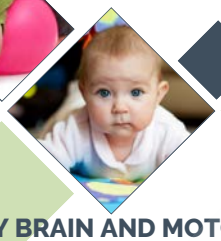
Physical Development & Movement Experiences Series

Session - I



EARLY BRAIN AND MOTOR DEVELOPMENT THROUGH MOVEMENT

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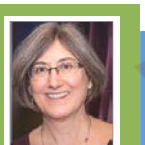
Our presenter



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The Source for Learning – ECE Initiatives

Today's Objectives

EXAMINE
Examine the connection between brain development and movement activities for young children.

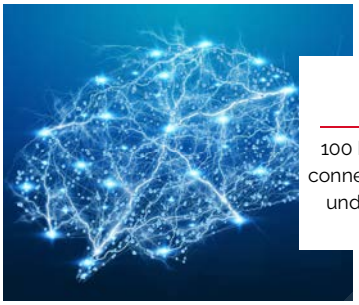
CONSIDER
Consider young children's perception about movement.

EXPLORE
Explore developmentally appropriate guidelines for movement activities.

UNDERSTAND
Understand the progression of movement activities.

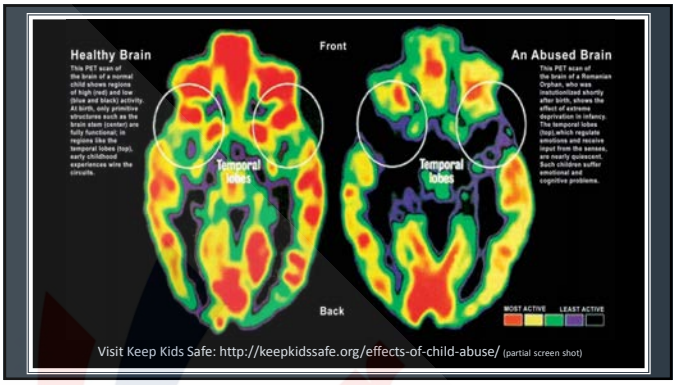
Positive early experiences forge the foundations for lifelong learning and behavior.

Rich environments produce rich brains.



Brain Wiring

100 billion neurons intricately connected, making possible the underlying human behavior.



Main circuits may be prewired, but there are other tentative "unprogrammed" connections. These are dependent on stimulation from the environment.

Mature Brains

To achieve a mature brain, stimulation of movement and sensory experiences are necessary.

Critical periods, "**WINDOWS OF OPPORTUNITY**" which help forge connections in brain development have been identified.

Movement Experiences

Are critical to optimal brain development and should be introduced early during windows of opportunity.

Motor Skills

Enhance our lives at all ages and lay the foundation for a positive attitude, habitual physical activity and a lifetime of good health.

Movement to a Young Child

Life

Self-discovery

Environmental Discovery

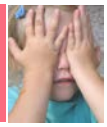
Both physical and social.

Freedom

Both special and self-expressive.

Movement to a Young Child

Safety



Communication

Enjoyment and Sensuous Pleasure

Acceptance

Where do we go from here?

Children learn in a developmental sequence.

Recommendations

- Provide children with lots of sensory-motor experiences, especially of the visual-motor variety.
- Include a variety of basic gross-motor activities that involve postural control, coordination of movements, and locomotion – crawling, creeping, body rolling, and jumping.

INFANTS

Guidelines

INTERACTION & EXPLORATION

Infants should interact with parents and/or caregivers in daily physical activities that are dedicated to promoting the exploration of their environment.

DO NOT RESTRICT MOVEMENT

Infants should be placed in safe settings that facilitate physical activity and do not restrict movement for prolonged periods of time.

PROMOTE MOTOR SKILLS

Infants' physical activity should promote the development of movement skills.

INFANTS Guidelines

ROOM TO MOVE
Infants should have an environment that meets or exceeds recommended safety standards for performing large muscle activities.

BE AWARE
Individuals responsible for the well being of infants should be aware of the importance of physical activity and facilitate the child's movement skills.

