

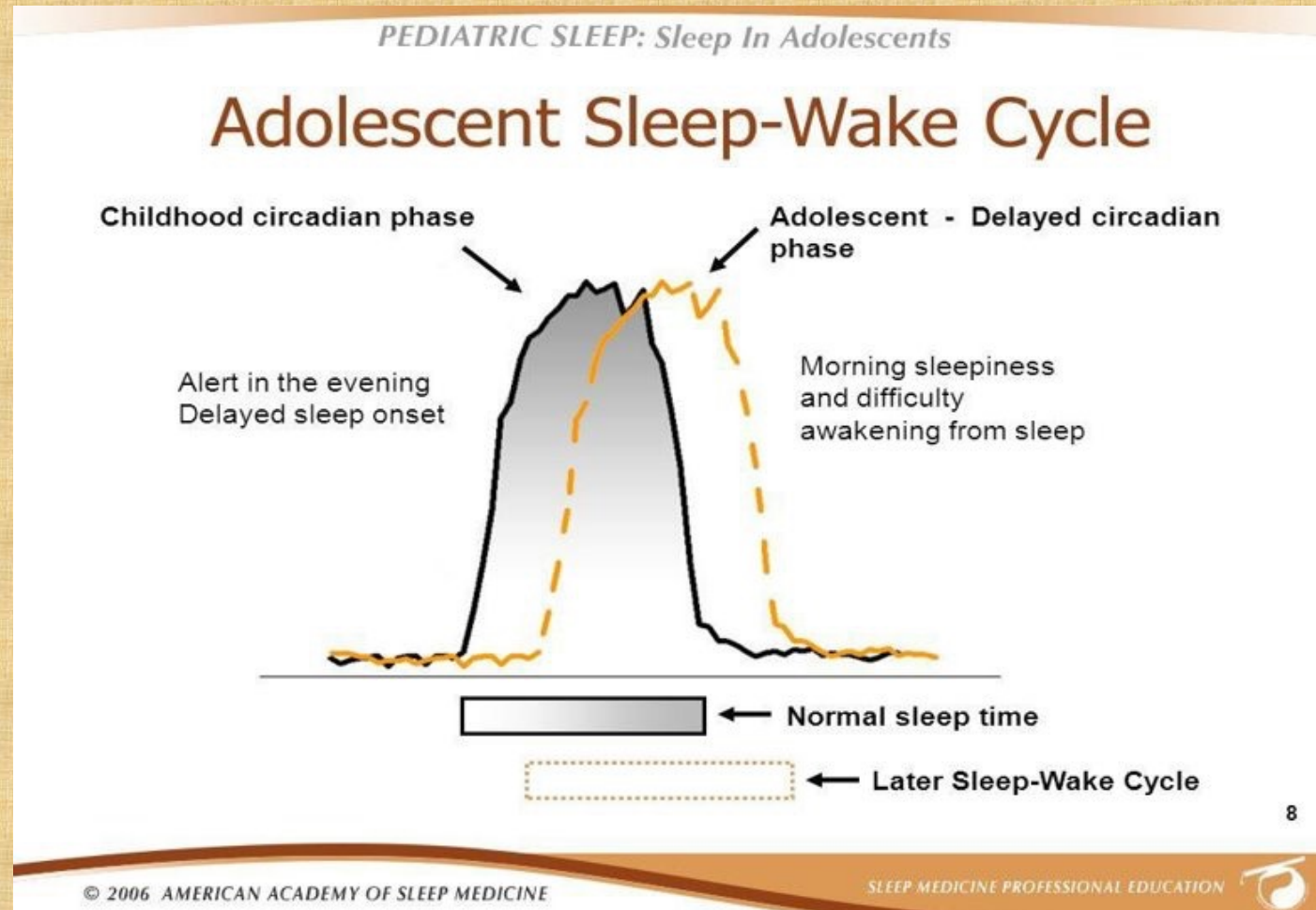
Bedford Board of Health

Sleep Friendly School Start Times for Adolescents

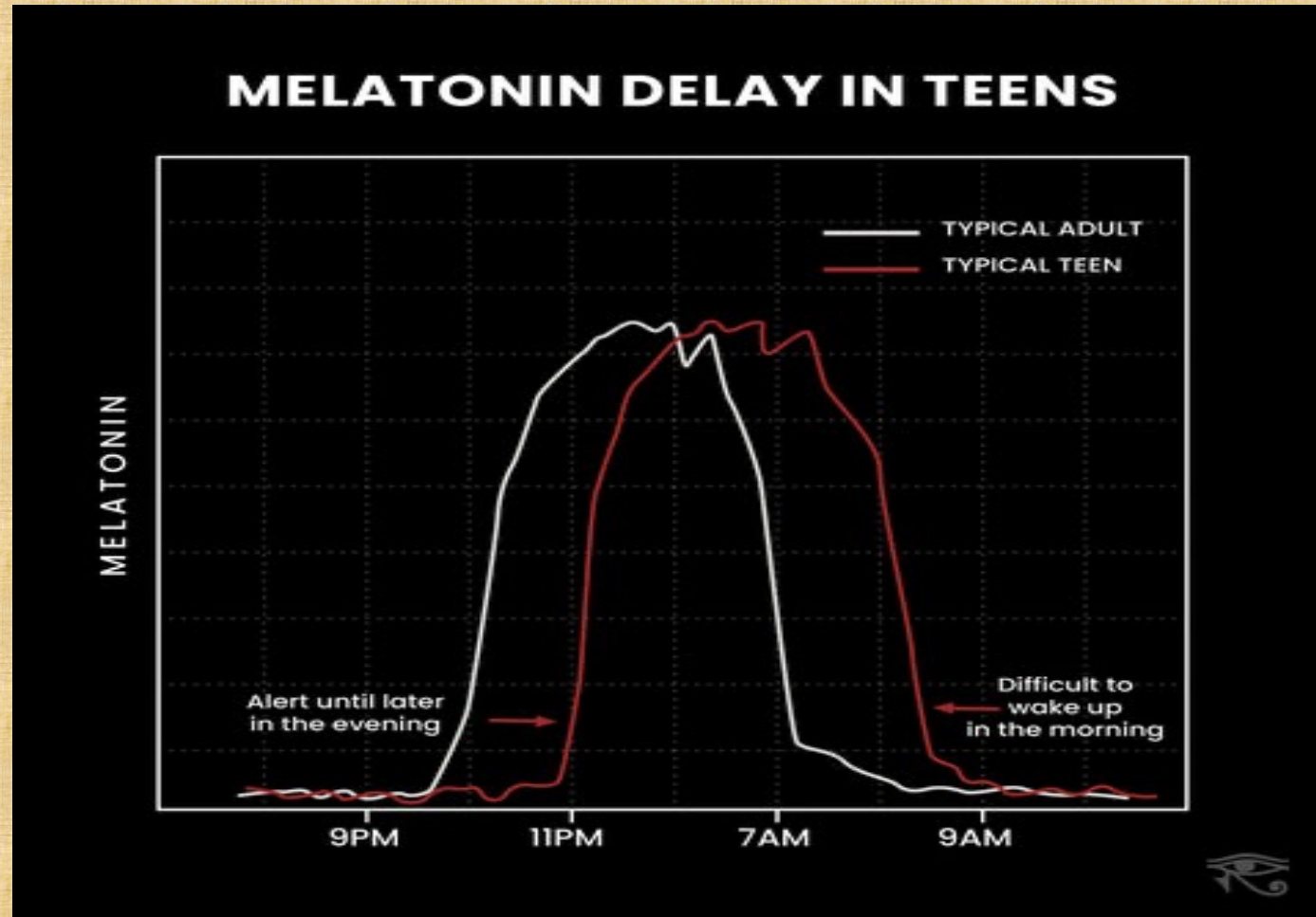


November 8, 2022

Puberty creates a temporary change in circadian rhythm



Adolescent sleep cycles are also later than adult sleep cycles





American Academy of Pediatrics

School Start Times for Adolescents (2014)

- Insufficient sleep in adolescents is an important public health issue significantly affecting the health and safety, as well as the academic success, of middle and high school students.
- Earlier school start times (i.e., before 8:30 AM) is a key modifiable contributor to insufficient sleep, as well as circadian rhythm, in this population.
- Delaying school start times is an effective systemic countermeasure to chronic sleep loss and has a wide range of substantial benefits to students with regard to physical and mental health, safety, and academic achievement.

