



# Shape Up America!

Healthy Weight for Life

## LESS SCREEN TIME...MORE SUNSHINE

By Barbara J. Moore, PhD

Many adults remember spending long hours after school, on weekends, and during the summer playing outdoors, mostly in unstructured and unsupervised play. But today, children are spending 25% less time engaged in outdoor play than their parents' did.<sup>1</sup> Dramatic increases in screen time and other factors have contributed to this decrease in active play, yet play is critically important for child health, especially unstructured play in the great outdoors.<sup>2,3</sup> Many opportunities for play are not “child-driven” but are structured games and sports in which some children are active while others sit “on the bench”. Children are often “over scheduled” leaving little time for free play. And the environment in which many children live does not offer free and safe opportunities for outdoor play. Yet play is considered so important for optimal child development that it has been identified by the United Nations High Commission for Human Rights as a right of every child.<sup>4</sup>

The physical, psychological, social, and emotional benefits of play have been well documented.<sup>5,6,7,8</sup> Unstructured play and physical activity promote healthy brain development<sup>9</sup> as well as the development of imagination and creativity.<sup>10,11</sup> Active play with friends develops important social skills such as conflict resolution and negotiating skills, and fosters constructive group interaction and cooperation.<sup>12,13,14</sup> Play can stimulate curiosity and develop skills of self-regulation.<sup>15</sup> Too often children are glued to screens: TV, computer, video games, and cell phones rather than playing. There are shorter periods of both indoor and outdoor play at home as well as at school. Schools are decreasing the time for recess and physical education<sup>2,16</sup> in part due to curricular changes resulting from No Child Left Behind mandates.<sup>2,17</sup> Even kindergarten children have decreased time for free play.<sup>2</sup> Yet there is evidence that the strategic placement of recess, which offers a physical release, can actually help children focus and support cognitive function.<sup>18</sup>

Young children engage in greater amounts of physical activity, and at a higher intensity level, when they are allowed to play outdoors.<sup>19</sup> For each additional hour of time outdoors, children engage in over 20 minutes of moderate-to-vigorous physical activity.<sup>20</sup> Outdoor play, especially when children make up their own games, provides an opportunity to exercise imagination and decrease “nature-deficit disorder.”<sup>21</sup> Whether our goal is to prevent childhood obesity or promote personal and social development of children, less screen time and more physical activity and unstructured outdoor play are crucial.

The relationship between screen viewing and physical activity is difficult to study especially since some children may turn off the TV or computer to read a book instead of actively play. One study of 2 to 6 year olds used state-of-the-art techniques to quantify fat gain associated with TV viewing.<sup>22</sup> The researchers measured total daily energy expenditure using doubly labeled water and body fat using dual-energy X-ray absorptiometry and physical activity using accelerometry. This exceptionally well designed study showed that each extra hour a child spent watching TV was associated with an increase of about 1 kilogram (2.2 pounds) in body fatness.<sup>22</sup>

Obesity and low aerobic fitness are now considered common among American youth and data are emerging that both are associated with poorer academic performance.<sup>23</sup> One study of nearly 2000 5<sup>th</sup>, 7<sup>th</sup> and 9<sup>th</sup> graders found consistent positive associations between aerobic fitness and math, reading and language test scores and consistently poorer scores in children whose BMI-for-age was elevated.<sup>24</sup> Unpublished data collected by Dr. Steve Gaskill on children in Missoula, MT are consistent with these

findings. These data point to the importance of decreasing screen time and encouraging vigorous active play, ideally outdoors, that builds aerobic fitness.

When kids are instructed to turn off the TV or other screens, parents<sup>25</sup> need to be prepared. Kids might complain they are bored and don't know what to do. My mother led me to believe that boredom was a moral failing on my part that could only be remedied only by going outside or reading a book. Arming a parent with enjoyable ideas to suggest to a whining child is a good defensive tactic. Shape Up America! created three small posters<sup>26</sup> that can be taped to the refrigerator door offering ideas of what kids (and families) can do when they turn off the TV. Sitting down with your children to develop your own list of ideas can be fun. A separate list of rainy day activities is a good idea. Here are some additional ideas to think about:

- For birthdays and holidays, buy gifts that promote physical activity, especially outside activities
- To reward good behavior or good grades, do something active with your child like go for a hike or go ice skating.
- Emphasize having fun, rather than winning
- Designate one area inside your home where rolling, climbing, jumping and tumbling is permitted
- Insure that your child's school curriculum includes adequate time for recess and physical education with instruction provided by qualified PE teachers
- Team up with other parents of young children to devise safe opportunities for outdoor play after school and on weekends. Can school facilities become a part of the solution?

The website of the Montana Nutrition and Physical Activity ([www.MontanaNAPA.org](http://www.MontanaNAPA.org)) program is a useful resource for those seeking to implement screen time reduction activities including ways to participate in Screen-Free Week. For more information about screen time reduction see the WE CAN! Website produced in collaboration with the National Institutes of Health.

