Motor Skills and Physical Activity in the Early Years

Toddlers and preschoolers are growing and developing very quickly. A big part of development in the early years is learning to move your body, which is referred to as motor skill development. Children use motor skills when they play and are physically active. Play and physical activity also offer opportunities for kids to work on their motor skills. In a study of healthy preschoolers, kids with the highest motor skills took part in more active play and spent less time being sedentary. Keep reading to learn about types of motor skills, new research and what happens when kids have trouble with motor skills.

Types of Motor Skills

Motor skills are often broken into two types:

1. Fine Motor Skills: Movements that involve the coordination of small muscles, like finger and hand skills. This includes tasks such as writing, tying shoes and using scissors.

2. Gross Motor Skills: Movements that involve the body's large muscle groups and move the whole body. Gross motor skills also include coordination skills like throwing and kicking.

Gross motor skills can be divided into three categories:

A. Locomotor: Skills that move the body from one place to another, such as running, skipping, hopping and leaping.

B. Object Control: Skills to control an object using part of the body or equipment. This includes sending (throwing, striking, kicking) and receiving (catching) balls, toys and other objects.

C. Stability: Skills that involve balance when staying still or moving. Stability is important in almost all gross movement skills. When kids try movements in new environments, like skating on ice or climbing a tree, they use stability.
Problems with Motor Skills

Some kids have problems learning and performing age-appropriate gross and fine motor skills, and they may appear "clumsy" or "awkward". These problems could be due to something called Developmental Coordination Disorder (DCD). DCD affects about 5-6% of school-age kids. Kids with DCD have normal or above average intellectual abilities.

When kids have trouble with motor skills, it's hard to take part in everyday activities, like learning to ride a bike, tying shoe laces or playing on the playground with friends. Kids with DCD don't outgrow their problems with motor skills. Pediatricians, physiotherapists, and occupational therapists can provide support to parents and children. These professionals will help your child learn skills and strategies to participate in everyday activities.

Taking part in active play benefits the health of all children. It's important to find activities and sports that suit your child's ability. Children should take part in activities they enjoy. Be sure to help your child become a confident mover by being active together and encouraging your child to try new activities.

Tips for parents and caregivers:
• Demonstrate motor skills so children can mimic actions.
• When enrolling your child in physical activity or sport programs, look for programs with trained instructors, low staff to child ratios and lots of time to practice new skills.
• Give feedback to kids when they are learning or improving motor skills.
• If a child is having trouble learning a skill, try to explain it a different way.
• Introduce your child to physical activities in different environments, like snow, ice, and water.
• If you notice your child is struggling to learn and retain motor skills, talk to your family doctor or pediatrician.

Four hundred preschoolers participated in our Health Outcomes and Physical activity in Preschoolers (HOPP) Study. One of the HOPP Study's PhD students, Sara King-Dowling, focuses her research on motor skills, physical activity, and fitness. She found that preschoolers with stronger motor skills are more active and more physically fit as they grow.

The Child Health & Exercise Medicine Program at McMaster University is working to advance child health through excellence in research.
To learn about our current studies, visit us online at fhs.mcmaster.ca/chemp

References

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