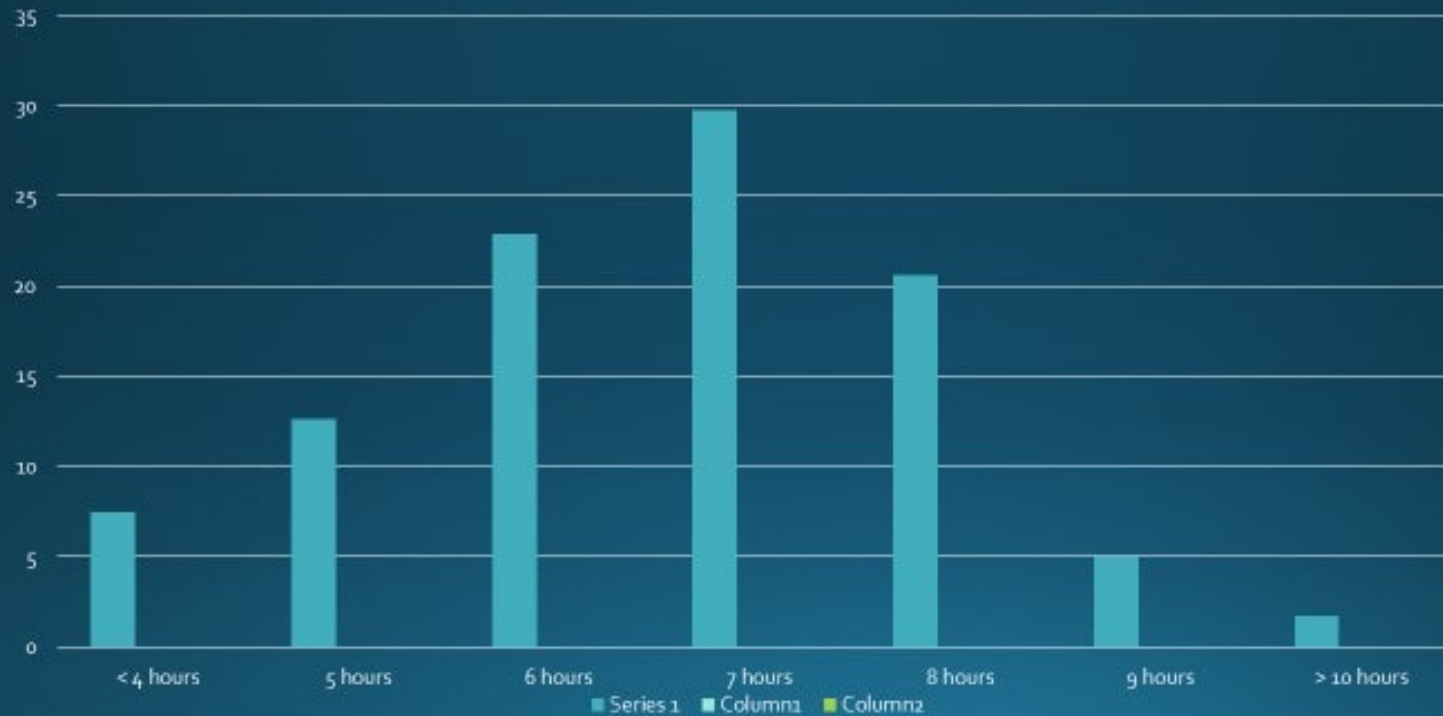
Sleep Needs of Middle School and High School Students



