

# Keeping Children Healthy: Recommendations for Promoting Physical Education and Physical Activity in Schools



Regular physical activity promotes children's growth and development and offers physical, mental, and cognitive health benefits. Children who are more active also demonstrate higher scholastic achievement, better classroom behavior, greater ability to focus, and less absenteeism than their unfit peers.<sup>1, 2, 3, 4, 5</sup> Quality physical education is the best way to help children achieve recommended levels of physical activity, while gaining the knowledge and skills they will need to be healthy and active for the rest of their lives. The American Cancer Society Cancer Action Network (ACS CAN) supports policies that promote quality physical education and the adoption of additional opportunities to engage in physical activity throughout the day.

## Physical Activity and Cancer

Maintaining a healthy weight and staying physically active throughout life are among the best ways for most people to reduce their risk of developing and dying from cancer.<sup>6</sup> Behind tobacco use, the most significant risk factors for cancer include overweight and obesity, physical inactivity, and poor diet. Healthy habits can be developed through quality physical education during childhood, and should continue throughout adulthood.<sup>7</sup>

Being physically active positively influences health outcomes and reduces the potential risk of cancer. Multiple studies underscore the role of weight, activity, and diet on cancer risk.

- In the U.S., lifestyle-related risk factors are responsible for approximately 20 percent of cancer cases.<sup>8</sup>
- Being overweight or obese is associated with increased risk of cancer development and recurrence, as well as decreased risk of survival<sup>9</sup> for a number of cancers, including breast (in postmenopausal women),<sup>10</sup> colon and rectum,<sup>11</sup> endometrium, kidney, esophagus, pancreas, and gall bladder.<sup>12</sup>
- Excess weight may also be associated with risk for cancers of the liver, cervix, and ovary, and non-Hodgkin lymphoma, multiple myeloma, and aggressive prostate cancer.<sup>13</sup>
- Physical activity helps manage weight and independently reduces the risk of cancers of the breast, colon, endometrium, and advanced prostate cancer.<sup>14</sup>
- Physical activity after a cancer diagnosis can also improve physical functioning and quality of life.<sup>15</sup>

## Childhood Obesity, Physical Education, and Physical Activity

The prevalence of childhood obesity has more than doubled in children and quadrupled in adolescents since the mid-1980s.<sup>16</sup> Though prevalence rates have remained stable between 2003-2004 and 2013-2014,<sup>17</sup> overall numbers remain high and contribute to what can largely be considered preventable negative health outcomes.

- Overall, 17 percent (about 1 in 6) of children ages 2-19 are obese.<sup>18</sup> When overweight children are included, the figure rises to nearly 32 percent.<sup>19</sup>
- Obesity prevalence increases with age: 8.9 percent, 17.5 percent, and 20.5 percent of 2-5, 6-11, and 12-19 year-olds are obese, respectively.<sup>20</sup>

Most children in the U.S. do not meet physical activity recommendations and are not offered sufficient physical education.<sup>21,22</sup> Daily physical activity among youth has been declining for the past several decades,<sup>23</sup> due in part to the changing school environment, declining school budgets, and corresponding decreases in planned, sequential K-12 standards-based physical education programs. Despite these trends, a recent study suggests that although students are not as active as they should be, they are most active in the school environment, suggesting that schools are an ideal setting for promoting physical activity and reinforcing healthy habits.<sup>24</sup>

A growing body of research underscores the lack of physical education among children in the U.S.

- Only 3.6 percent of elementary, 3.4 percent of middle, and 4.0 percent of high schools required daily physical education or its equivalent for the entire school year.<sup>25</sup>
- Nationwide, less than half (48 percent) of high school students attend at least some physical education classes in any of their grades and about 29 percent of those students have daily physical education during any portion of the school year.<sup>26</sup>
- Students aren't required to take any physical education in nearly one-quarter of schools.<sup>27</sup>

Studies also confirm the lack of physical activity among children in the U.S.

- A study published in 2008 found that only 42 percent of children engaged in the recommended 60 minutes of physical activity most days of the week.<sup>28</sup>
- In 2012, only about one-quarter of children ages 12-15 years met recommended levels of daily physical activity.<sup>29</sup>
- In 2013, only 27 percent of high school students met physical activity recommendations. The proportion varied by state, ranging from approximately 16 percent in the District of Columbia to 39 percent in Oklahoma.<sup>30</sup>

ACS CAN supports the *Physical Activity Guidelines for Americans* recommendation that school-age children engage in 60 minutes or more of physical activity daily, most of which should be moderate- or vigorous-intensity physical activity—activity that makes one sweat or breathe hard.<sup>31</sup> This recommendation is also part of the American Cancer Society's nutrition and physical activity guidelines for cancer prevention,<sup>32</sup> and consistent with those of other major health groups including the Institute of Medicine,<sup>33</sup> the American Heart Association,<sup>34</sup> the American Diabetes Association,<sup>35</sup> and the Society of Health and Physical Educators.<sup>36</sup>

To reach the recommended minutes and types of physical activity, quality school physical education programs must be a part of a comprehensive, well-rounded education for K-12 students across the country. By building students' confidence and skills through physical education, students develop activity habits that can help reduce their risk of developing cancer later in life.

