

## PHYSICAL ACTIVITY

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# Synthesis

### How important is it?

Child obesity is a growing problem in many nations. In 2005, the number of overweight children under the age of 5 was approximately 20 million. Despite common beliefs that children are naturally active, rates of physical activity are low in several countries. In fact, behaviours associated with a sedentary lifestyle are often common place in the daily routine of young children. Sedentary behaviours, such as television viewing and playing computer games, typically require little energy expenditure. These behaviours are not necessarily in opposition to physical activity because a child who engages in physical activity can also spend a significant amount of time in sedentary behaviours. However, given that sedentary living might have long-term negative health consequences and that physical activity is beneficial to children's health and development, it is important to find ways to encourage children to develop a healthy lifestyle from an early age.

### What do we know?

Sedentary activities are often introduced early on in the infant's daily routine, and have a tendency to increase steadily from infancy to the preschool years, whereas rates of physical activity tend to be low both at home and in the child care setting. However, these rates also vary across studies and depending on the measurement tool used to assess physical activity. A recent U.S. report estimated that the average preschool child spent 320 minutes per day engaging in physical activity. In contrast, the use of an objective measure in a different study conducted in Australia and Portugal revealed that preschoolers spent 110 to 120 minutes daily engaging in physical activity.

*Factors associated with physical activity*

Several factors are related to physical activity. Boys and girls who have active parents and who spend a lot of time outdoors are typically the most physically active. Predictors of physical activity vary depending on both the child's characteristics (e.g., age) and the settings/contexts (e.g., home vs. child care). For example, in preschool, kindergarten and child care settings, children are most active 1) when they play in an unconstrained environment 2) when the duration of recess is shorter, and 3) when the staff is trained to engage children in physical activity. Providing children with play equipments that are both fixed and portable and with opportunities to engage in physical activity also increase their engagement.

### *Outcomes*

Physical inactivity in young children is a risk factor for many health problems such as high blood pressure, weight gain, excess body fat, bad cholesterol, respiratory difficulties, cardiovascular diseases and bone health problems.

The health benefits of physical activity on child development extends much beyond physical health as it also impacts the domains of motor skills, psychological well-being, social competence and emotional maturity. In contrast, sedentary behaviours are considered to pose a threat to young children's cognitive development. Preschool children who watch a lot of television are likely to experience cognitive difficulties in the school years, including attention deficits, poor language skills, low school achievement, and a short memory span (i.e., a list of items a person can retain).

### **What can be done?**

To encourage children to develop an active lifestyle, different organizations advise limiting the amount of time children spend in sedentary behaviours, and promoting physical activity in the family and in the child care setting. For example, American and Australian organizations recommend that children under 2 not watch television, and that those between 2 and 5 be limited to 1 to 2 hours per day. Given that the exact amount required for physical activity to be beneficial for children still remains to be determined, minimal daily standards vary across nations. In Australia, authorities recommend three hours of physical activity distributed across the day for both toddlers and preschoolers, with no specified intensity to allow room for children's natural dispositions. Meanwhile, U.S. guidelines are more specific and recommend that toddlers and preschoolers be involved in daily structured physical activity for 30 and 60 minutes respectively, whereas at least one hour of their day should be dedicated to unstructured physical activity (e.g., climbing on a play structure), a duration that can be extended up to several hours.

Parents can encourage their child's participation in physical activity by being role models who provide every opportunity for the child to be active, such as going for short walks instead of stroller rides, and who limit time spent in sedentary behaviours. Parents are also responsible for providing safe and risk-free environments both indoors and outdoors where their child can be physically active. Parents should make sure to give equal opportunities to both sons and daughters to be physically active. To enhance physical activity at home, policy makers should make parental education and support a priority. In the child care setting, physical activity can be enhanced by integrating physical exercises of varying intensity both indoors and outdoors in children's daily routine, and by making these activities more enjoyable. Children should be provided with a proper size outdoor space including shaded areas and portable equipment. Training child care professionals in integrating physical

activity within the curriculum has also been found to be a winning strategy to promote children's engagement.