

Motor Skill Development Seeing Beyond a Test Item

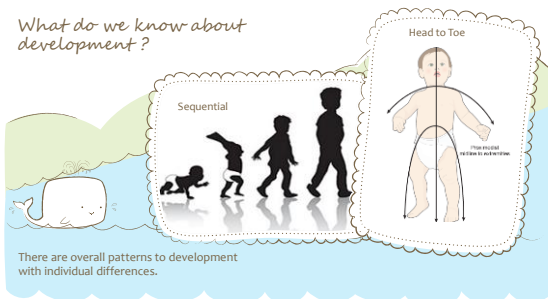


Presented by
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Today's Agenda

- Review of Motor Milestones
- Tools for Motor Development Evaluation and Assessment
- Task Analysis
- Information Gathering
- Interviews and Questions
- Observation
- Tricks of the Trade
- Applying Our Skills
- Developing Strategies

What do we know about development?



Gross Motor Development

Typical Development	Age	Red Flags
<ul style="list-style-type: none"> Wiggles arms and kicks legs Pushes up on arms Lifts and holds head up 	3 Months	<ul style="list-style-type: none"> Difficulty lifting head Stiff legs with little or no movement
<ul style="list-style-type: none"> Uses hands to support self in sit Rolls from back to tummy Accepts weight on legs in supported standing 	6 Months	<ul style="list-style-type: none"> Round back in sit, cannot lift head Arches back, stiffens legs when moved Arms held back
<ul style="list-style-type: none"> Sits & reaches for toys without falling Moves to and from tummy to sitting 	9 Months	<ul style="list-style-type: none"> Uses one hand much more than the other Rounded back in sit with poor use of arms Uses only one side of body to move or difficulty crawling
<ul style="list-style-type: none"> Pulls to stand & cruises furniture Stands alone Walks with assistance and may take several independent steps 	12 Months	<ul style="list-style-type: none"> Difficulty getting standing due to stiff legs and pointed toes Uses only arms to pull to standing Sits with weight to one side Arms stiffly bent or extended Needs to use hands to maintain sitting

Typical Development	Age	Red Flags
<ul style="list-style-type: none"> Walks independently Squats to pick up a toy 	15 Months	<ul style="list-style-type: none"> Unable to take steps without help Poor balance in standing Falls frequently Walks on toes
<ul style="list-style-type: none"> Pulls toy from behind while walking Carries large toy or several toys while walking Stands on tiptoes Begins to run Climbs onto/off furniture Walks up/down stairs holding support Jumps with both feet leaving floor 	2 Years	<ul style="list-style-type: none"> Cannot walk by 18 months Walks only on tiptoes Cannot push a wheeled toy
<ul style="list-style-type: none"> Walks on stairs without support Kicks a ball Throws a ball overhand Begins to stand on one foot 	3 Years	<ul style="list-style-type: none"> Unable to throw a ball overhand Cannot jump in place

Fine Motor Development

Typical Development	Age	Red Flags
Hands tightly flexed	1 Month	
Holds rattle briefly if placed in hand Opens hand 50% of time	2 Months	Thumb tucked into palm
Open hand most of time Bats at objects Holds object placed in hand	3 Months	Hands clenched tight or fisted most of time
Obtains and holds a rattle While on back, plays with hands	4 Months	
Transfers objects Immature rake of small object	5-6 Months	
Removes Peg Rakes pellet into palm	7 Months	
Inferior pincer grasp of small object Holds object with thumb and finger	8-9 months	

Typical Development	Age	Red Flags
Pokes with isolated index finger Demonstrates pincer grasp	10-11 Months	Persistence of primitive reflexes may indicate neuromotor disorder
Neat pincer grasp (uses fingertips) Makes mark with crayon Attempts a cube tower of two Drops and picks up toy	12 Months	Cannot release objects from hand Unable to bring hands together
Build tower of 2 cubes	14 Months	
Release pellet into small container Build tower of 3 cubes Imitates scribble	16 Months	Noted difference between right and left side of body
Build tower of 4 cubes Imitates single stroke Scribbles spontaneously	18-20 Months	Hand dominance prior to 18 months may indicate contralateral weakness

Typical Development	Age	Red Flags
Builds tower of 3-6 cubes Lines up cubes to build a train Imitates a vertical stroke Hold and drink from cup Self feed with minimal assistance	22-24 Months	
Turns single pages Imitates circular, vertical & horizontal stroke Eats without assistance Holds crayon with thumb and fingers Snips with scissors Strings large beads	2-3 Years	Unable to manipulate objects in his hands



Hand Grasp Development

Primitive Reflexes



- Asymmetric Tonic Neck Reflex
- Moro
- Symmetric Tonic Reflex
- Tonic Labyrinthine Reflex
- Plantar and Palmar Reflex
- Landau
- Stepping
- Positive Support Reflex

Postural Reactions

- Righting Reactions
- Protective Reactions
- Equilibrium Reactions

Influences on Motor Development

- Genetics
- Disease
- Internal Motivation
- "Containers"
- Back to sleep

Once Building Blocks are in Place, We Add in Function









*Tool to help us understand
Motor development*

Task Analysis

Task Analysis



Tricks of the trade

The 5 T's:
Trunk, Thumbs,
Toes, Tongue,
& Transitions



Tricks of the Trade

- Observe performance in many positions
- Note any physical changes noted during the task
- Know your assessment tool
- Take time to "mull it over"
- Listen to families

Observation : *Sit back and watch it unfold*

- Look at child in a variety of positions
- Observe during various activities
- Watch them participate in their favorite activities
- Problematic tasks also yield good information
- Film when possible



Assessment defined

"Assessment is defined as "the ongoing procedures used by qualified personnel to identify the child's unique strengths and needs and the services appropriate to meet those needs and includes the assessment of the child and the assessment of the child's family." A family-directed assessment is conducted to identify the resources, priorities, concerns and the supports, and services necessary to enhance the family's capacity to meet the needs of their child. Qualified personnel must use informed clinical opinion and multiple procedures when conducting evaluations and assessments. While a "child's medical or other records may be used to establish eligibility (if those records indicate that the child's level of functioning in one or more of the developmental areas constitutes a developmental delay or that the child otherwise meets the criteria for an infant or toddler with a disability)", an assessment still must be conducted.

Taken from ecta center

Evaluation Defined

Evaluation is defined as the procedures used by appropriate qualified personnel to determine a child's initial and continuing eligibility, consistent with the state definition of infants and toddlers with disabilities.

Taken from ecta center

Assessment

- Review all of your findings
- Share findings
- Develop the plan for intervention with logical outcomes

Now you possess all the necessary ingredients to develop a plan

Develop The Plan

- Review your findings obtained from the following:
 - Task analysis
 - Observation notes
 - Review of videotape
 - Professional judgement
 - Tricks of the trade
 - Interview
 - Review of history and medical documentation





Tying it all together

- Describe movement using new skills
- Assessment is just one piece of information that drives your intervention
- Embed activity into daily routines
- Consider the environment
- Establish functional outcomes
- Incorporate handling techniques
- Modify activities for success... just enough challenge
- Use crosswalks
- Link test items to overall development



Intervention Strategies



Do Try These at Home!

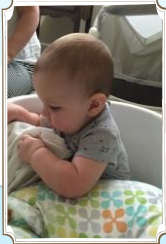
Prone activities



Rolling



Sitting
and
Getting To
Sit



Creeping and crawling



Climbing



Transfers,
clapping



Strengthening