Meeting Developmental Milestones:
Role of Occupational, Speech and Physical Therapy

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Overview
Agenda

• What are speech, physical, and occupational therapies?
• What is Early Intervention?
• Speech and Language Development
• Motor Development
• Play Development
• Resources
Who is a Speech-Language Pathologist?

• A licensed professional who addresses families’ concerns about their infants or toddlers who are at risk for or have impairments in:
  – Communication
  – Language
  – Speech
  – Emergent literacy
  – Feeding/swallowing
Who is a Physical Therapist?

• A licensed professional who assesses, facilitates, and monitors gross motor development in children beginning at birth
Gross Motor vs. Fine Motor Skills

• Gross Motor
  – Skills integrating strength, balance, and coordination of one or more body segments
    • Moving head from side to side to follow a toy
    • Reaching for a toy in a sitting position
  – Mobility skills
    • Moving from one place to another (ie. rolling, crawling, scooting, walking, running, climbing at the playground)

• Fine Motor
  – Coordination and control of small movements of the hands and fingers
Who is an Occupational Therapist?

- A licensed professional who supports and promotes the development of and engagement in everyday routines
  - Play
  - Rest
  - Sleep
  - Activities of daily living
  - Education
  - Social participation
What is Early Intervention?

• **Family-centered services** that support development and promote participation within a child’s **natural environment**

• Services based on highest quality evidence available

• Services include physical therapy, speech-language therapy, occupational therapy, developmental therapy, and social work services, among others
What Do Early Intervention Providers Do?

• Provide screenings/evaluations/assessments
• Implement/monitor interventions
• Facilitate the achievement of developmental milestones
• Collaborate with families, caregivers, and Early Intervention team members
• Consult with all team members
• Provide education and prevention strategies
Speech & Language Development
Speech and Language Development (Newborn - 3 months)

- Startles to loud sounds
- Quiets or smiles when spoken to
- Seems to recognize your voice
- Increases or decreases sucking behavior in response to sound
- Makes pleasure sounds (cooing)
- Cries differently for different needs
- Smiles when he sees you

Red flags: No sounds (cooing)/quiet baby; doesn’t react to you
Speech and Language Development (4-6 months)

- Moves eyes in direction of sound
- Responds to changes in your voice
- Notices toys that make sounds
- Pays attention to music
- Babbling sounds (more speech-like); many different sounds including “p, b, m”
- Vocalizes excitement and displeasure
- Makes gurgling sounds when left alone and when playing with you

Red flags: Quiet baby—no sounds; no eye contact with you; no attention to voice or music
Speech and Language Development (7-12 months)

- Enjoys games and peek-a-boo
- Turns and looks in direction of sounds
- Listens when spoken to
- Recognizes words for common items like “cup”, “shoe”, or “juice”
- Begins to respond to requests (“Come here,” “Want more?”)
- Babbling has both long and short groups of sounds such as “tata upup bibibi”
- Uses speech or non-crying sounds to get and keep attention
- Imitates different speech sounds
- Has one or two words (bye-bye, dada, mama,) although they may not be clear
- Uses communicative gestures such as pointing and pulling

Red flags: Quiet baby—few vocalizations; no sound play or babbling, pointing or gesturing by 12 months; only vowels in vocalizations; does not respond to voice or sounds
Speech and Language Development (12-15 months)

• Maintains attention to pictures
• Understands simple directions especially with vocal or physical cues
• Uses one or more words with meaning

• Red Flags: No communicative gestures such as pointing or pulling; vocalizations with only vowels; no imitative skills; no response to name
Speech and Language Development (15-18 months)

- Says more words each month; vocabulary of 5-20 words
- Vocabulary composed mainly of nouns
- Much jargon-like speech
- Able to follow simple commands without cues ("Get your bear")

- Red Flags: No single words by 16 months; no imitative skills; limited consonants in speech; no response to directions with cues
Speech and Language Development
(18-21 months)

• Points to a few body parts when named
• Follows simple commands and understands simple questions ("Roll the ball," "Where’s your shoe?")
• Listens to simple stories, songs, and rhymes
• Points to pictures in a book when named
• Uses many different consonant sounds at beginning of words
• Expressive vocabulary of 25-50 words

• Red flags: Limited variety of consonants; vowel distortions; few words; limited imitative skills
Speech and Language Development (20-24 months)

• Uses some 1-2 word questions (“What’s that?”, “Daddy?”, “Bye bye?”)
• Puts two words together (“more cookie”, “no juice”, “Mommy book”)
• Language explosion around 18-24 months; vocabulary of 150-300 words by 24 months

• Red flags: Limited spoken vocabulary; limited variety of consonants; distortions of vowels or sounds; little response to name, directions, and questions
Speech and Language Development (24-36 months)

• Hears you when you call from another room
• Answers simple “who?”, “what?”, “where?”, “why?” questions
• Talks about activities at school or friend’s home
• People outside family usually understand child’s speech
• Uses a lot of sentences that have four or more words

• Red flags: Unintelligible speech; limited vocabulary; short utterances (only 1-2 words); limited consonants; little response to questions or directions
Language Strategies

