Physical Activity and Childhood Obesity Prevention

EEC Regulations: 7.06.1b.5
(b) The licensee must have evidence of a plan describing how program activities support and engage children through specific learning experiences. Such plan must be appropriate to the ages and development of the children served, to the length of the program day and to the program objectives.

5. at least 60 minutes of physical activity in full-day programs;
1. in programs serving infants and toddlers, opportunities for infants and toddlers to move freely and achieve mastery of their bodies through self-initiated movement, including multiple opportunities to practice emerging skills in coordination, movement, balance and perceptual-motor integration.

Rationale for the Regulation:

Twelve percent of children aged 2 to 5 are considered obese, according to the Centers for Disease Control and Prevention, and 65 percent of overweight children have an additional heart disease risk factor, with problems of elevated cholesterol, elevated blood pressure and insulin problems. The main causes of childhood obesity are lack of physical activity, poor eating habits and/or genetics. Obesity develops when the energy intake exceeds expenditure from physical activity.

Meeting and Exceeding the Regulations

The National Association for Sport and Physical Education (NASPE, 2009) recommends that:

• Young children should not be sedentary for more than 60 minutes at a time, except when sleeping.
• Toddlers should accumulate at least 30 minutes a day of structured physical activity and at least 60 minutes a day of unstructured physical activity.
• While 60 minutes a day is the suggested minimum, it is further recommended that children accumulate “up to several hours” of physical activity daily.

The concept of “accumulation” means you don’t have to worry about setting aside huge blocks of exclusively devoted to physical activity. You can fit in bouts of physical activity throughout the day and still meet the national guidelines and contribute to the fight against obesity.

Encouraging Unstructured Physical Activity

Rae Pica, in “Fitting Physical Fitness into Every Day,” provides this information: Unstructured physical activity, which involves free choice on the part of the children, is typically best experienced outdoors, where the children can run and jump and expend energy. The outdoor setting provides the perfect opportunity to enhance the children’s physical development and physical fitness. Teachers and caregivers must become involved in children’s outdoor play, offer guidance and suggestions to extend the children’s play. An example: blowing bubbles for the children to catch encourages them to run and jump, contributing to both cardiovascular endurance and muscular strength and endurance.
Fitting Structured Physical Activity into the Day

Structured physical activity is organized and planned. It involves children in specific activities in which they’re expected to achieve certain results. Naturally, that makes structured physical activity more challenging to incorporate into the curriculum than unstructured movement.

It’s not unreasonable to expect that early childhood teachers will set aside a minimum of 30 minutes a day to focus on the acquisition and refinement of motor skills. Motor skills do not develop automatically from an immature to a mature level, so they must be taught and practiced just like any other skill in early childhood. Children who are comfortable and confident with their motor skills are more likely to be physically active throughout their lives. Some ideas are:

- Utilize substantial chunks of what is set aside for circle time.
- Take movement breaks throughout the day. These can incorporate moderate- to vigorous-intensity physical activity (like walking briskly or running in place, pretend to be in a track meet), thereby contributing to cardiovascular endurance.
- Include gentle stretching that promotes both relaxation and flexibility, an important component of health-related fitness.
- Incorporate structured physical activity into your transition times, which already involve moving from one place to another!

Infants and Tummy Time

Rae Pica in “Getting “Down & Dirty” with Baby” explains:

“Because babies are now spending so much time on their backs, many are experiencing “flat head syndrome,” weak arm, neck, shoulder and trunk muscles; and delays in developmental milestones like rolling over, crawling, pulling up to stand and walking. The estimated 60 waking hours a week babies are spending in <I>things</I> (what a colleague calls “containerized”) further exacerbate some of these problems.

Lack of upper torso strength could result in difficulties with gross (large-muscle) and fine (small-muscle) control. The former is needed for physical activity and athletics and the latter for such tasks as writing and keyboarding. Also, although babies do eventually master most or all developmental milestones, babies who don’t spend time on their tummies may spend less time crawling. This could mean difficulty crossing the midline of the body – the invisible, vertical line that runs from the head to the toes and divides the body into left and right sides. In some cases, children unable to cross the midline – and there seem to be more of them in schools every year – have problems with reading and writing.

Tummy time can:

- Have a positive effect on head shape.
- Induce an infant to attempt lifting her head and pushing up on her arms, strengthening the upper torso.
• Encourage crawling – a cross-lateral experience (the left arm and right leg move simultaneously and vice versa), so children who spend time practicing this motor skill generally have no problem crossing the body’s midline.

• Also, help development. Babies who spend time facedown tend to reach their motor milestones earlier than babies who don’t.

Working with Parents

In an interview with Rachel Tellez, Medical Advisor to the Head Start Bureau, she answered an important question: How can we help parents and staff understand that infancy is not too early to begin thinking about overweight and obesity issues?

Dr. Tellez: Start by reminding parents how much the baby moved during pregnancy. Even before birth as she grows and develops.

The importance of role modeling that staff and parents provide children cannot be underestimated. In other words, what the families and caregivers do, young children will imitate. Therefore, families who do not exercise regularly and are overweight are more likely to have young children who follow suit. The longer a child is overweight, the more health problems she’s likely to have later in life. Some of these health problems include asthma, bone and joint problems, childhood diabetes, high blood pressure and high cholesterol. Socially, as young children who are overweight grow older, they may get teased by their peers because of their weight. This can lead to low self-esteem in these children. Ideally, the younger a child with overweight problems is identified, the better her chances for a healthier life. (Interview with Dr. Rachel Tellez, Medical Advisor to the Head Start Bureau)

Movement and Exercise

| Pica, R. 2010. “Babies on the Move”. Young Children 65(4) pg 50 or go to www.naeyc.org/yc/columns |
| For books on playing games with babies, go to www.jackiesilberg.com/earlychildhood_books.html |
| For examples of activities and resources from Rae Pica go to www.movingandlearning.org |
| For discussion of current topics, go to www.bamradionetwork.com |
| For information on connecting literacy and physical activity go to www.alphabetfitness.org |
| For Michele Obama’s “Let’s Move” initiative, go to www.letsmove.gov |

Dental Health:

| Center for Disease Control: http://www.cdc.gov/oralhealth/topics/child.htm |

Resources (resources are being worked on...)

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Maternal Depression:
http://www.nccp.org/publications/pub_791.html;
http://www.aboutourkids.org/files/articles/jan_feb_1.pdf

Mental Health:
Lists of mental health providers and organizations: http://mentalhealth.about.com/cs/localandregional/l/blmassachusetts.htm
Mass Department of Mental Health: http://www.mass.gov/?pageID=eohhs2subtopic&L=4&L0=Home&L1=Consumer&L2=Behavioral+Health&L3=Mental+Health&sid=Eeohhs2

Nutrition:
www.keepkidshealthy.com/nutrition
pediatrics.about.com/od/nutrition/Nutrition_for_Children.htm