RECLAIM RECESS

DOCTORS FOR CHANGE

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Introduction

Remember recess? You might remember football, tag, or monkey bars. What you might not remember are the cognitive, psychological, physical health benefits of recess. However, our Texas children are being denied recess, and they are losing significant developmental advantages. Current evidence overwhelmingly shows that recess provides significant health and academic benefits. Yet, recess is disappearing across Texas schools. By strengthening Texas recess policy, we not only promote greater health outcomes, but also improve academic performance, reduce socioeconomic disparities, and lower health costs. Healthy students are better learners. Improved recess policy is critical to health and prosperity for all Texans.

Recess in Texas Today

Under current Texas guidelines, 1 in 4 students miss out on recess.

Texas' education code recommends that students have 135 minutes per week for physical activity, which includes physical education and structured recess.[1] However, **schools are permitted to take recess away if students are not performing well academically or if the school cannot afford a physical education teacher.[2]** Students are also able to earn their required physical education credits via online physical education courses.[3] These exceptions in the law have led to drastic consequences for students; a 2010 survey found that nearly **one-fourth (24.1%) of Texas elementary schools did not provide recess**.[4]

24.1%

of Texas elementary schools did not provide recess (2010)

Texas children suffer because of lack of physical activity.

71%

of Texas children ages 6-17 do not engage in vigorous physical activity for more than 20 minutes a day

Only 29% of Texas children ages 6-17 engage in vigorous physical activity for more than 20 minutes every day; this falls well short of the American Academy of Pediatrics' recommended 60 minutes of moderate-to-vigorous activity per day.[5] Furthermore, **36.6% of Texas children between the ages of 10 and 17 are overweight or obese.[6]** Beyond immediate health risks, childhood overweight and obesity predispose children to lifelong health issues including adult overweight and obesity.[7] Medical costs for childhood obesity alone weigh heavily on the state. In 2005, Texas' obesity-associated hospital costs for children were $237.6 million per year.[8] Correspondingly, over two-thirds of Texas adults are obese, and healthcare for obese adults also exceeds those for normal-weight adults by 42%.[9,41]

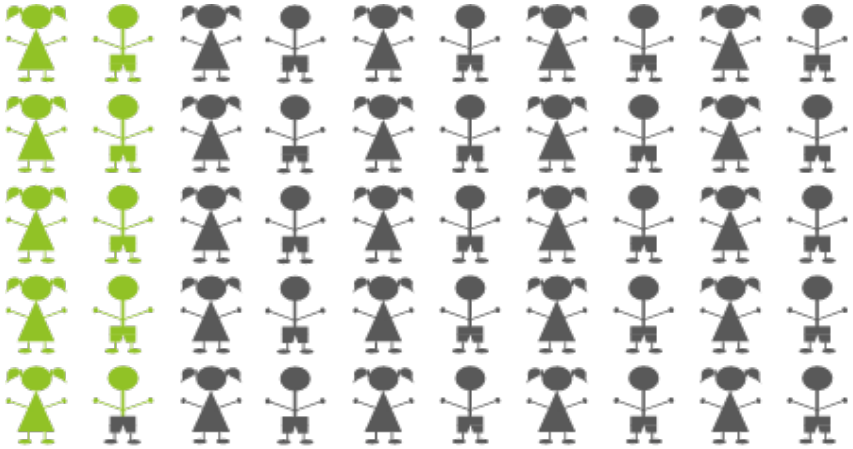
Health Consequences of No Recess

Decreased physical activity increases the risk of childhood obesity.

Without recess, children have limited or no time for physical activity during the school day and have an increased amount of sedentary time. These factors increase the risk of childhood obesity. Reduced physical activity and obesity raise the risk of developing chronic illnesses such as diabetes, heart disease, high blood pressure, and asthma.[10] **Obese and overweight children are more likely to remain obese in adulthood, further increasing their risk for developing chronic illnesses.**[11] Along with physical health risks, obese children face a higher risk for anxiety and depression. They also experience lower self-esteem and academic performance.[12] A research study found that children who had limited or no physical activity during the school day remained physically inactive after school.[13] **Recess is a critical time to get physical activity in, especially since children are not compensating for their lack of activity at home.**

Children without recess have a higher risk of developing depression & anxiety.

