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# When Teaching the Whole Child, Remember Physical Fitness

by Rae Pica

When I tell the early childhood professionals in my audiences that teaching the whole child means addressing physical and motor development, as well as social, emotional, and cognitive development, I can see the panic in their eyes. How, they wonder, are they going to fit one more thing into the day? Do I expect them to be motor development specialists, on top of everything else they do? And don't motor skills just appear and take care of themselves?

The answer to the last question is: maturation takes care of only part of the process—the part that allows a child to execute most movement skills at an immature level.

What is meant by an immature level? This classification refers to a child who has not achieved a mature performance level for a given physical skill;

it would be a matter of form, coordination, and so on. This actually can happen with such basic motor skills as walking and running. For instance, you may have observed a child who

has not quite acquired the ability to move limbs in perfect opposition, or whose feet roll in, baby toes lifting off the ground.



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Photo by Bonnie Neugebauer

The truth is, thanks to the mistaken notion that children do not need help in this area, along with our society's sedentary lifestyles, a lot of children never achieve mature patterns for many motor skills. A number of studies, and teachers, are finding that today's children are unable to master basic movements. A 2012 British study, for example, determined that one-third of four and five-year-olds struggle with such fundamental movements as crawling and balancing on one foot (Clark, 2012). Research has also indicated that many of the skills that were once mastered by six-year-olds are now out of reach for numerous children at age 13 (McBride, 2017).

To those who consider motor skills to be of lesser value than, say, literacy and numeracy, this may not seem like a big deal. But the implications reach far beyond what can be covered here. Central to the theme of this issue, however, is the fact that the ability to perform motor skills is related directly to physical fitness. A competent mover will gladly keep moving. A child—or an adult (poor movement habits do track from childhood)—who feels physically awkward simply is going to avoid movement at all costs, and the health hazards of that are significant.

## The Link Between Physical Fitness and Motor Skills

Children who are less physically skillful tend to be less active than their skillful peers (Robinson et al., 2012). Conversely, the more skilled children are, the more willing they are to engage in active play. This means that, in early childhood, the development of motor skills goes hand in hand with physical fitness; we do not have to set aside time to concentrate on them separately.

Although I do not expect early childhood professionals to be experts in motor development, I do ask that children get the time, space, and opportunity to practice their motor skills—and that teachers demonstrate that physical activity is a priority. If all of this is in place, children should make progress in this area.

When children do not make progress, early childhood professionals need to take action. If they apply the same level of observation to motor skills as they do to other areas of the children's development, they will detect common errors, such as landing from a jump with knees straight or on the balls of the feet, or walking and running on tiptoe. They can then work with the child on an individual basis. If improvement still does not occur, it may be necessary to refer to the expertise of a professional, such as a physical education teacher or physical therapist. Although true motor delays are fairly rare, it is important to know that they do not go away on their own.

## What is Physical Fitness?

The President's Council on Physical Fitness and Sports (2000) defined physical fitness as:

*...the ability to perform daily tasks vigorously and alertly, with energy left over for enjoying leisure-time activities and meeting emergency demands. It is the ability to endure, to bear up, to withstand stress, to carry on in circumstances where an unfit person could not continue and is a major basis for good health and well-being.*

Fitness consists of two components: health-related fitness and skill-related fitness. The latter incorporates balance, agility, coordination, power, speed, and reaction time. However, it is the former that is relevant to young

children. It includes cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition.

## Cardiovascular Endurance

This is the ability of the heart and lungs to supply oxygen and nutrients to the muscles. Good cardiovascular endurance results when an individual exercises regularly. Typically, aerobic exercise improves cardiovascular fitness; but for children, we have to think of aerobics in a different way than we do for adults.

Developmentally appropriate aerobic activities for children include moderate- to vigorous-intensity play and movement, such as brisk walking, which somewhat increases the heart rate and breathing, or pretending to be an Olympic sprinter, which takes a lot more effort and results in a noticeable increase in breathing. Playing tag, marching, an energetic game of follow the leader, and dancing to up-tempo music are other forms of moderate to vigorous-intensity exercise for young children.

