
FEATURE

Start early to prevent lingering *baby fat*

Ms. Ortiz, a toddler teacher, adjusts a plastic smock on 23-month-old Brandy. Then she gives the child a plastic jug with holes in the bottom.

“Let’s fill this jug with water,” she says.

Brandy presses the jug sideways into the water tub and gleefully watches the bubbling that arises.

After a couple of minutes, Ms. Ortiz asks: “Now, can you lift the jug out of the water?”

Brandy tries with one hand, then with two. Up comes the jug.

“Look,” says Ms. Ortiz. “You’re making it rain!”



With a few simple and fun activities like this, caregivers and teachers can help prevent a complex and serious condition in children—obesity. Engaging infants and toddlers in daily physical activity is one way to avoid an unhealthy weight that can plague them the rest of their lives.

What science tells us

Health care providers agree on the importance of addressing the obesity epidemic beginning in infancy, 0-3 years. More than one-fifth of 2- to 5-year-olds are over-

weight or obese, according to the Committee on Obesity Prevention Policies (2011). Current science holds that young children do not outgrow “baby fat.” Rather, this excess weight “can hinder movement and normal levels of activity and ultimately compromise later health and development.”

The early childhood years offer an opportune time for preventing obesity because lifelong habits develop while influences on

weight gain are still largely under the control of family and early care and education professionals (Committee on Obesity Prevention Policies 2011, Institute of Medicine 2016).

The Institute of Medicine has created obesity prevention recommendations related to five documented influences on weight gain:

- amount and quality of children’s nutrition (healthy foods



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versus high content sugar and fat foods),

- amount of sleep (inadequate sleep is linked to sedentary activities and weight gain),
- amount of screen time (watching TV, playing computer games, using DVDs),
- exposure to marketing (about food, DVDs and other media), and
- amount of daily physical activity (at home and while in child care).

With regard to the fifth item above, the Institute urges early care and education professionals to provide infants and toddlers with opportunities to be physically active throughout the day.

For infants:

- safe, supervised, and unfettered exploration of inviting indoor and outdoor environments,

- floor time with their fully engaged adult caregivers,
- tummy time for infants younger than 6 months old.

For toddlers:

- a combination of light, moderate, and vigorous activity for at least 15 minutes per hour the child is in care,
- daily play in developmentally appropriate indoor and outdoor environments,
- a balance of child-directed and teacher-directed physical activities,
- a range of physical challenges integrated into activities that also support development in other domains,
- accommodations for children of different physical abilities, and
- encouragement rather than punishment for physical activity.

The Nemours Foundation

(Hughes 2009) provides similar recommendations for infant and toddler physical activity, with noteworthy exceptions. For infants, the foundation's best practices guide specifies at least 30 minutes of tummy time a day, no more than 30 minutes a day in confining equipment (swings, bouncy chairs, stroller), and no screen time.

For toddlers, best practices specify 30 minutes a day of structured physical activities, at least 60 minutes and up to several hours of unstructured physical activity daily, and no more than 30 minutes in confining equipment while awake. The guide urges child care professionals to limit screen time to less than one hour a day for children 2 years and older and limit the sedentary behavior to no more than 60 minutes at a time, except when sleeping (Hughes 2009).

Finally, the benefits of physical activity for toddlers can accumulate throughout the day. Thus, caregivers can create multiple opportunities for physical activity throughout the day rather than dedicating large blocks of time once or twice a day to physical activity (Hughes 2009).

A recent study found that many early care and education professionals are aware of their responsibility to create opportunities for physical activity for infants and toddlers. Of the 203 professional surveyed, more than 75 percent agreed that teachers have this responsibility (Hesketh, van Sluijs, Blaine, Taveras, Gillman, and Benjamin Neelon 2015). In contrast, about 23 percent believed that their responsibility was limited.

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It may be that the latter group felt pressured to focus on other areas of the curriculum. With the current emphasis on cognitive development, for example, physical activity may not be of similar priority in all early care and education classrooms (Hesketh et al. 2015).