- Use specific language to communicate expectations
  - (i.e. Do not say “stay over here,” say “play trucks on the carpet.”)
- Label how kids are feeling
  - (i.e. “It’s safe when you play trucks on the carpet. That makes me feel happy.”)
- Use positive reinforcement to encourage expected behaviors
  - (i.e. “I LIKE how you are keeping your truck on the carpet.”)
- Use verbal directions paired with gesture
  - (i.e. Point to the direction of the carpet and say “bring your truck back to the carpet.”)
- Get **face to face** to make sure the child knows you are communicating with him
  - (Interactive activity)
- Use transitioning language
  - **First, Then** statement
    - (i.e. “First wash hands, then snack.”)
  - Use consistent language or activities to start and end routines
    - (i.e. Wash hands before snack, sing the clean up song after each activity)
  - Give warnings
    - (i.e. “Two more minutes, then we have to clean up.”)
Gross Motor Development
Gross Motor Development

• Birth-3 months:
  – Midline orientation
  – Lifts head in prone or stomach lying
  – Begins to kick reciprocally

• 4-6 months:
  – Forearm weight bearing in prone
  – Reaches in prone
  – Moves actively against gravity (feet to hands/mouth)
  – Rolls in both directions
  – Sits more independently
Gross Motor Development

• 7-9 months:
  – Crawls
  – Pulls to stand
  – Cruises along furniture
  – Uses a variety of movements

• 10-12 months:
  – Crawls over obstacles
  – Climbs up and down stairs (hands and knees)
  – Transitions between many positions
  – Begins to walk (wide base of support, high guard arms)
Gross Motor Development

• 12-18 months:
  – Develops early walking skills
  – Begins to walk up and down the stairs
  – Ball skills emerge (throwing, kicking, catching)
  – Running emerges

• 18-24 months:
  – Refines already acquired skills
  – Jumping skills emerge
Gross Motor Development

- 24-36 months:
  - Walks up the stairs using an alternating pattern with or without support
  - Jumps over obstacles and down from elevated surfaces
  - Ball skills continue maturing
  - Higher level balance skills emerge
  - Alternates movement speed
  - Negotiates obstacles in path
  - Completes 2-3 step obstacle courses
  - Demonstrates significant variability in movement patterns
Motor Development Red Flags

- No midline orientation
- High or low tone
  - Extremely “stiff” or extremely “floppy”
- Difficulty dissociating body segments
  - Moving as a unit versus segmentally
- Asymmetrical movement patterns
  - One side dominates at all times
- Decreased balance and stability
  - Falls often in all positions
- No movement variety
- Poor quality of movement
  - Movements within and between positions should be smooth, fluid, and efficient
Influencing Factors

• Factors that may influence gross motor development:
  – Cognition
  – Visual impairments
  – Hypertonia or hypotonia
  – Decreased strength
  – Poor balance
  – Low body awareness or sensory integration issues
  – Decreased motor planning abilities
  – Environmental factors
  – Social factors
Gross Motor Strategies

• Encourage floor time
  – The American Academy of Pediatrics recommends children spend 50% of their awake time on the floor
  – Avoid positioning devices
  – Alternatives to tummy time

• Facilitate all developmental milestones

• Balance safety and learning

• Provide exposure and opportunities for practice across a variety of contexts
Play Development
Birth to 6 Months

Toys to explore:
- YOU!
- Colorful Rattles
- Board or Fabric Books
- Textured Toys
- Babe-Safe Mirror

- Be sure to clean toys regularly
- Offer many chances for tummy time
- Gently lift feet up over his/her body
- Allow opportunities to mouth objects
6-12 Months

Toys to explore:
- Rattles
- Musical Instruments
- Busy-Boxes
- Blocks
- Simple Puzzles with Knobs
- Push/Pull Toys
- Shape Sorters
- Finger Plays

- Use toys that encourage repetition
- Provide just enough support to help him/her learn
- Repeat fun activities
- Read books together
- Demonstrate how to combine objects in play
- “Translate” baby sounds into words
12-24 Months

Toys to explore:
- Blocks
- Containers
- Shape Sorters
- Busy Boxes
- Chunky Wooden Puzzles
- Musical Instruments
- Art Activities
- Dolls, Stuffed Animals, Puppets
- Balls
- Tunnel

- Allow independent exploration and then show new ways to use toy
- Foster early social skills
- Model language to use with peers
- Ask one step requests
- Offer “free play” time
24-36 Months

- Dolls, Stuffed Animals
- Accessories – Baby Blanket, Bottle for Doll, Toy Pots/Pans, etc.
- Toy Cars, Bus, Train with Little People, Animals
- Blocks
- Puzzles
- Crayons/Markers
- Play Doh

- Model pretend play
- Introduce the area
- Observe children’s play
- Participate as a supporting character
- Help children enter play
- Turn clean up into a sorting game
- Make two step requests
- Read books and incorporate motor actions
Sensory Strategies

• Turn down lights for calming
• Use music for transitions
• Sing songs
• Have sensory tables
• Incorporate movement breaks
• Give “responsibilities”
• Decrease visual distractions
Environmental Strategies

• Create stations
• Use visuals
• Designate a corner in the room with cushions and quiet activities (i.e. books)
  – Use calm down corner instead of time out; pair this with language (i.e. “Your body is feeling excited, your body needs a break.”)
Community Resources

- Early Intervention
- Utilize library or park district for books, story time groups, free or affordable classes
- Utilize community parks and recreation centers to build variability in gross motor play
Resources

- http://www.wiu.edu/ProviderConnections/
- http://www.aota.org (occupational therapy)
- http://www.asha.org (speech language pathology)
- http://www.apta.org (physical therapy)
- http://www.zerotothree.org
- http://www.dhs.state.il.us
QUESTIONS?
TOGETHER, WE’RE BETTER.