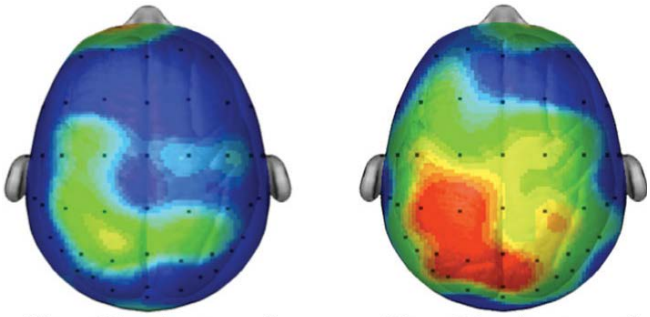
As the pressure for high test scores increases, children are faced with more challenging course work and more pressure to meet high standards of success. **Without recess, children have one challenging cognitive task after another with no breaks. This can raise stress levels and increase the risk for developing anxiety.**[14] Childhood obesity also has a negative impact on mental health. Depression can be considered both a cause and consequence of obesity and can lead to eating disorders and low self-esteem. Social discrimination can make it difficult for obese or overweight children to make friends. **The consequences of obesity and depression make it difficult for these children to succeed both socially and academically.**[15] [16]



Only 19 of 100 Texas 3rd graders meet all 6 Health Fitness Zone goals.[16]

Children without recess have decreased academic performance.

Schools have replaced recess with more class time in hopes of having students get higher scores. However, **more class time does not lead to better scores**. There are many studies that show children that get a recess break between cognitive activities showed better focus and attention on the next cognitive activity than children who did not get a break.[17] Not only does physical activity increase neural activity in the brain, **but consistent physical activity also improves memory function over time**.[43] After participating in a nine-month afterschool program with 70 minutes of moderate to vigorous exercise per weekday, elementary-aged children demonstrated improvements in relational and working memory that were not found in children waitlisted for the afterschool program.[43] Recess allows the mind to rest and process recently learned information. Without recess, children are less focused and more likely to have behavioral problems during class.[18] **Increased recess time has been shown to have a positive effect on academic performance and behavior**.[19]



After 20 minutes of sitting quietly | **After 20 minutes of walking**

Research/scan compliments of Dr. Chuck Hillman, University of Illinois

Health Benefits of Recess

Increased physical activity reduces the risk of developing chronic illnesses.

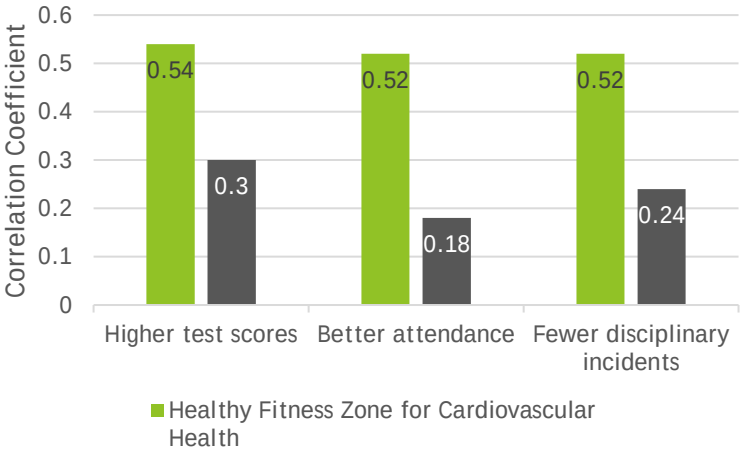
Recess allows children to engage in physical activity during the normally sedentary school day. Compared to physical education classes or after school programs, **42% of a child's total physical activity opportunities occur during recess.**[20] Recess allows children to get closer to achieving the recommended 60 minutes of daily activity. **Regular physical activity and reduced sedentary time lowers the risk of developing obesity, diabetes, heart disease, high blood pressure, high cholesterol, and asthma.** It also reduces the risk of premature death.[21] Physical activity also aids in the development and maintenance of healthy bones and muscles. In addition to physical education classes, increased physical activity through recess can make a positive long-term impact on a child's health and wellbeing.

Benefits: Recess Participation	Consequences: Lack of Recess
↓ Risk- Chronic Illness	↑ Risk- Childhood Obesity
↑ Mental Health	↑ Risk- Depression & Anxiety
↑ Social Development & Academic Performance	↓ Academic Performance

Recess improves mental health.

Recess provides an opportunity during the rigorous school day for children to relax and have some fun. **This mental break allows them to process information and form long-term memories of recently learned information.** It gives children a break from academic pressure and reduces stress levels. Recess also provides a time for socialization and building relationships. This can help improve self-esteem and overall happiness.[22] **Physical activity reduces the risk of developing depression and anxiety.[23] Improved mental and physical health reduces the number of days children are absent from school.**

Correlation between Student Fitness, Test Scores, Attendance, & Disciplinary Incidents [26]



Children within the Healthy Fitness Zone standards for cardiovascular health and body mass index (BMI) are more likely to have improved test scores, better attendance, and fewer disciplinary actions than children who do not meet these Healthy Fitness Zone standards.[26]

Recess promotes positive social development & academic performance.