Although there is little published research on the physical activity of infants and toddlers existing studies show an unsettling trend: Infants and toddlers spend large parts of their day in sedentary activities (Cardon, Van Cauwenberghe, and De Bourdeaudhuij 2011).

One recent study found that, contrary to popular belief, toddlers, when given the opportunity, tended to select sedentary classroom activities (Fees, Fischer, Haar, and Crowe 2015). In an

observational study of the indoor free-play physical activity of 41 toddlers, researchers found that on average, the toddlers displayed little physical activity. They spent 58 percent of indoor play stationary, with some arm or leg movements (Fees et al. 2015). More specifically, in descending order of occurrence, the toddlers spent 84 percent of their free play standing, sitting or squatting, walking, and being carried by an adult (Fees et al. 2015). Similarly, in a 2010 study of 175 Dutch children, Gubbels and his associates found (as reported in Cardon et al. 2011) the 2- and 3-year-olds spent 59 percent of indoor play and 31 percent of outdoor play in sedentary activities.

What these studies show is that infants and toddlers are not automatically drawn to physical activ-

ity. They need caregivers to provide activities that not only promote physical activity but also encourage them to participate in those activities.

Here are physical activity ideas that early care and education professionals can use with the children in their care.

Unstructured physical activity ideas

This is just a brief sample of unstructured activity ideas. Refer to the Gunner, Atkinson, Nichols, and Eissa (2005) and Prosch (2013) references for additional ideas.

Infants

- Place infant on large, soft blanket to enable the child to roll, creep, crawl, and sit.
- Place toys on the blanket slightly out of reach to encourage reaching and stretching.
- Place infant close to a hanging mobile to encourage reaching and kicking.
- Provide a changing selection of appealing toys that invite active exploration, such as rattles, large blocks, cardboard boxes, pots, pans, and wooden spoons.
- Play music and provide items that an infant can bang to the music.

Toddlers

- Provide opportunities to climb and explore a variety of outdoor climbing structures.
- Offer spoons, small plastic shovels, and cups to dig in dirt or sand.
- Provide a variety of push and pull toys indoors and outdoors.
- Provide big outdoor spaces for running, jumping, and rolling

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- on the ground.
- Play a variety of music indoors and outdoors for dance and movement.
- Provide blocks in a variety of sizes to encourage lifting, carrying, stacking, filling, and dumping.
- Provide a variety of riding toys and smooth surfaces to ride on.

Structured physical activity ideas

Structured physical activities require the active participation of the adult as well as the child. The following activities are adapted from an online book produced by the Mississippi State University Early Childhood Institute (www.earlychildhood.msstate.edu/resources/motoractivities/pdfs/infant-toddler.pdf).

Infants

Providing physical activities for infants is often simple and fun. Talking with baby throughout the activity enhances language and social-emotional development.

Tickle, tickle game

To do this activity, the infant must be able to sit independently or be propped up securely on the floor.

1. Place the infant in a sitting position, securely propped with pillows if needed. The infant should be able to see his or her feet and you.
2. Sing or chant rhymes while playing with the infant's toes and feet. Be sure not to tickle so much that it becomes uncomfortable.

Wee wiggle, (wiggle pinky toe)
Two waggle, (wiggle next toe)
Three giggle, (wiggle next toe)

Four sniggle, (wiggle next toe)
Five tickle! (tickle big toe)

Infant obstacle course

This activity encourages crawling and walking.

Here's what you need:

A collection of large toys and other items, such as the following:

- something to crawl under, such as the sand/water table,
- something to crawl on, such as flat pillows,
- something to crawl around, such as a, riding toy, and
- something to crawl through, such as a tower of cloth blocks.

1. Set up the toys and items around the room.
2. Place the infant on the floor by one of the items.
3. Encourage the infant to move under, on, around, and through the items, one at a time.
4. Label the infant's movements, "You just crawled *around* the table!"
5. Applaud the infant's efforts, "Hooray for you!"

