Pros and Cons of Later School Start Times

BY LEIGH ANN MORGAN

Many teens dream of sleeping in each day, but it has nothing to do with laziness or lack of ambition. As children move into adolescence, their sleep cycles change. Adolescents naturally stay up later and get up later because of how their bodies release melatonin, a hormone that regulates sleep. Several studies show that teens cannot get out of this melatonin-induced sleep mode until at least 8:00 a.m., making later school start times desirable. Changing school start times has several benefits, but administrators must also consider the drawbacks of changing a familiar schedule.

Pros

Reduced Risk of Teen Crashes

Teen drivers have several factors against them when it comes to their risk of motor vehicle accidents. Some teens drive while talking with friends or texting on their cell phones, taking their attention away from the road. Others are not mature enough to make good driving decisions, increasing the risk of accidents. What many people do not know is that sleepiness is a major factor in teen crashes. In fact, AAA says that drowsiness contributes to more than 100,000 crashes per year. When teens drive while they are drowsy, they have slowed reaction times and have a hard time paying attention to the road. Adolescents are especially at risk for driving drowsy because of early school start times. Moving school start times to at least 8:00 would give teens the opportunity to get more sleep each night.

Improved Academic Performance

It is clear that sleep deprivation has a significant effect on academic performance. The American Academy of Sleep Medicine says that a lack of sleep impacts performance by reducing concentration, creating attention deficits, slowing reaction times, increasing distractibility, impairing decision-making skills and causing forgetfulness. AASM also says that sleep-deprived people are more prone to errors. These effects can have a serious impact on test scores and on the grades students receive on class projects and papers. James Maas, Ph.D., a leading expert on sleep, says that trying to educate teenagers so early in the morning does no good. Even if lectures and activities are interesting and stimulating, the urge to sleep still reduces alertness, memory and understanding.

In 1998, Amy Wolfson, Ph.D. and Mary Carskadon, Ph.D. surveyed more than 3,000 high school students. They found that those who reported poor grades (C, D or F) reported getting 25 fewer minutes of sleep than the students who reported getting A's and B's. The poor performers also went to bed approximately 40 minutes later than the students who reported getting good grades. A study from the University of Minnesota confirmed that later school start times can have a positive effect on academic performance. Investigators studied two school districts that changed their start times to 8:30 a.m. and 8:40 a.m. When compared with students attending schools with earlier start times, the students reported getting higher grades. They also had fewer depressive feelings, got more sleep on school nights and had less daytime sleepiness.

Fewer Mood Changes

Moody teenagers may not have depression or other psychological disorders. They may be suffering the ill effects of sleep deprivation caused by starting school too early. AASM reports that sleep deprivation leads to anxiety, irritability, lack of motivation and other symptoms of depression. Delaying school start times can reduce these symptoms, as demonstrated by the results of the University of Minnesota study.

Improved Physical Health

Early school start times do not just affect mental ability and mood. They also have an impact on physical health. Sleep deprivation increases the risk for diabetes, obesity and high blood pressure. Researchers believe that a lack of sleep alters hormone levels and puts additional stress on the body. Early school start times may contribute to diabetes and obesity in several ways. When teens get up very early for school and do not go to bed until late at night, they may eat more than they would if they got an adequate amount of sleep. Additionally, tired students may reach for foods high in sugar or caffeine, hoping that they will get a temporary boost. This puts them at risk for serious health problems.

Cons

Parent Work Schedules

One of the biggest concerns about changing school start times is parent work schedules. When school starts at 7:30 in the morning, most parents can see their teens off to school before going to work at 8:30 or 9:00. If school districts change start times to 8:00 or 8:30, parents will not be able to drive their kids to school and still get to work on time. This is a problem especially for parents of young children, as young kids need supervision while getting ready for school and waiting for the school bus. For teens, later school start times may lead to increased responsibility, as parents may have to go to work before school starts. This means teens will have to get themselves up, prepare breakfast and head to school on their own.

Transportation Logistics

Another issue related to changing school start times is bus schedules and other transportation logistics. Many school districts use the same buses for elementary school students as they do for high school students. If a bus driver has to drop students off at the high school and then pick up young kids for elementary school, delayed school start times would affect this schedule. School districts would need to delay start times for the elementary schools or invest in hiring additional bus drivers to transport the high school students.

Effects on Extracurricular Activities

Some students, parents and administrators are concerned about later school start times because of the possible impact on extracurricular activities. Students who participate in sports, music groups, service learning clubs and other organizations typically meet for several hours after school. If school districts change their start times, these activities will be pushed to later in the day. This would make it difficult for students to participate and still have enough time to study, complete homework assignments, participate in social activities and still get to bed at a reasonable hour.

7 Serious Dangers Sleep-Deprived Teens Face

By Amy Morin Teens Expert

Most teens aren't getting the 9 ¼ hours of sleep recommended by doctors. According to the 2009 Youth Risk Behavior Surveillance Survey, only 31% of high school students reported getting at least 8 hours of sleep per night. Late evening sporting events, long hours of homework, and part-time jobs can interfere with a good night's sleep. For other teens, video games, social media, and web surfing prevent them from going to sleep at a reasonable hour.

The main factor that contributes to teens being night owls may be biological, however. Puberty tends to program teens to stay up later. Changes in hormones mean that many of them aren't ready to go to sleep until at least 11 p.m. As a result, many of them aren't able to squeeze in enough sleep before the alarm goes off for school each morning.