[<http://www.nhlbi.nih.gov/health/public/heart/obesity/wecan/reduce-screen-time/tips-to-reduce-screen-time.htm>] WE CAN! offers a parent handbook and other useful tools and resources. [See <http://www.nhlbi.nih.gov/health/public/heart/obesity/wecan/tools-resources/tools-reduce-screen-time.htm>] See also the Center for Screen Time Awareness [[www.screentime.org](http://www.screentime.org)].

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<sup>1</sup> Burdette HL, Whitaker RC. Resurrecting free play in young children. *Arch Pediatr Adolesc Med.* 2005;159(1):46-50

<sup>2</sup> Ginsburg KR; American Academy of Pediatrics Committee on Communications; American Academy of Pediatrics Committee on Psychosocial Aspects of Child and Family Health. The importance of play in promoting healthy child development and maintaining strong parent-child bonds. *Pediatrics.* 2007;119(1):182-191.

<sup>3</sup> Louv R. *Last Child in the Woods: Saving our Children from Nature-Deficit Disorder.* Chapel Hill, NC: Algonquin; 2008

<sup>4</sup> Office of the United Nations High Commissioner for Human Rights. Convention on the Rights of the Child. General Assembly Resolution 44/25 of 20 November 1989. Cited by Ginsburg (reference 2 above) [See also <http://www.unicef.org/magic/briefing/uncorc.html>]

<sup>5</sup> Burdette HL, Whitaker RC. Resurrecting free play in young children. *Arch Pediatr Adolesc Med.* 2005;159(1):46-50

<sup>6</sup> Ginsburg KR; American Academy of Pediatrics Committee on Communications; American Academy of Pediatrics Committee on Psychosocial Aspects of Child and Family Health. The importance of play in promoting healthy child development and maintaining strong parent-child bonds. *Pediatrics.* 2007;119(1):182-191

<sup>7</sup> Tamis-Lemonda CS, Shannon JD, Cabrera NJ, Lamb ME. Fathers and mothers at play with their 2- and 3-year-olds: contributions to language and cognitive development. *Child Dev.* 2004;75(6):1806-1820

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- <sup>8</sup> Ericson RJ. Play contributes to the full emotional development of the child. *Educ*. 1985;105:261-263
- <sup>9</sup> Tamis-Lemonda CS, Shannon JD, Cabrera NJ, Lamb ME. Fathers and mothers at play with their 2- and 3-year-olds: contributions to language and cognitive development. *Child Dev*. 2004;75(6):1806-1820
- <sup>10</sup> See references 5 and 6
- <sup>11</sup> Shonkoff JP, Phillips DA, eds. *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, DC: National Academy Press; 2000:165-169
- <sup>12</sup> See references 5 and 6
- <sup>13</sup> McElwain EL, Volling BL. Preschool children's interactions with friends and older siblings: relationship specificity and joint contributions to problem behavior. *J Fam Psychol*. 2005;19:486-496
- <sup>14</sup> Pica R. Beyond physical development: why young children need to move. *Young Child*. 1997;52:4-11
- <sup>15</sup> See references 5 and 6
- <sup>16</sup> Pellegrini AD, Bohm CM. The role of recess in children's cognitive performance and school adjustment. *Educ Res*. 2005;34:13-19
- <sup>17</sup> Dillon S. Schools cut back subjects to push reading and math. *New York Times*. March 26, 2006;1:1
- <sup>18</sup> See reference 2, page 184.
- <sup>19</sup> Baranowski T, Thompson WO, DuRant RH, Baranowski J, Puhl J. Observations on physical activity in physical locations: age, gender, ethnicity, and month effects. *Res Q Exerc Sport*. 1993;64(2):127-133
- <sup>20</sup> Cleland V, Crawford D, Baur LA, Hume C, Timperio A, Salmon J. A prospective examination of children's time spent outdoors, objectively measured physical activity and overweight. *Int J Obes (Lond)*. 2008;32(11):1685-1693
- <sup>21</sup> Louv R. *Last Child in the Woods: Saving our Children from Nature-Deficit Disorder*. Chapel Hill, NC: Algonquin; 2008
- <sup>22</sup> Jackson DM, Djafarian K, Stewart J, Speakman JR. Increased television viewing is associated with elevated body fatness but not with lower total energy expenditure in children. *Am J Clin Nutr*. 2009; 89(4):1031-1036
- <sup>23</sup> Roberts CK, Freed B, McCarthy WJ. Low aerobic fitness and obesity are associated with lower standardized test scores in children. *J Pediatrics* 2010; Jan 25 online.
- <sup>24</sup> Roberts CK, Freed B, McCarthy WJ. Low aerobic fitness and obesity are associated with lower standardized test scores in children. *J Pediatrics* 2010; Jan 25 online.
- <sup>25</sup> The word "parent" is used to represent the entire range of adult caregivers who raise children
- <sup>26</sup> [http://www.shapeup.org/fittips/20T\\_with%20Circles\\_FINAL\\_WEB.pdf](http://www.shapeup.org/fittips/20T_with%20Circles_FINAL_WEB.pdf)  
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