



Healthier,
Happier,
Smarter.

Nature as a Health Initiative in Schools

STUDENT HEALTH

WHAT ARE THE ISSUES

- Depression, anxiety, and other mental health disorders have increased over the last 20 years in children ages 6-17 years old.¹
- 2 in 5 students suffer from a chronic health condition, which can last from a year to a lifetime if left untreated.²
- Childhood obesity has increased at an alarming rate in the US, with nearly 20% of children, ages 2 to 19, being obese. The rate of obesity is even greater in Hispanic and African American children, ages 2-19, with 25% obese.³
- Less than one-quarter (24%) of children 6 to 17 years of age participate in 60 minutes of physical activity every day.⁴
- There is a need for increased awareness about the connection between free play and overall physical and mental health.

FACTORS IMPACTING STUDENT HEALTH

- Overall childhood health is impacted by their environment, genetics, and sociological learning.⁵
- Schools play a critical role in shaping mental, physical, and social growth of students, with 95% of children and adolescents in the U.S. spending much of their daily lives in school⁶ and consuming half their daily calories while in school.²
- Safety concerns, increased violence and online bullying.
- Recess policies and time outdoors in free play.
- Equitable access to safe outdoors spaces.
- Increased screen time during school and at home.

WHY TIME OUTDOORS IS KEY FOR CHILDRENS HEALTH

Abundant research shows that children and teens who regularly play and learn outdoors:

- **Are healthier physically and mentally**
 - Improves mental health
 - Helps reduce and prevent the onset of childhood obesity and diabetes
 - Important for healthy development of bones, muscles, and balance
 - Higher self-esteem
 - Feel more capable and confident
 - Reduced stress
- **Are more successful in school**
 - Better attention span
 - Higher test scores
 - Have good self-discipline
 - Are effective problem solvers
 - Are more cooperative with others
 - Are more creative
- **Better connected to nature, and positioned to become the conservation leaders of tomorrow**

(1) [CDC Children's Mental Health, 2023.](#) (2) [CDC Promoting Health for Children and Adolescents, 2022.](#) (3) [CDC Childhood Obesity Facts, 2022.](#) (4) [CDC Physical Activity Facts, 2022.](#) (5) [Tackling childhood obesity in the Houston area, 2023.](#) (6) [CDC Youth Risk Behavior Study, 2021.](#)



WHY TIME IN NATURE CAN IMPROVE STUDENT HEALTH



Improved Mental Health

The American Academy of Pediatrics recognizes the importance of playing outdoors for children's health and social-emotional development.⁷ When kids play, they build self-awareness and are better able to communicate emotions and feelings, as well as self-regulate with their peers. Play helps them practice problem-solving skills, deal with stress, and understand their emotions. Playing without rules and structure (free play) also increases self-esteem, and can reduce anxiety and ADHD symptoms.⁸ Play is essential for healthy brain development.⁹

Improved Physical Health

When children engage in free unstructured play, without adult guidance or rules, it becomes a natural avenue for them to engage in physical activity. Research shows that unstructured, self-guided play breaks (recess) during the school day enhance children's physical fitness, motor skills, coordination, cognitive performance, and attention span. Free play during recess also helps stimulate muscle development, bone strength, and cardiovascular health. In addition, incorporating "risky play" helps children understand boundaries and become better at risk assessment.



Improved Academic Performance

Recess and unstructured play breaks have a significant impact on attention and executive function skills in children. Taking breaks for unstructured play helps them boost their ability to concentrate and stay focused during academic tasks. It helps improve impulse control, working memory, and the ability to switch between tasks, crucial cognitive functions that help students plan, organize, and execute assignments. Daily recess, multiple times a day, is encouraged to help students be more engaged, attentive, and ready to learn.¹⁰

Creating Safe Outdoor Spaces for All Children

Green schoolyards, which are multi-functional park-like play areas that incorporate natural features, provide students with a safe space to learn, play, and improve their well-being while contributing to the community's ecological health and climate resilience. They offer many benefits, such as promoting physical health through active play, encouraging creative and imaginative play, and providing a calming environment that enhances concentration and reduces stress. In addition to being used as school playgrounds and outdoor classrooms, they can also serve the community as a park after hours, encouraging social interactions and community engagement, while fostering an appreciation for nature and a sense of belonging for all. Research has shown that students in green schoolyards experience a 50% increase in physical activity compared to traditional playgrounds,¹¹ and experience reduced stress, depression, and blood pressure, while improving self-esteem and mood.¹²



(7) [Nature and children's health: A systematic review, 2021.](#) (8) [Growing up green: a systematic review of the influence of greenspace on youth development and health outcomes, 2022.](#) (9) [Michael & Susan Dell Center for Healthy Living: Healthy Children, Healthy State: Child Obesity Crises In Texas, 2010.](#) (10) [Resurrecting Free Play in Young Children Looking Beyond Fitness and Fatness to Attention, Affiliation, and Affect, 2005.](#) (11) [Grounds for Health: The Intersection of Green School Grounds and Health-Promoting Schools, 2008.](#) (12) [The health impact of nature exposure and green exercise across the life course: a pilot study, 2019.](#) For full articles and additional research, visit our website at www.TexasChildreninNature.org.

ABOUT TEXAS CHILDREN IN NATURE NETWORK

The mission of Texas Children in Nature Network (TCiNN) is to ensure equitable access and connection to nature for all children in Texas.

We are a grassroots network of over 700 partner organizations and individuals dedicated to connecting children and families with nature in Texas to be healthier, happier and smarter. Our nine regional collaboratives across the state work directly with local communities to fulfill our mission through community outreach and engagement, nature-based programming, and special initiatives. Resources, ideas and strategies are leveraged and shared across the network.

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