## Muscular Strength

Among other things, strong muscles prevent injury and help us maintain proper posture. As an added bonus, increasing muscle strength increases strength in tendons, ligaments, and bones.

Strength training—also known as resistance or weight training—is the best way to build muscular strength. For children, this does not mean working with weights and equipment, as their bodies are still growing. For them, the best strength training uses their own weight in physical activities they typically enjoy, like jumping and hopping, playing tug-of-war, and

pumping their legs to go higher on a swing.

## Muscular Endurance

Muscular endurance, which is related to stamina, is the muscles' ability to continue contracting over an extended period of time. A child, having less practice in most skills, tends to use maximum force and to contract more muscles than needed to perform a movement. Therefore, he cannot sustain an action as long as a skilled mover. Still, children's muscular endurance is important because it allows them to have more success with their daily activities. Muscular endurance is tied to muscular strength, so the activities cited above benefit both fitness factors.

## Flexibility

This fitness factor involves the range of motion around joints. People with good flexibility can bend and stretch without effort or pain, and they can take part in physical activities without fear of muscle strain, sprain, or spasm.

Most young children are flexible, but girls tend to be more flexible than boys. Boys who are inactive start to lose their flexibility at around age 10; inactive girls, at 12.

Activities such as pretending to climb a ladder, to reach for something on a high shelf, or to shoot a basketball through a hoop (for stretching), or pretending to tie shoes, pick flowers, or pet a cat (for bending)—as well as

hanging and swinging from monkey bars or raising and lowering a parachute—help increase flexibility.

## Body Composition

The final component of health-related fitness is the body's makeup in terms of the percentage of lean body tissue to fat.

Due to the childhood obesity crisis, a lot of attention has been focused on body weight. But weight alone is not a good indicator of fitness. For example, some children are simply large-boned and thus heavier than other children. Also, muscle is more dense than fat, so two children may have the same weight but very different body composition, one having muscle and very little fat and the other having too much fat.

Physical activity, particularly aerobic and muscle-strengthening activities, is the key to combating body fat.

## Fitting Fitness into the Day

There are a number of possibilities for incorporating physical fitness into the daily schedule. Circle times should always include some movement. And since children do well with "bouts" of physical activity, five to ten minutes will suffice, as long as this is not their only opportunity to move during the day.

If the children have been inactive for too long, a "brain break"—any kind of physical activity focusing on a fitness factor or providing a change of pace—is in order and requires only about five minutes. Possibilities include jogging lightly in place or around the periphery of the room, bending and stretching exercises (using imagery that is fun for the children), shaking the wiggles out, and making shapes (round, wide, narrow, long, short, crooked, etc.) with the body.

Transitions, which occur frequently during the day, involve moving from one activity or space to another, which



means they are perfect for promoting fitness. Improve children's flexibility by challenging them to move in a tall, straight shape or a crooked shape; by tiptoeing; or on three body parts. Enhance children's muscular strength, muscular endurance, and cardiovascular endurance by inviting them to jump, hop, or jog lightly. If you stimulate their imaginations, perhaps asking them to pretend to be rabbits or kangaroos, or to be in the Olympics, these kinds of activities have the additional benefit of guaranteeing that transitions are less chaotic, as the children will be fully engaged in meeting your challenges. Also, they are fun!

And, of course, it is in the outdoors that children have the greatest opportunity to execute large motor skills. It is essential, therefore, that you ensure the children have plenty of outdoor time. If you find there are those who are consistently less active outside, you can encourage them to move by playing with them.

Society as a whole may place less value on the body than it does on the brain, but we as early childhood professionals do not have to. It is our responsibility to educate the whole child. If we neglect children's physical development and fitness, they are in for a world of hurt—in both the present and the future.

Benjamin Bloom contended that 90 percent of a child's habits and attitudes are established by age 12. We in the early childhood field can play an enormous role in establishing good habits and attitudes around physical fitness.

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