

ZZ  
Brampton: 220 Wexford Road Unit 2 Brampton, ON L6Z-4N7  
Ph: (905) 840-WELL Fax: (905) 840 -LIFE  
[www.drjustineblainey.com](http://www.drjustineblainey.com)  
[www.blaineywellness.com](http://www.blaineywellness.com)

## Even Small Bursts of Exercise Can Make Kids Healthier

**August 19, 2016 | By Dr. Mercola**

Exercise is one of the pillars of good health. Your body was designed to move throughout the day and in many different directions. With well over 200 joints, your body can balance on a horse, run along the beach, sit at a desk or stand at a concert. This is an amazing display of balance and power with hardly any discernable effort. Unfortunately, while digital technology has improved efficiency in many aspects of your life, it has also encouraged less movement and more sitting. Many Americans sit between seven and 15 hours each day. Excessive sitting increases your risk of metabolic disease, cardiovascular disease and the secondary effects of each, such as type 2 diabetes and obesity. Adults and children are facing these same challenges. The rising number of children suffering from obesity increases health risks and costs as the children grow to adulthood. In 2012, more than one-third of all children and adolescents were either obese or overweight. According to the American Heart Association (AHA), this number more than tripled from 1971 to 2011, leading to a staggering number of adults who are now at higher risk of multiple health concerns ranging from obesity to degenerative arthritis. Contributing factors to declining health include poor food choices, lack of quality sleep and insufficient exercise.

### Recent Study Reveals Even Small Changes Can Make a Difference

Getting kids to exercise has become difficult over the past 20 years. What used to be common daily activity for children with their friends has turned into a chore. The effects of this difference in daily activities is showing up in the growing number of children suffering from obesity. However, a recent study shows that children may benefit from very short periods of high intensity physical exercise. Researchers called the high-intensity interval training (HIIT) a more kid-friendly Fun Fast Activity Blast (FFAB). The study evaluated 101 adolescents, measuring triglyceride levels, waist circumference, non-fasting blood glucose, c-reactive proteins, resting blood pressure, 20-meter shuttle run test and carotid artery intima media thickness. Researchers split the participants into two separate groups. The control group continued their normal activities, while the experimental group participated in three 20-minute high intensity exercise sessions per week for 10 weeks, involving an exercise of their choice from basketball, dance, boxing and soccer drills. The results demonstrated benefits in both lower triglyceride levels and reduced waist circumference measurements. Researchers also found an unexpected advantage in the experimental group. These students increased the amount of physical activity by 16 minutes each day over the control group. The increased activity during non-exercise hours suggested to researchers that increasing structured exercise may carry over to increased activity during unmonitored hours. Although there were also improvements in blood pressure, total cholesterol and high density lipoprotein (HDL) cholesterol levels, those changes were not statistically significant. According to the authors: "The role of elevated triglycerides

and waist circumference in cardiovascular disease and metabolic syndrome development underlines the importance of our findings. We also demonstrated that school-based low-volume high-intensity interval training can be delivered as intended, thus representing a novel and scalable means of improving aspects of adolescents' cardiometabolic health."

## **Junk Food Diet Rivals Tobacco's Impact on Children's Health**

The first speaker was Michael Mudd, vice president of Kraft, who acknowledged the difficulty of the subject matter. He proceeded to share staggering statistics about the growing obesity problem, and then compared food products to cigarettes. Quoted in The New York Times, Mudd said: As a culture, we've become upset by the tobacco companies advertising to children, but we sit idly by while food companies do the very same thing. And we could make a claim that the toll taken on the public health by a poor diet rivals that taken by tobacco." Following this, Mudd proposed a plan to gain a deeper understanding of what triggered overeating, to scale back the use of salt, sugar and trans fats and use a code to guide marketing, especially advertising aimed at children. In response, Stephen Sanger, head of General Mills, said: "Don't talk to me about nutrition. Talk to me about taste, and if this stuff tastes better, don't run around trying to sell stuff that doesn't taste good." Sanger said he would continue to push his people forward and urged his peers to do the same. Sanger stressed he would not change recipes that had made General Mills so successful. His comments effectively ended the meeting.

## **Better Food Choices and Quality Sleep Affect Exercise**

Your health is a complex combination of external forces such as nutrition, sleep, exercise and exposure to toxins, and internal forces such as motivation, hormones, enzymes, vitamins and neurological connections. Your internal forces are affected by external forces acting on your body. Essentially, this means you become what you do each day. The more you move, the easier it becomes to move, and vice versa. Children experience the same phenomena. Eating junk food, plastered in front of a computer screen and sleep deprived, it's difficult to scrape together enough energy to get up and get moving. With better food choices and sufficient sleep, you and your children may likely experience better health, more energy, greater motivation to move and exercise and a better mood. Sleep deprivation has been linked with poor cognitive performance, increased food consumption, depressed mood and short-term memory loss. Fernando Gómez-Pinilla, Ph.D., a University of California Los Angeles professor of neurosurgery and physiological science who has spent years studying the effects of food, exercise and sleep on the brain, was quoted in a press release from UCLA, saying: "Food is like a pharmaceutical compound that affects the brain. Diet, exercise and sleep have the potential to alter our brain health and mental function. This raises the exciting possibility that changes in diet are a viable strategy for enhancing cognitive abilities, protecting the brain from damage and counteracting the effects of aging." A combination of better food choices and quality sleep may help give you and your child more energy to exercise and enjoy the benefits to your good health.

## **Benefits to Exercise Include Cognitive Improvements**

In this video I talk about the benefits of HIIT, similar to the FFAB researchers used in the study for children. These exercises help both children and adults, making it easier for you to exercise right alongside

your children. An extensive review of the literature proves what many parents have known for years. The more physically active your child is, the better they do in school. You may have also experienced this same effect of focus and clarity when you take a brisk afternoon walk. There are several hypotheses of why this happens, but at this point, researchers have not identified the underlying process. Improved cognition may happen as a result of increased blood and oxygen flow to your brain, increased levels of norepinephrine and endorphins with a reduction of stress and an improvement of mood or an increase in growth factor that may help to create new nerve cells and support synaptic plasticity. In a study performed in a Naperville school near Chicago, researchers demonstrated remarkable results in students who participated in physical activities before class each morning. The students also had access to exercise bikes and balls throughout the day. The results were resoundingly positive, with reading scores doubling and math scores up 20-fold. Exercise has even more benefits for your children, including:

✓ Reduced risk of diabetes and pre-diabetes	✓ Improved sleep	✓ Stronger bones and muscles
✓ Reduced restlessness or hyperactivity; helps decrease symptoms of ADHD	✓ Improved immune system function	✓ Improved mood and reduced risk of depression
✓ Improved weight management	✓ Increased energy levels	✓ Increased potential exercise habit continues into adulthood