Recess is an important time for social development. Unstructured play time allows children to develop their own games and choose how to manage their time. This freedom allows them to be creative and active while interacting with peers.[24] This also aids in the **development of social skills, like teamwork and conflict resolution.** Participation in sports is correlated with increased self-esteem, better social skills, and decreased depression.[25] **Children who are physically active are more likely to succeed academically and have better attendance at school.[26]** Recess not only improves the child's mental and physical wellbeing, but it also improves social development and academic performance.

Economic and Social Consequences of Lack of Recess

Recess improves physical health and could offset some of the healthcare costs of obesity.

Obesity is closely associated with many preventable chronic physical and mental illnesses. Obesity-related complications, like diabetes, heart diease, stroke, and certain cancers, are the leading causes of death in the U.S. and world-wide.[42] As it currently stands, **obesity-related healthcare problems cost Texas over $1.4 billion a year**, as medical spending on obese individuals was 42% higher compared to their non-obese counterparts.[41] Not only do obese children cost 25% more to treat for issues such as asthma, pneumonia, and appendicitis, but it also has been shown than **one-third of obese preschoolers and one-half of obese school-age children go on to become obese adults**. There is a clear cost-saving potential here, as even a one percentage point reduction in the nation-wide obesity rate of 12-year old children would save 260.4 million dollars over their lifetime.[27]

$1.4 Billion

Annual cost of obesity-related healthcare problems in Texas

Recess can play a crucial role in the physical welfare of children, improving child health and creating life-long habits that improve long-term health outcomes. The CDC recommends 60 minutes a day of physical activity for children, citing activities such as free-time play and playing on a jungle gym, two common recess games, as fun ways to get kids active.[28] In the long run, incorporating recess and allowing our children to establish these healthy habits could save billions in direct healthcare costs.

Recess promotes positive social development and academic performance.

There are additional social and economic consequences of rising obesity that could be aided by more recess for children. For example, studies have shown that obesity is associated with delayed skill acquisition in children. This could help explain why obesity is associated with lower wages in adults and extra labor market costs to both the obese individual and employer, such as those related to obesity-related absenteeism.[29] By helping sow the seeds of health in childhood through recess, we avoid poor health outcomes and later reap secondary developmental benefits, like proper skill acquisition.

School recess could also improve students' focus and behavior, reducing off-task time wasted in the classroom. The CDC reports that 10.1% of Texas students have been diagnosed with attention-deficit hyperactivity disorder (ADHD).[30] Many studies have shown the benefits of recess on student behavior, especially on those with behavioral disorders. One study, examining classroom behavior of 4th grade students with ADHD, illustrated how **30 minutes of unstructured play-time improved impulsivity and aggression while lowering the number interruptions to others during class**.[31] As it stands, **elementary aged children have been found to be off-task in class 29% of the time, of which 63% is due to distractions by self or by their peers**. Reducing this wasted time by providing recess means more effective classroom instruction, which could lead to higher test scores and better social outcomes.

30 minutes

of unstructured daily play time improved 4th graders with ADHD's

impulsivity & aggression.

Recess Success Story Takes Shape in Dallas.

The LiiNK Project, based in Dallas, Texas, has studied the effects of three daily, 15-minute recess periods, and preliminary results show an association with more disciplined and focused students. Despite being in its early years, **they have also seen a significant rise in both reading and math scores**.[32] Increased student focus and

less wasted time have far reaching consequences for the efficacy of our education system, promoting a more economical use of the limited time that students spend in school.

These results in Texas are in line with a meta-analysis study by the CDC that explored the relationship between recess and academic performance. All studies analyzed found one or more positive associations between recess and cognitive skill, attitudes, and academic behavior, allowing the CDC to state that, "there is substantial evidence that physical activity can help improve academic achievement."[33]

Thus, recess could play a clear role in reducing Texas economic expenditure while also having substantial effects on improving students' academic performance and behavior.

Disparities in Access to Recess

Lack of recess disproportionately affects poor, urban, and minority students.

Far too many Texas students are not given opportunities to engage in free-time play during recess and are not receiving adequate physical activity as recommended by the American Academy of Pediatrics.

