This paper lists practices recommended by the Council for Exceptional Children's Division for Early Childhood concerning the promotion of motor skills in early intervention and early childhood special education programs for infants and young children with special needs and their families. An introductory section examines the importance of motor development as a component of early intervention programs. This section also discusses the child's use of sensory information in conjunction with movement, the incorporation of facilitation of quality movements into all daily routines, motor movements associated with materials or equipment, the importance of needs assessment, and the importance of considering family preferences. Thirteen recommended practices to promote motor skills are then listed. (JDD)
Interventions to Promote Motor Skills

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Long before birth, neonates are moving. The birth process is simply another stage in what might be viewed as a movement process. What becomes apparent when newborns are observed is the linkage between movement and learning. Head movements in search of a voice, hand movements to explore a bright toy and later, the full body movement of walking that opens the wonderful world of independence, are all ways in which motor development contributes to the foundation and acquisition of all learning.

When considering recommended practices for early intervention programs, motor development is essential. The field has a body of knowledge about interventions that have proven effective in facilitating the acquisition of motor skills. In these interventions, every caregiver is involved (e.g., in supporting the movements necessary for survival or in the perfection of skills for more effective and efficient movement). It is appropriate for caregivers to use this information in making decisions about motor skills that should be the focus of instruction at a given time and the techniques that are most appropriate for skill acquisition.

A key to quality movement is the child's ability to use sensory information in conjunction with movement. Visual feedback enables an infant to determine how near or far...
a toy might be from his or her grasp, leading to a cognitive question..."Do I reach with my hand or do I crawl to secure my truck?" The importance of vision to movement can be seen in observations of children who are blind and as a result, experience their world differently. Fraiberg (1977) recorded the development of motor milestones in a group of blind children and found significant delays, particularly in skills that required the infant to project his body into space. Folio (1974) reported on older blind children and noted delays continue in the more advanced projectile skills of running, hopping, jumping and skipping.

Appropriate intervention in motor development addresses all aspects of movement. This includes but is not limited to strength, physical and motor fitness, postural control, eye-hand coordination, object manipulation, positioning, mobility, adaptation, generalization, sensory motor integration and spatial awareness. Specific techniques for the instruction of these motor attributes can be found in motor curricula such as Fit for Me (Karnes, 1992), BodySkills (Werder & Bruininks, 1991) and the Peabody Developmental Motor Activity Cards (Folio & Fewell, 1983).

Given that movement is a constant body activity, it is appropriate that facilitation of quality movements be incorporated into all daily routines. For example, it is just as important to focus on walking while going to a table for a meal as it is when walking a straight line. Without the generalization of effective movement patterns to all situations, the teaching of these skills is of little value. Likewise, it is important that all family members concerned about a young child's development recognize the need to facilitate efficient motor skills and contribute to the development of these skills.

Motor movements are often associated with materials or equipment and used in all
environments. It is a good practice to look at how these variables influence skill acquisition and to incorporate strategies that enable one to manipulate these things to produce a positive impact on motor skill development. For each child, his or her motor abilities must be a primary consideration with each material, piece of equipment, or environmental arrangement or adaptation being used to the extent needed in order to encourage a child's control over the physical space.

It is expected that the motor intervention and/or therapy program will be based on assessed needs. These assessed needs must be stated in ways that are measurable so that the impact of the curricula can be determined. Additionally, curricular changes should be based on changes in the child's motor performance. Assessment of motor skills should be one aspect of a total program evaluation if the whole child and family is to be considered the focus of early intervention efforts.

Finally, it is important for a child's motor goals and the intervention program to reflect a family's preferences for their child. Intervention programs and families both have children's development as a major concern. When a program and a family can work together, sharing common goals, practices and responsibilities, a child has his or her best chance for acquiring the needed skills.

References


DEC Recommended Practices
Interventions to Promote Motor Skills

Motor intervention facilitates control of one's own body, including large and small muscle groups, in order to interact with and move within the environment. The assumptions underlying motor development interventions are that (a) motor development is a key component for the foundation and acquisition of all learning and (b) motor intervention is a necessary component for all children eligible for early intervention.

M1. Professionals base motor development interventions on theoretical constructs accepted by the field.
M2. All caregivers for individual children participate in the interventions that enhance motor development.
M3. All persons providing motor development interventions receive the necessary education and training for conducting the interventions.
M4. The intervention program establishes written criteria, standards, and guidelines for making decisions about the service format for motor interventions.
M5. Professionals facilitate movement skills in response to and coordinated with sensory input.
M6. Motor skills intervention addresses all components of motor development including but not limited to: strength, physical and motor fitness, postural control, eye-hand coordination, object manipulation, positioning, mobility, adaptation, generalization, parent education, technology, sensory motor integration, and spatial awareness.
M7. Professionals and/or caregivers implement motor skills interventions in the context of normal activities and routines (i.e., are activity-based).
M8. Professionals and/or caregivers adapt motor activities, materials, equipment, environments, and intervention strategies as needed to accommodate the abilities of individual children.
M9. Professionals and/or caregivers facilitate motor skills in a way that promotes use in multiple environments.
M10. Professionals provide children with methods for independent mobility.
M11. Professionals and/or caregivers position children in ways that facilitate appropriate social and instructional interactions (e.g., children sit at eye level with other seated children, movement and positioning are done efficiently so that children do not miss parts of activities).
M12. Professionals and/or caregivers change the position of children frequently for children who are unable to reposition themselves.
M13. Programming for all children includes opportunities for organized gross motor activity.