Variation: Change the toys and other items in the obstacle course to keep it fun and challenging.

Hold it tight

This activity promotes grasping with the hands. The infant can be sitting up or lying down.

Here's what you need:

- an array of toys that range from easy to more challenging to grasp. To avoid choking, choose toys too large to fit in the infant's mouth. Examples: plastic baby links, soft plastic animals, and soft toddler blocks.

1. Hold a toy in front of the infant's face. Move the toy to catch the infant's attention.
2. Touch the toy to the inside of the infant's hand. Help close the child's fingers around the toy. Take your hand away.
3. Soothe the infant when the toy drops and try again.
4. Place the toy in the infant's other hand and repeat the steps.

Reaching

This activity encourages reaching and stretching. Avoid frustrating the infant. After the child has stretched and reached for an object, hand it to the child.

Here's what you need:

- an array of appealing familiar and new toys that the infant can grasp. Examples: rattles, music makers, and plastic animals.

1. Hold the infant in your lap so the child can see the toy. Move the toy to catch the infant's attention.
2. Hold the toy just out of the infant's reach. Encourage the infant to reach and stretch: "See the little cow. Reach for it. That's it!" Hand the infant the toy.
3. Encourage the infant to reach for a toy with the other arm.

Toddlers

By age 2, most toddlers can walk and run well. Be aware of individual abilities and tailor movements to improve their physical skills.

In addition to fostering physical development, these activities offer opportunities to build vocabulary, express emotions, build relationships, and extend knowledge.

Toddler basketball

This activity encourages movement of both the upper and lower body.

Here's what you need:

- light plastic or foam balls, 12 inches in diameter
- large round plastic clothes basket

1. Place the basket in the center of an open space, away from breakables.
2. Help the toddler stand about a foot away from the basket.
3. Encourage the toddler to toss the ball into the basket.

Variation: Change the size of the ball and distance from basket according to the toddler's coordination.

Ball bop

This activity encourages movement of both the upper and lower body while the toddler learns the names of body parts.

Here's what you need:

- light plastic or foam balls varying in size from 3 to 12 inches in diameter

1. Place three to five balls on the floor close to the toddler.
2. Explain that you and the toddler are going to play a game with the balls.
3. Call out the names of body parts and touch them on your body. Examples: head, nose, ear, arm, hand, finger, leg, knee, and foot. Model how to touch a ball to your body part, as needed.
4. Guide the toddler by gently touching the ball to the toddler's body part, as needed.

Encourage the toddler to use a different ball for each body part.

Variation: Hold up pictures or simple line drawings of body parts as you call out the names.

Boom, boom, down

This activity encourages movement of both the upper and lower body as well as eye-hand coordination.

Here's what you need:

- soft, stackable foam blocks
- basket to hold the blocks

1. Place the basket of blocks in the center of an open space.
2. Select two blocks from the basket and stack one on top of the other. Encourage the toddler to stack a block on top of the two blocks. Work with the child to create a tower of at least four blocks.
3. Say, "One, two, BOOM, BOOM, DOWN!" On the word "down," knock over the blocks. Encourage the toddler to gather the fallen blocks and return them to the basket.
4. Repeat several times, letting the toddler knock over the blocks.

