

Teen Sleep Needs and Algonquin High School Start Time

By Mary Hamaker

Teens today face more competition than ever to get into the colleges of their choice. To address this competition, teens feel intense pressure to take honors and AP classes and to participate in athletics and other extra-curricular activities to enhance college applications. Students at Algonquin Regional High School certainly face this competition and pressure. Algonquin students are fortunate to have a plethora of challenging academic offerings, athletics and other extra-curricular programs from which to meet these demands. However, the combination of homework and extra-curricular activities, coupled with a 7:20 a.m. school start time, collide with teens' sleep requirements and natural circadian rhythms. As described below, the consequences of too little sleep substantially interfere not only with academic performance, but raise a host of other health problems. It is paramount that we place the health of our children first so that they have the best opportunity to achieve to their true potential.

According to the American Academy of Pediatrics, teens require about nine hours of sleep per night. Sleep researchers have found that adolescents' brains do not emit melatonin, the natural chemical that signals the brain to sleep, until about 11:00 p.m. Going to bed at 11:00 p.m. and sleeping for nine hours, until 8:00 a.m., is in conflict with Algonquin's 7:20 a.m. start time. In fact, students must arise in some cases before 6:00 a.m. (right when adolescents are generally in the deepest part of their sleep cycle) to catch 6:25 a.m. busses, which means that students should go to bed no later than about 8:45 p.m. About now, teens and parents of teens reading this article are laughing incredulously. The demands of homework and extra-curricular activities mean that many of Algonquin's students are just starting homework at 8:00 p.m. or later, and often they do not finish until well after 10:00 p.m. Dr. Charles Gobron, Superintendent of the Northborough-Southborough School District, conducted an informal survey of students to find out how much sleep Algonquin students get per night and was dismayed to learn that the students in the survey got, on average, only about three to four hours of sleep per night.

There are severe consequences for teen sleep deprivation. These include drowsiness and fatigue during the school day, reduced ability to solve complex problems, lack of ability to concentrate, emotional and mood swings, impulsive behavior, poor reaction times, increased anxiety and depression, substance abuse, increased automobile accidents, lower grades, tardiness and attendance problems, obesity and metabolic problems, sports injuries, and lower self esteem. So-called "binge sleeping" on the weekends has a negative effect on circadian rhythms and does not make up for lost sleep during the school week.

Some schools in Massachusetts, including Sharon, Duxbury, North Andover, Medway, Nauset, Hingham and others, have recognized this important health and academic problem. These schools have addressed the issue by moving the high school start time later to accommodate the natural sleep cycle of teens. Some Massachusetts towns that have addressed this sleep issue have done so by having the elementary school start first

(recognizing that younger children go to bed earlier and wake up earlier), followed by the middle school, with high school starting last. With the same pool of busses transporting all of the children to these different facilities, the towns were able to keep the high school start time switch revenue-neutral by swapping the elementary school and high school start times, and then moving all schools' start time a bit later to minimize elementary students at bus stops in the dark during November through January.

Schools have achieved dramatic, positive results from moving high school start time later to better align with adolescent sleep needs. For example, Nauset High School now starts at 8:35 a.m. and ends the academic day at 3:00 p.m. In a phone interview, Principal Tom Conrad stated that, since making the switch to a later start time, the school has documented a 30% reduction in tardiness and a 50% reduction in D and F grades. Ninety-five percent of Nauset's teachers and students report feeling more rested and better able to tackle the day. Sharon High School, which now starts at 8:05 a.m. and ends the academic day at 2:40 p.m., reported that neighboring schools were very accommodating with athletic competition schedules. St. George's High School in Rhode Island moved its start time from 8:00 a.m. to 8:30 a.m. with substantial health benefits. Students at St. George's slept on average forty-five minutes longer per night. The percentage of students getting less than seven hours of sleep decreased 79.4%, and students reporting sleep of at least eight hours per night increased 16.4% to 54.7% of the high school population. The student health center also reported a drop in the number of students seeking help for depression and anxiety. Several schools in Minnesota made this switch in the 1990s, and researchers conducted an extensive study of the effects, finding, among other things, higher academic performance, reduced health problems and fewer car accidents. Some school officials have indicated that merely changing high school start time to 8:00 a.m. or later can be more effective in improving academic performance than more expensive measures, such as reducing class size.

There are important logistical issues to address in making such a change. The Algonquin Parent Teacher Association Exploratory Committee is looking for more parents who are willing to help work through these logistics to create a proposal for presentation to the School Committee. All Northborough and Southborough parents are welcome to participate. Please see the project website, created by Julia Lewkowicz (Algonquin class of 2015), at Algonquistarttime.weebly.com for more information.