TODDLERS Guidelines

STRUCTURED PHYSICAL ACTIVITY
Toddlers should accumulate at least 30 minutes daily of structured physical activity.

UNSTRUCTURED PHYSICAL ACTIVITY
Toddlers should engage in at least 60 minutes and up to several hours of daily, unstructured physical activity and should not be sedentary for more than 60 min. at a time except when sleeping.

DEVELOP MOVEMENT SKILLS
Toddlers should develop movement skills that are building blocks for more complex movement tasks.

TODDLERS Guidelines

ROOM TO MOVE
Toddlers should have indoor and outdoor areas that meet or exceed recommended safety standards for performing large muscle activities.

BE AWARE
Individuals responsible for the well-being of toddlers should be aware of the importance of physical activity and facilitate the child's movement skills.

PRESCHOOLERS Guidelines

STRUCTURED PHYSICAL ACTIVITY
Preschoolers should accumulate at least 60 minutes daily of structured physical activity.

UNSTRUCTURED PHYSICAL ACTIVITY
Preschoolers should engage in at least 60 minutes and up to several hours of daily, unstructured physical activity and should not be sedentary for more than 60 min. at a time unless sleeping.

DEVELOP MOVEMENT SKILLS
Preschoolers should develop competence in movement skills that are building blocks for more complex movement tasks.

PRESCHOOLERS Guidelines

ROOM TO MOVE
Preschoolers should have indoor and outdoor areas that meet or exceed recommended safety standards for performing large muscle activities.

BE AWARE
Individuals responsible for the well-being of preschoolers should be aware of the importance of physical activity and facilitate the child's movement skills.

Children develop in different stages of progression.

- Visual
- Figure-ground Perception
- Kinesthetic Acuity
- Auditory Awareness
- Perceptual Motor
- Range of Movement

Visual

This has implications in the environment for children. Other ways that children develop that should be taken into consideration such as Visual. Visually most children can perceive spatial orientation of objects by age eight.

Figure-Ground Perception

Other ways that children develop that should be taken into consideration such as figure-ground perception which improves rapidly between ages 4-8.

Kinesthetic Acuity

Movement awareness (kinesthetic acuity) is the ability of the body to detect differences or match qualities such as location, distance, weight, force, speed, and acceleration. This reaches adult levels by age eight.

Auditory Awareness

Hearing or auditory awareness and the abilty to identify auditory sounds continues and improves significantly by ages 8-10.

Perceptual Motor

Perceptual motor development is the ability of the body to perceive stimuli from various senses and then translate the information into motor activity. This is also called inter-sensory integration.

Range of Movement

Children develop in different stages in progression. Range of movement (vestibular apparatus) function is the ability of the hearing system to provide information to the brain about the movements of the head. Thus the ears are important.

Range of Movement

Must offer a full range of opportunities for children to use their bodies in different positions in space. Including:

- being static on equipment
- able to move in different ways (upside down, sideways, backwards)
- able to move different body parts, able to move at different speeds.

NEXT webinar

Facilitating Movement to Promote Motor Development

Tuesday, February 13, 2018
1:30-2:30 PM Eastern Time

Resources

SHAPE America – Society of Health and Physical Educators®

health. moves. minds.

https://www.shapeamerica.org/

Resources

1. **Optimizing Early Brain and Motor Development Through Movement**
   Carl Gabbard, Ed.D., and Luis Rodrigues,
   http://www.earlychildhoodnews.com/earlychildhood/article_view.aspx?ArticleID=360
2. **The Significance of the Young Child's Motor Development**
   "The Young Child....What Movement Means to Him" Keturah E Whitehurst
3. **The Effects of Child Abuse on the Developing Brain**
   Keep Kids Safe, viewed November 28, 2017
   http://keepkidssafe.org/effects-of-child-abuse/
4. **From Playgrounds to Play/Learning Environments**
   Commonwealth of Virginia Department of Education, Fall 2003

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