Chronic sleep deprivation can have serious consequence. For many teens, the cumulative effects of sleep deprivation creep up on them slowly over time. Here are the biggest risks sleep deprived teens face:

1. Increased Risk of Traffic Accidents

Over 100,000 car accidents occur each year when drivers falling asleep at the wheel and fatigue-related accidents are most common in drivers under the age of 25. In addition to the risk of falling asleep while driving, chronically sleep deprived teens may be inattentive and have slower reaction times which can increase their chances of being in an accident. Driving while tired is one of the 12 biggest dangers to teen drivers.

2. Physical Health Problems

Sleep deprivation can interfere with a teen's development and overall physical health. Teens who don't get enough sleep are more likely to complain about health problems, like stomachaches, headaches, and back pain. Teens who aren't getting enough sleep are also at a higher risk of high blood pressure.

3. Impaired Memory and Learning

Students who receive below average grades are likely to get 25 minutes less sleep and go to sleep 40 minutes later than students who receive above average grades. Teens who aren't getting enough sleep are more likely to fall asleep during class and they're likely to experience difficulty concentrating and paying attention. Sleep deprivation can lead to memory impairments that interfere with their education and overall academic achievement.

4. Greater Risk of Obesity

Many research studies have linked obesity to sleep deprivation in children and adults. A lack of sleep can disrupt the balance of hormones that control appetite. Sleep deprivation can also decrease motivation and energy, which reduces a teen's motivation to exercise.

5. Low Life Satisfaction

Teens who aren't getting enough sleep are more likely to report less satisfaction with their lives. They may have less energy to participate in leisure activities and they may experience mood swings and irritability that interfere with their relationships.

6. Increased Mental Health Problems

Sleep deprivation places teens at an increased risk of major depression. Depression tends to interfere with sleep which can set teens up for a perpetuating cycle. A lack of sleep has also been associated with higher incidents of suicidal ideation, difficulty managing anger, higher rates of anxiety.

7. Higher Rates of Substance Abuse

A lack of adequate sleep can cloud a teen's judgment and increase the chances that a teen will abuse drugs or alcohol. It can also lead to other behavior problems and impulse control issues.

Sleep deprivation and teens: 'Walking zombies'

By Valerie Strauss

This was written by Vicki Abeles, director of the documentary "Race to Nowhere," and Abigail A. Baird, associate professor of psychology at Vassar College in Poughkeepsie, NY. Baird's primary area of research focuses on the neurophysiology of adolescence.

By Vicki Abeles and Abigail Baird, Ph. D

This coming week most of us will lose an hour of sleep as we set our clocks ahead for <u>Daylight Saving Time</u>. But imagine if you lost an hour of sleep — or even more — every night of your life. That's what it's like for our nation's teens, who are facing an epidemic of sleep deprivation.

How bad is it? "Every single high school student I have ever measured in terms of their alertness is a walking zombie," says Cornell sleep expert James Maas. It's a description that will sound familiar to the parents of pretty much any teenager.

According to the <u>National Sleep Foundation</u>, American teenagers require about 9-1/4 hours of sleep a night, yet only 8 percent of them are getting it. A recent study published in the *Journal of Adolescent Health* found that as much as two-thirds of high school students get less than seven hours of sleep nightly.

If it was just a matter of early-morning fogginess this wouldn't be a big deal, but <u>sleep deprivation in teens</u> has been linked to lower levels of Human Growth Hormone, which is integral to a teenager's physical growth, brain development, and maturation of their immune system, as well as higher rates of anxiety disorders and depression. A 2010 study in the journal *Sleep* found that teenagers who go to bed after midnight are 24 percent more likely to suffer from depression and 20 percent more likely to consider harming themselves than those who go to bed before 10:00 p.m.

As parents we may applaud a high-schooler who has the dedication to stay up until 1:00 a.m. doing homework, but research shows that teens who don't get enough sleep perform less well during the school day. The student who revises her essay long into the night to get an A+ in English will grasp less of what's being taught the next day in Algebra.

In a study of fourth and sixth graders conducted by sleep researcher Dr. Avi Sadeh at Tel Aviv University, a mere one-hour nightly loss of sleep was "equivalent to the loss of two years of cognitive maturation and development." In other words, when deprived of just one hour of sleep each night, a sleep-deprived sixth-grader performed like a fourth grader. That's not progress.

Not only is too little sleep affecting teens, but so is their means of staying awake. Many rely on coffee, caffeinated soda, and energy drinks. Some take Adderall or amphetamines. In Massachusetts and New York they can now stay up with the help of a lipstick-sized canister of inhalable caffeine. *The Journal of Pediatrics* recently concluded that energy drinks are "never appropriate for children or adolescents," citing the harmful "neurologic and cardiovascular" impact of caffeine on teenagers.

So how can we help stop our kids from racing on empty and losing years of <u>essential sleep</u>? The first step is to realize how much we contribute to perpetuating a work ethic that celebrates pushing ourselves and our children to the limits. We need to treat sleep as essential to our teenagers' well-being and success by teaching them that sleep is as important as nutrition, exercise, studying, and free time. Over the past several years we've created national guidelines for eating and exercise, shouldn't we do the same for sleep?

We can also make changes in our schools, like advocating for later high school start times. An adolescent's brain works on a different circadian rhythm than that of adults — theirs thrives with later wake-up times. After the start time at a high school in Edina, Minnesota, was changed from 7:25 a.m. to 8:30 a.m., verbal SAT scores for the top 10 percent of students increased by several hundred points. The increase could not be attributed to any variable other than later start times.

Schools should also adopt block schedules and bring back study halls, both of which reduce the number of classes students must prepare for each day and give them more in-school time to complete academic assignments rather than requiring them to put in a grueling "second shift" after school.

So as Daylight Savings Time kicks in and we lose our annual hour of sleep, let's make a pledge to help our children get the sleep they need to be happy, healthy, and successful in school and in their lives.