

WHO DOES SPIO BENEFIT?

The SPIO™ system appears to be most beneficial for those children who exhibit a primary or secondary sensory deficit which is impairing dynamic stability, postural activation, and movement control. We have found SPIO™ to be most helpful for children with:

- moderate to severe hypotonia, particularly axial hypotonia,
- deficits in dynamic stabilization, tone fluctuations, and unpredictable movement control from dyskinesia,
- moderate-to-severe hypertonia that is compensatory for poor deep sensation,
- calming and organizing difficulties,
- whole body sensory awareness deficits
- sensory integration challenges

It is also typical to see improved respiratory function in children wearing a SPIO™, including decreased respiration rate, larger and more fluid ribcage expansion, improved rhythm of breathing, and an increased ability to independently cough. Most likely, abdominal compression improves the bio mechanics of the diaphragm resulting in these findings.

For the best outcome, great care must be exercised in the selection and utilization of SPIO™ for specific individuals. Testing the potential benefit of a SPIO™ can be done easily by using elastic wraps to acquire the motor response to increased deep pressure input.

CONTRAINDICATIONS AND POTENTIAL DIFFICULTIES USING SPIO

- Use caution when utilizing any compression orthosis with children who have cardiopulmonary impairments or ribcage restrictions.
- Children with neurological deficits are at greater risk for temperature regulation impairments and should be monitored carefully. Many children in warm environments have worn SPIO™ comfortably due to the increased breath-ability of the Lycra material. The back of the SPIO™ vest is fabricated from ventilated neoprene, which helps reduce sweating.
- Toileting can be an issue with some children. A SPIO™ system is worn over the diaper or undergarments and can pose a challenge for some children who are learning to toilet independently. To accommodate this, SPIO™ suggests pants or a vest. Vest size V54 and larger, are made with a removable crotch strap that can be undone from the front and/or back.
- Children with seizure disorders should be monitored carefully when utilizing SPIO™. If seizures increase with the use of SPIO™ compression, use of the SPIO™ should be discontinued.