Other activities to supplement physical education can occur before, during, or after the school day and may include classroom physical activity breaks; recess; intramural, club, and sports programs; walk or bike-to-school programs; and afterschool programs. These other occasions for vigorous or moderate physical activity offer additional health benefits, even in increments of as little as 10 minutes,<sup>37</sup> and help fill the gap between the amount of physical activity students receive through quality physical education and the recommended 60+ minutes per day.

Both school districts and individual schools should be held accountable for the implementation of high-quality physical education as well as policies and practices that promote physical activity. Physical education assessments can then determine the extent to which programs are having their intended benefits, and can demonstrate to education leaders where efforts are successful or need additional strengthening and supports to meet students' needs. Student-level assessment and reporting on progress towards meeting physical education learning objectives can and should be used to assess improvements in individual students' fitness levels, rather than comparing a student to absolute targets or to other students.

## Benefits of Physical Education and Physical Activity for Youth

A comprehensive school-based physical activity program, which includes physical education, has been shown to improve children's academic performance, physical and mental health, and overall well-being, while simultaneously reducing health disparities.<sup>38,39</sup> In fact, research has shown that physical fitness is an even greater predictor of academic achievement than body mass index.<sup>40</sup>

Academic-related benefits of physical activity and physical fitness include:

- Enriched cognitive development and improvements in the brain structure and functions that underlie academic performance.<sup>41</sup>
- Improved scholastic achievement, better classroom behavior, greater ability to focus, and less absenteeism (compared to their unfit peers).<sup>42, 43, 44, 45, 46</sup>
- Improved self-esteem, greater social interaction amongst peers, and greater ability to achieve goals.<sup>47</sup>

Health-related benefits of physical activity include:

- Reduced cancer risk<sup>48</sup> and for cancer patients, improved quality of life and survival odds.<sup>49</sup>
- Improved cardiorespiratory endurance and muscular fitness, bone health, cardiovascular and metabolic health markers, and favorable body composition.<sup>50</sup>
- Reduced symptoms of anxiety and depression.<sup>51</sup>

**Physical education is also the only physical activity-related policy or program that can reach and benefit all students, including those with disabilities.** Schools are required to make physical education accessible to all students, and when necessary, provide adapted physical education to some students.<sup>52</sup> In addition, the benefits of improving the school physical education curricula are realized across racial, ethnic, and socioeconomic groups, among boys and girls, elementary- and high-school students, and in urban and rural settings.<sup>53</sup>

Parents support increasing physical education in schools. A 2013 online survey found that 92 percent of parents of elementary students and 87 percent of parents of middle and high school students supported requirements for physical education.<sup>54</sup> These findings echo previous surveys in which nearly all surveyed parents of K-12 children believed physical education should be part of a school curriculum for all students<sup>55</sup> and that physical education is at least as important as other academic subjects.<sup>56</sup>

## ACS CAN Supports Quality Physical Education and Physical Activity in Schools

ACS CAN is working at the federal, state, and local levels to prevent cancer by advocating for legislation and regulations that support strong school physical education and physical activity programs for children. School-based physical education policies and programs should prioritize providing all students with frequent, quality physical education. It should also provide additional opportunities to be active, and help hold school districts accountable for providing quality programs.

To this end, ACS CAN advocates for:

### *Mandatory physical education*

- Use of a planned, sequential K-12 physical education curriculum that adheres to national and state standards to implement physical education
- Adequate equipment, facilities, student-teacher ratios
- No waivers, substitutions, exemptions
- Licensed, certified physical education teachers
- Annual professional development for physical education teachers that is specific to their field and integrates the public health model
- Modifications or adaptations, instead of waivers, that allow physical education courses to meet the needs of students with disabilities
- Fitness and cognitive assessment in physical education that is reported to parents for individual student progress and to the community and relevant state agencies in an aggregate manner
- Requirement of 150 minutes of physical education per week in elementary school and 225 minutes per week of physical education in middle school and high school

### *School-based Physical Activity*

- Daily use of classroom physical activity breaks
- Implemented school wellness policy that establishes requirements for physical activity and

<p>physical education</p> <ul style="list-style-type: none"> <li>• Active transportation policy to and from school</li> <li>• Daily elementary school recess for at least 20 minutes</li> <li>• Shared use policy that makes physical activity facilities available to the community during out of school time</li> <li>• Intramural/club/sports activities provided by the school/district</li> </ul>
<p><i>Assessment/Accountability</i></p> <ul style="list-style-type: none"> <li>• Fitness and cognitive assessment in physical education shared with parents for individual student progress and with the community and relevant state agencies in an aggregate manner</li> <li>• School-based comprehensive self-assessment of physical education programs and physical activity offerings using existing tools such as the Physical Education Curriculum Analysis Tool</li> <li>• Results of the assessment integrated into the school district or school's long-term strategic planning and/or school improvement plan, and school wellness policy</li> </ul>

Policymakers, teachers, administrators, parents and other stakeholders must continue to advocate for quality physical education and physical activity programs in our nation's schools. This growing movement can help all children realize their potential for a lifetime of physical activity, health, and wellness, including reduced risk of cancer into and throughout adulthood.

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