves without compensation</p>	0 1
<p>9. Starting position Patient is instructed to lift pelvis from the bed or table at the unaffected side by shortening the unaffected side and lengthening the hemiplegic side and return to the starting position Patient demonstrates no or opposite shortening/ lengthening Patient demonstrates appropriate shortening/ lengthening</p> <p style="text-align: right;">If score=0, then item 10 score 0</p>	0 1
<p>10. Repeat item 9 Patient compensates: possible compensations are (1) use of upper extremity, (2) pushing off with the ipsilateral foot (heel loses contact with the floor) Patient moves without compensation</p>	0 1
Total dynamic sitting balance = /10	

Co-ordination	
<p>1. Starting position. Patient is instructed to rotate upper trunk 6 times (every shoulder should be moved forwards 3 times), first side that moves must be hemiplegic side: head should be fixed in starting position Hemiplegic side is not moved 3 times Rotation is asymmetrical Rotation is symmetrical</p> <p style="text-align: right;">If score = 0, then item 2 scores 0</p>	0 1 2
<p>2. Repeat item 1 within 6 secs Rotation is asymmetrical Rotation is symmetrical</p>	0 1
<p>3. Starting position. Patient is instructed to rotate lower trunk 6 times (each knee should be moved forward 3 times), first side that moves must be hemiplegic side, upper trunk should be fixed in starting position Hemiplegic side is not moved 3 times Rotation is asymmetrical Rotation is symmetrical</p> <p style="text-align: right;">If score = 0, then item 4 scores 0</p>	0 1 2
<p>4. Repeat item 3 within 6 secs Rotation is asymmetrical Rotation is symmetrical</p>	0 1
Total co-ordination = /6	
Total trunk impairment scale = /23	