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Article Overview:

Review evaluating evidence on physical and occupational therapy interventions used to improve sensory and motor outcomes for children 0-6 years with central hypotonia.

Key take home messages:

1. Interventions that have strongest support are: treadmill training and massage for infants with down syndrome (less strong/available evidence for other populations); orthoses on foot alignment for ambulatory children with hypotonia (less consistent evidence on impact on gait characteristics)
2. Use of massage (to improve muscle tone, use of vision and gross motor skills) and treadmill training (to accelerate onset of walking and improve gait parameters) for children with Down syndrome. → Treadmill training should be a standard of care for infants with Down syndrome.
3. Treadmill training ideally using speed of 0.33-0.67 miles per hour, starting at a lower speed and increasing as the child gains skills; starting at 10 months of age 8/12 minutes per day 5 days a week, increasing time as child progresses. → therapists to record progress using reliable outcome measures
4. Recommended training parents and caregivers on massage.
5. Mixed evidence on use of orthotic interventions. Foot orthoses should be used with caution for pre-ambulatory children. There are possible negative effects for use of orthoses with children who are not yet walking independently.