

Adolescent Health and Why We Should Start School Later in Belmont

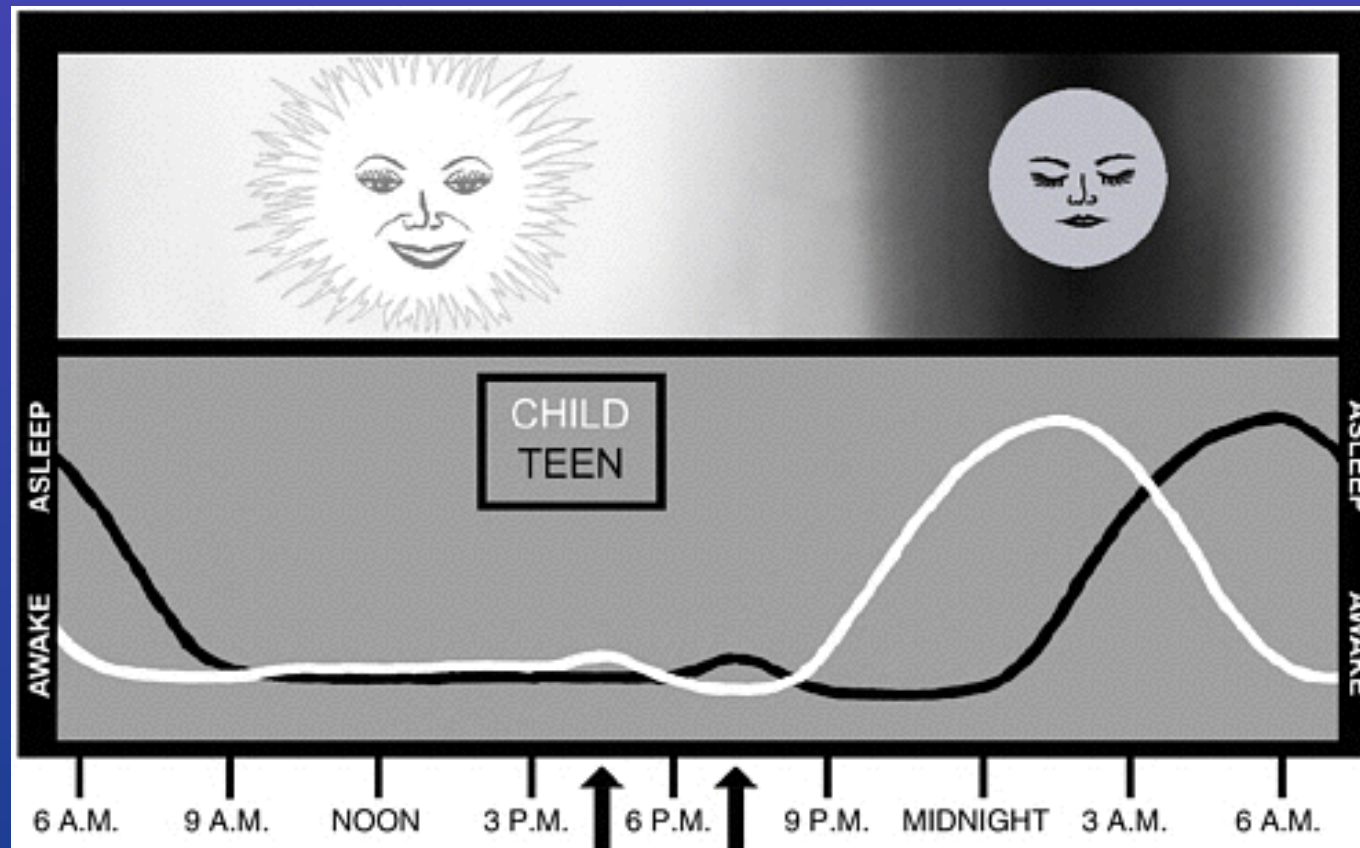


Like food and water,
sleep is essential to
survive and thrive.

“The American Academy of Pediatrics recognizes insufficient sleep in adolescents as an important public health issue that significantly affects the health and safety, as well as the academic success, of our nation’s middle and high school students” AAP Policy Statement

Sleep and Adolescents

- Puberty shifts circadian rhythms about 3 hours later
- Adolescents start feeling sleepy at 11 PM or even later



- Once puberty hits, it just about impossible to fall asleep at 9PM.
- Waking up at 6AM for a teen is like an adult getting up at 4

The Problem:

Early School Start Times
+
shifted sleep cycle
=
chronically sleep deprived teens

1. Not enough sleep (8-9.5 hours required)
2. Not enough quality sleep: adolescents are forced awake when their natural rhythms are at a low ebb

