SATCo
Segmental Assessment of Trunk Control
Clinical Workbook

Supporting Children
What is the SATCo?

The SATCo is a validated outcome measure that identifies at which head/trunk segment Targeted Training should commence. The SATCo determines the topmost (most cephalo) segment at which control of the upright posture is poor or not demonstrated i.e. is currently being learned for each of static, active and reactive control.

SATCo testing starts with head control and works systematically downwards testing each segment in turn until the child clearly cannot maintain any control/upright posture. The SATCo may reveal that static, active and reactive control are being learnt simultaneously at the same segmental level or at different segmental levels.

How to do the SATCo

A minimum of two testers will be needed: one to support the trunk and the other to monitor the child’s posture and hand/arm position and to give the nudges for the reactive component of the SATCo.

1. The child is placed in sitting on the Leckey Therapy bench, knees at 90 and feet supported.
2. If the child is under 18 months of age or has a strong extensor thrust, the feet are left free of support.
3. The child should wear only underwear or shorts. Shoes and AFOs can be worn.
4. The pelvic cradle with straps is positioned as shown to hold the pelvis in neutral.
5. The child’s head/trunk is supported manually in an upright posture by the therapist.
6. It is recommended that the SATCo is videoed.

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How is manual support given?

The therapist’s hands should encircle the trunk directly beneath the segment under test. This support should be horizontal with the aim of eliminating trunk movement below the tested segment. **Do not move ‘with the child’ the aim is to hold the segment steady in space.**

Firm manual support is given directly beneath the segment under test. When testing **head control**, the child’s arms should be supported at shoulder height either manually or on a table. For all other segments and full trunk testing, the arms/hands should be completely free and not contacting the bench, any part of the body or the assessors.

This ensures that it is the segments above the manual support alone that are controlling the child’s posture iii. Testing full trunk control is carried out with the child sitting on the SATCo bench but with SATCo straps removed and no manual support.

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Scoring the SATCo

Control is graded as present or absent: there is no ‘in-between’. It is assessed under three conditions at each segment:

**Static control** - maintain a neutral vertical head/trunk posture for 5 seconds.

**Active (anticipatory) control** - hold neutral vertical posture while turning head to 45o and/or reaching to both left and to right.

**Reactive control** - maintain or quickly return to neutral vertical posture when perturbed. A brisk nudge, sufficient to displace the child, is given at the top of the sternum, C7/T1 and laterally, both left and right [acromion]. These locations are consistent whichever segment is under test.

**Note:** reactive control is not tested at the head segment.


Application for SATCo

**SATCo testing process and identification of the targeted segment for Targeted Training**

An example of the testing process on one child: Testing Static Control

(Process repeated at each segment for Active and Reactive control)

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**Bibliography**