These statistics worsen when discussing students enrolled in schools serving low-income communities. The Center for Public Education, has noted that it was more likely for schools identified as "in need of improvement" under the No Child Left Behind Act to decrease the time of recess by an hour each week to provide for more in-class teaching time. These schools were overwhelmingly serving students of lower socioeconomic status and located in low-resource communities. The Center for Public Education's recess investigation also revealed that **children in high-minority, high-poverty, or urban schools are far more likely than other children to not receive recess at all.** First grade students enrolled in schools with a minority enrollment of at least 50% have no allotted time for recess in the schedule, along with schools with a poverty rate of over 75% and schools located in urban environments.[34] Although this data is specifically for first grade students, the Center for Public Education acknowledges that these disparities persist through sixth grade.

Lack of recess translates to less physical activity and poorer health for students of low socioeconomic status.

Furthermore, the American Journal of Health Promotion published a study that investigated the differences of elementary students' physical activity with regards to socioeconomic status (SES).[35] Their report found that students in more affluent areas were more likely to have trained physical education teachers than students on the opposite end of the socioeconomic spectrum. Their study revealed that, on average, **students of low socioeconomic status had 25 fewer minutes of moderate to vigorous physical activity**. This may be related to a lack of neighborhood infrastructure that provides safe streets, parks, and playgrounds in less affluent communities. Evidence suggests that the opportunity for physical activity may be limited by neighborhood characteristics such as poverty, prevalence of recreational facilities, land use, street connectivity, residential density, and safety. **Unsurprisingly, children raised in environments which limit physical activity are more likely to be diagnosed with obesity and chronic diseases later in life.**

Students of low SES on average had

25 fewer minutes

of moderate to vigorous physical activity than their high SES counterparts.

There is a complex array of factors limiting the health and wellbeing of many Texas students. However, lawmakers can help brighten the futures of all children by protecting and promoting recess at school. School districts do a disservice to children born into poverty when they allow for their physical activity opportunities to be removed by eliminating recess since these students may not have other avenues for exercise.

What can the Texas State Legislature do?

#1: Require school districts to develop a locally determined school recess policy.

In 2001, the Texas legislature passed Senate Bill 19 that required public schools to implement a coordinated school health plan by 2007. In 2009, the legislature established the current 135-minutes of weekly physical activity policy. Implementation of the 2001 law resulted in a 30% increase in physical activity above the minimum requirement among 20 high-risk schools, but implementation of the law varied statewide.[36] Texas' current options for increasing access to recess include providing a state mandate, which may burden schools, or asking local districts to set their own policy. The results of the 2001 law demonstrate that **laws requiring local school administrations to set recess policies customized for their schools can improve students' access to physical activity** even in the absence of a state recess mandate.

Senate Bill 355, filed on December 19, 2016, applies to "the adoption and implementation of a recess policy by public school districts." The bill proposes that school boards be required to review their recess policy every five years. Boards would have to set a recess policy to specify a required number of minutes of weekly unstructured playtime and whether recess time may be withheld as a form of discipline.

#2: Create a recess workgroup to determine best practices for recess policy.

The state of Minnesota implemented a workgroup system to develop a recess toolkit to help their school boards. Through their research and suggestions provided in the toolkit, the state found that they could improve students' behavior and readiness for class learning, thus providing more time for teaching. They also reported that students would be more active during scheduled recess times, leading to healthier lifestyles. Lastly, they found other benefits of recess included diminished bullying, safer schools, and more satisfied teachers.[37] **A workgroup could ease the burden of implementation by giving school districts guidance as they work to devise sound recess policy.**

Case Study: Austin

Despite the 2009 law, in 2016, the Austin American-Statesman reported that "recess had all but disappeared at some schools over the years" as "**60% of high-poverty elementary schools received little or no recess time**, while 82% of the district's more affluent campuses got 30 minutes of unstructured daily play time."[38] In response, the newspaper reported, **"some school board members said they didn't realize they had campuses where recess wasn't offered at all."**[39]

"Some school board members said they didn't realize they had campuses where recess wasn't offered at all."

The school board passed a policy requiring daily recess that cannot be taken away as a form of punishment. Since that change, all schools are offering some daily play time with plans to meet the 30-minute requirement by next school year.[40] The district was able to set locally-appropriate policy, but the change would not likely have occurred without prompting to consider the state of recess in its schools. **The simple act of assessing current recess policy has had a dramatic effect on Austin students' well-being without infringing on the school districts' autonomy.**

Questions? Contact Claire Bocchini at Doctors For Change: cbocch@gmail.com

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