Color treasure hunt

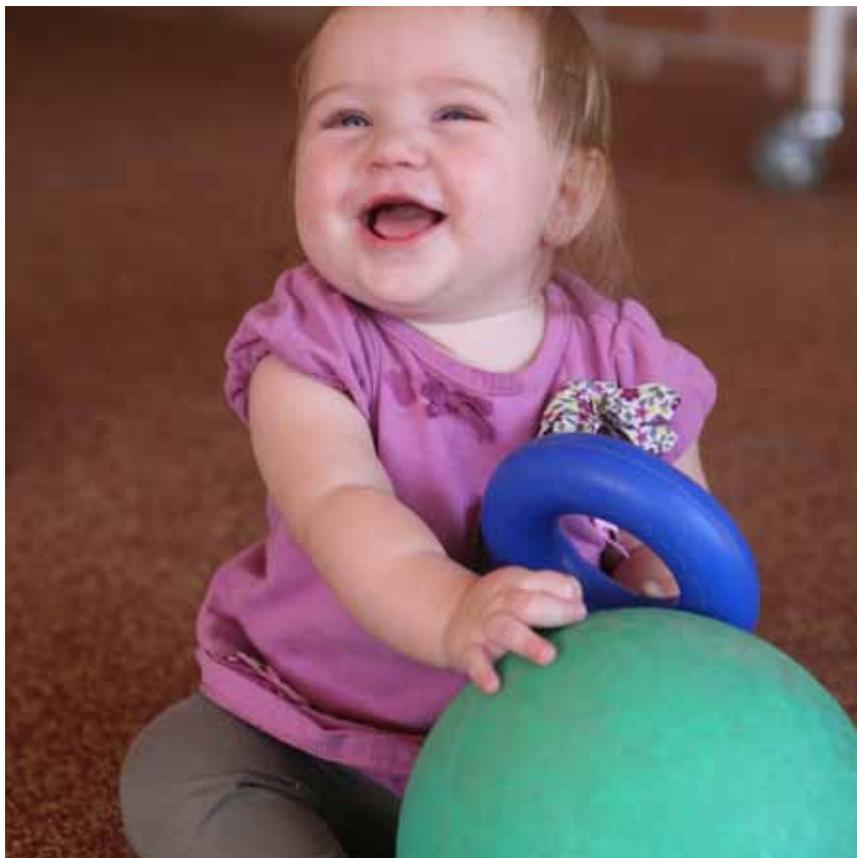
This activity exercises the lower body, the grip, and eye-hand coordination.

Here's what you need:

- a set of small, different colored toys the toddler can grasp. Examples: plastic blocks, colored eggs, and links
- a set of larger toys and objects that match the colors of the smaller set

1. Spread the large set of toys and objects around the room.

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2. Hand the toddler a small toy and label the color, "This egg is blue. Let's go on a treasure hunt and find something in the room that is blue."

3. Hold the toddler's hand and walk around the room. Stop at the larger toy of the same color. Help the toddler hold the small toy against the larger toy or object. "Hooray! We found the treasure! They are the same color. They are both blue."

4. Repeat with other colors as long as the toddler is interested.

Variation: Change the way you and toddler move around the room. You might gallop, shuffle, or jump, for example.

Frozen fun

You can offer this activity between bouts of moderate or vigorous physical activity. The toddler can sit or stand for this activity. A plastic smock can help the toddler stay dry.

Here's what you need:

- a selection of small colorful toys
- a plastic bowl large enough to hold the toys
- water
- a tub or water/sand table
- towels to place under table

1. Place the small toys in the bowl and fill with water. Place the bowl in the freezer.

2. After the toys are frozen, fill the tub or water/sand table with about 3 inches of warm water. Ease the ice from the bowl into the tub.

3. Encourage the toddler to explore the melting ice. Point out the toys. Add warm water as needed to keep the temperature in the tub comfortable.

Variations: Add food coloring to the bowl of water before freezing. Do this activity outside during the summer.

Rainmaker

This activity develops arm and hand strength as well as hand-eye coordination. A plastic smock can help the toddler stay dry.

Here's what you need:

- a tub or sand/water table
- half-gallon plastic milk jug
- metal skewer or scissors
- towels to place under the table

1. Punch several holes in the bottom and sides of the milk jug, using the metal skewer or one blade of the scissors. Fill the tub or sand/water table with about 3 inches of cool water.

2. Show the toddler how to fill the jug with water and lift it out of the tub. Talk about what the toddler is doing, "Look! You are making it rain!"

3. Encourage the toddler to take big or small scoops of water. Refill the tub with water as needed.

Variations: To encourage greater physical activity, do this activity outside on a warm day. Allow the toddler to make it rain on his or her body, plants, and trees. Provide a variety of plastic rain containers.

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