

# Case History

## Miles



### Miles uses his Leckey Mygo Stander to maintain muscle length and strength

Miles is a seven year old boy from Vancouver, Canada, who has Spinal Muscle Atrophy (SMA). SMA is a degenerative condition that causes progressive muscle weakness. Miles was using a custom made, power, sit to stand wheelchair but was having difficulty standing in it comfortably.

Miles' dad saw the Mygo stander at the International Seating Symposium in Vancouver in March 2012 and approached our partners Otto Bock. Miles received his final Mygo stander fitting and provision in June 2012.

#### Clinical Background

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Miles' diagnosis means that he is increasingly losing muscle strength in his core (trunk) muscles and lower limbs. This causes muscle shortening at his hips (hip flexors), knees (hamstrings) and ankles (Achilles tendon). In turn this means that Miles' hips and knees want to stay bent, causing his lumbar spine to overextend (lordosis), and his bottom to stick out, leaving Miles in a crouched posture.

#### Goals for Standing

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- Maintain or improve range of movement at hips, knees and ankles
- Maintain or reduce lumbar lordosis
- Maintain or improve core muscle and lower limb strength
- Improve head control
- Increase opportunities for peer and social interaction
- Increase opportunities for improved academic performance

## Considerations for equipment

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Miles requires a stander which can accommodate his contractures without compromising his overall posture, and provide him with a standing posture that he can tolerate.

## Approach

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Miles tested the Mygo Stander in school for about a month before his final fitting and provision. The fitting was challenging due to the extent of Miles' knee contractures. The stander was set up in the supine configuration with the posterior support and pommel.



Although this accessory is typically used in the prone configuration, this was found to work best for Miles due to his tendency to crouch. He also benefitted from having the support on which to lean his arms.

The knee cups were rotated 180° which, because they are offset, raised them to the appropriate height.

We were able to move the knee cups forward to provide posterior support while the split knee straps provided perfectly placed anterior support above and below the patella.

## Outcome

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Miles has been using the stander since July 2012 with great success. Miles, who previously would protest against standing, asked to be placed into the Mygo stander and was happily tolerating standing in the Mygo Stander for at least 15-20 minutes.

Everyone on Miles' team was very pleased with the Mygo Stander and the service delivered by Ottobock and Leckey.

Leckey would like to thank Otto Bock Canada for their assistance with this Case History.

**ottobock.**

