

Movement Requires Regulation

Pyramid Approach: Quick Clinical Assessment + Treatment Guide

Clinical rule: Identify where function/performance is breaking down, then assess the layers beneath it. Do not keep escalating the upper-level task if the child no longer has access to the underlying state, sensory, postural, or motor organization needed for success.

ASSESS + TREAT THE PYRAMID

Layer	Assess / Look For	Treat / Support
Cognition / Intellect Function + Participation	Following directions; attention; problem solving; carryover of learned motor skills; ADLs; play/sport; school participation; consistency across settings.	Grade task and cognitive complexity so success is possible. Practice meaningful functional tasks and build demand as posture, regulation, and motor organization allow.
Perceptual-Motor Development	Motor sequencing/praxis; visual-spatial demands; ocular-motor control; eye-hand coordination; task-specific motor planning; stairs; obstacle navigation.	Sequencing and praxis tasks; obstacle courses; stairs; visual-motor activities; task progression; graded repetition of functional motor tasks.
Sensory-Motor Development	Postural control; balance; bilateral coordination; body scheme; motor planning; reflex maturity; strength/endurance; gait/transitions; ability to screen input.	Postural/core stability; balance; gait; transitions; functional mobility; bilateral tasks. Pair movement with appropriate vestibular/proprioceptive input and adjust intensity to the child's response.
Sensory System	Response to touch, movement, sound, light, oral input, vestibular and proprioceptive input. Seeking vs. avoiding; hyper- vs. hypo-responsive patterns; functional impact.	Individualize sensory input: proprioception/deep pressure, pushing/pulling, weight-bearing, rhythmic or linear movement, environmental modification, pacing. Watch the response - input should organize, not simply stimulate.
Central Nervous System Foundation	Arousal/state; calm-alert vs. fight/flight vs. shutdown; state transitions; ability to settle; frustration tolerance; recovery after challenge; tolerance to handling; reflexive responses.	Co-regulation; pacing; predictable routines; environmental modification; slow/rhythmic handling or movement; manual therapies as appropriate; address reflexive patterns when clinically relevant. Reassess motor output after regulation changes.

READ THE CHILD, NOT JUST THE TASK

Possible dysregulation / access problem - Inconsistent motor output - Low threshold for fatigue - Avoidance or collapse under demand - Poor carryover of a skill the child has demonstrated - Performance worsens after certain sensory/motor demands	Ask yourself 1. Is this a true loss of motor capacity, or can the child not access the skill in this state? 2. What happened immediately before performance changed? 3. What input helped or worsened organization? 4. Does performance improve after pacing, sensory input, environmental change, or co-regulation?
--	---

APPLYING THE PYRAMID ACROSS PEDIATRIC PRACTICE

The same framework can be used from newborn feeding through school-age mobility.

Population	Assess examples	Treatment examples
Newborn / Feeding	State and ability to settle; breathing/color; tolerance to handling; sensory response; latch/lip seal; jaw/tongue movement; suck rhythm/endurance; head control, midline, symmetry, postural stability; visual fixation/tracking; feeding participation.	Containment, skin-to-skin, quiet/dim environment, slow handling, caregiver-paced feeding; oral-motor/non-nutritive sucking as indicated; gentle movement/position changes; tummy time, positioning, torticollis/postural work; coordinated suck-swallow-breathe and endurance.
Early Intervention	Arousal and recovery; transitions; novel environments; sensory responses during play; postural control, balance, bilateral coordination, endurance; body awareness, praxis and movement sequencing; play/self-care carryover.	Predictable routines and transition prep; pacing/rhythmic movement; vestibular/proprioceptive input; climbing, swinging, crashing as appropriate; balance/postural work; obstacle courses, imitation, sequencing and movement-based problem solving.
School Age	Self-regulation and frustration tolerance during challenge; sensory patterns across environments; postural control, strength, balance, coordination, gait and transitions; praxis, stairs, obstacles; ADLs, play/sport and school participation.	Co-regulation, pacing and environmental modification; movement-based arousal modulation; task-specific strength/balance/gait/power; sequencing, stairs, sport-specific skills; functional mobility and high-repetition practice.

PT + OT: COLLABORATIVE CLINICAL REASONING

OT lens Read and modulate state; sensory readiness; arousal/attention; engagement; adapt context.	PT lens Scale motor challenge; adjust intensity, complexity and assistance; target motor learning and functional mobility.
Together	Continuous communication -> shared interpretation of the child's response -> coordinated adjustments -> unified functional goals.

THE TAKE-HOME ALGORITHM

1. Observe function Where does performance break down?	2. Move down Assess the supporting pyramid layers.	3. Organize Provide the input/support the child needs.	4. Move back up Immediately practice the meaningful motor/functional task.	5. Reassess Did access, quality, endurance or participation change?
--	--	--	--	---

Bottom line: Movement is an output. When a child has demonstrated a skill but cannot consistently access it, consider state, sensory processing, postural/sensorimotor organization, and task demands before assuming the answer is simply more strengthening or more repetitions.

Based on: *Movement Requires Regulation: Why PT and OT Work Better Together* - Dr. Cheyenne Allen, PT, CBS & Jessica Jones, OT R/L, CBS, CPRCS. The Pyramid is presented as a clinical reasoning framework, not a strictly validated causal hierarchy.