Sleep deprived teens are:

- More likely to develop obesity and diabetes
- Have less robust immune systems
- More likely to feel hopeless, become depressed or suicidal.
- Less able to tolerate even normal levels of stress: increased irritability and aggressiveness
- More vulnerable to substance abuse & risk taking (including risky sexual behavior)
- More likely to be injured during sports
- Problems with attention, focus & problem solving
- More likely to be involved in a traffic accident
- More aggressive forms of cancer

Traffic accidents and suicide

- Causes of death among 12-19 year olds: traffic accidents, homicide and suicide.
- Motor vehicle crashes are the leading cause of death for U.S. teens.
- Roughly six teens per day die in traffic accidents
- 11% of adolescent deaths due to suicide
- Sleep deprivation is known risk factor in suicide and car crashes.
- Drowsy drivers are similar to drunk drivers, and a concern to the entire community

Groups Impacted Severely

- Natural night owls
- Students with attention/focus problems
- Students with significant commutes (e.g. METCO students)
- Athletes: less than peak performance, more susceptible to injuries, complications diagnosing concussions

Start School Later!

“a substantial body of research has now demonstrated that delaying school start times is an effective countermeasure to chronic sleep loss and has a wide range of potential benefits to students with regard to physical and mental health, safety, and academic achievement.”, AAP Policy Statement 2014

- American Academy of Pediatrics
- Centers for Disease Control
- Massachusetts Medical Society
- National Association of School Nurses
- Society of Pediatric Nurses
- American Thoracic Society
- American Academy of Child & Adolescent Psychiatry
- National Sleep Foundation
- American Psychological Association
- Education Commission of the States

Common Misconceptions

- Kids will go to bed later if school starts later
- Numerous studies show that if school starts later kids will sleep longer and get better quality sleep. These studies form the bedrock of the medical consensus.
- Turn off all electronics and social media: important, but not enough.
- Kids need to get used to early starts: good training for the “real” world
- Circadian rhythms change again in adulthood

Middlesex League Superintendents

6.1.b

Joint Statement on Later Start Times for High Schools

"Everybody learns better when they're awake."

(Mary Carskadon, The Atlantic, August 17, 2015)

The purpose of this collaborative statement is not to make a case for later high school start times. The research is clear on this topic that later start times best support the social and emotional needs of our high school students. The Middlesex League Superintendents collectively wanted to express our clear support for later high school start times. Our intention is to commit to a deadline and to the necessary consensus building required to make a change in long-standing practice. Doing what is right for adolescents will mean changing adult schedules and behaviors. Ultimately, the choice to change will distill down to what communities value most.

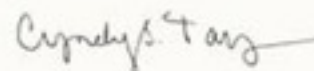
To this end, our League goals are as follows:

- High School start times between 8:00 a.m. and 8:30 a.m. for all Middlesex League High Schools by the start of the 2018-2019 school year. (Current start times range from 7:30 a.m.-8:00 a.m.)
- After-school competitions will be scheduled so that students do not routinely miss academic time

The expression of our intentions and our timetable should provide ample opportunity to address all stakeholder concerns and to reallocate existing funding or commit to the new funding that may be needed to implement later start times. Moreover, by setting a timeline for Fall 2018, we believe districts, families, and organizations that oversee athletic competitions, academic competitions and other student activities will have sufficient time to prepare for a change that will benefit all our students.

We hope this joint statement is the first of many as we work together across our respective communities to implement practices that are in the best interest of children.

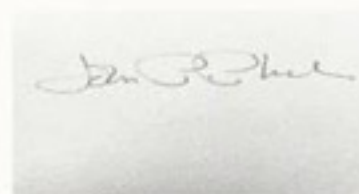
Sincerely,



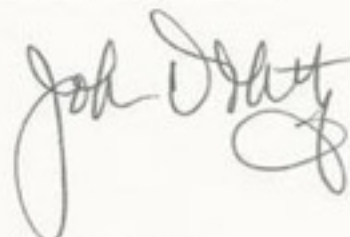
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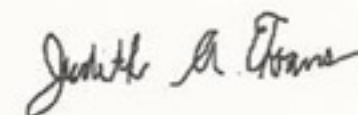
Mary DeLai
Wilmington Public Schools



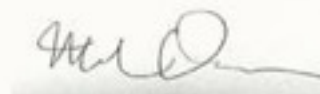
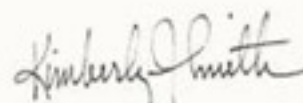
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The Frontier Fields – serendipitous science



- Intra-cluster starlight: stars stripped out of galaxies floating in intergalactic space

- lensed supernova! The SN occurred in a galaxy far behind the lens