YRBS: Average Sleep on School Nights

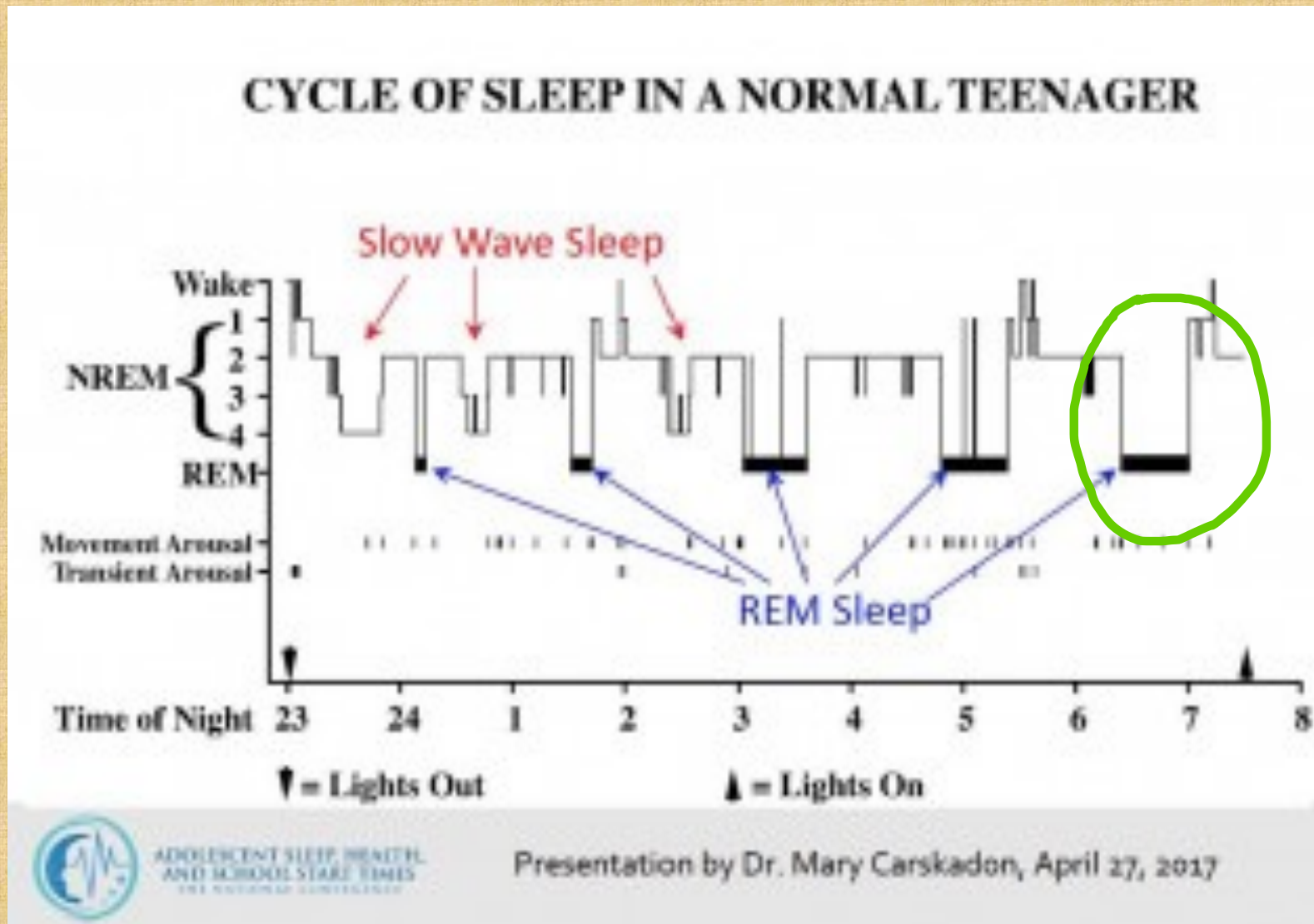
43% of teenagers reported getting an average of six or fewer hours of sleep each school night

Average Sleep on School Nights—US High School Students



Source: YRBS 2015

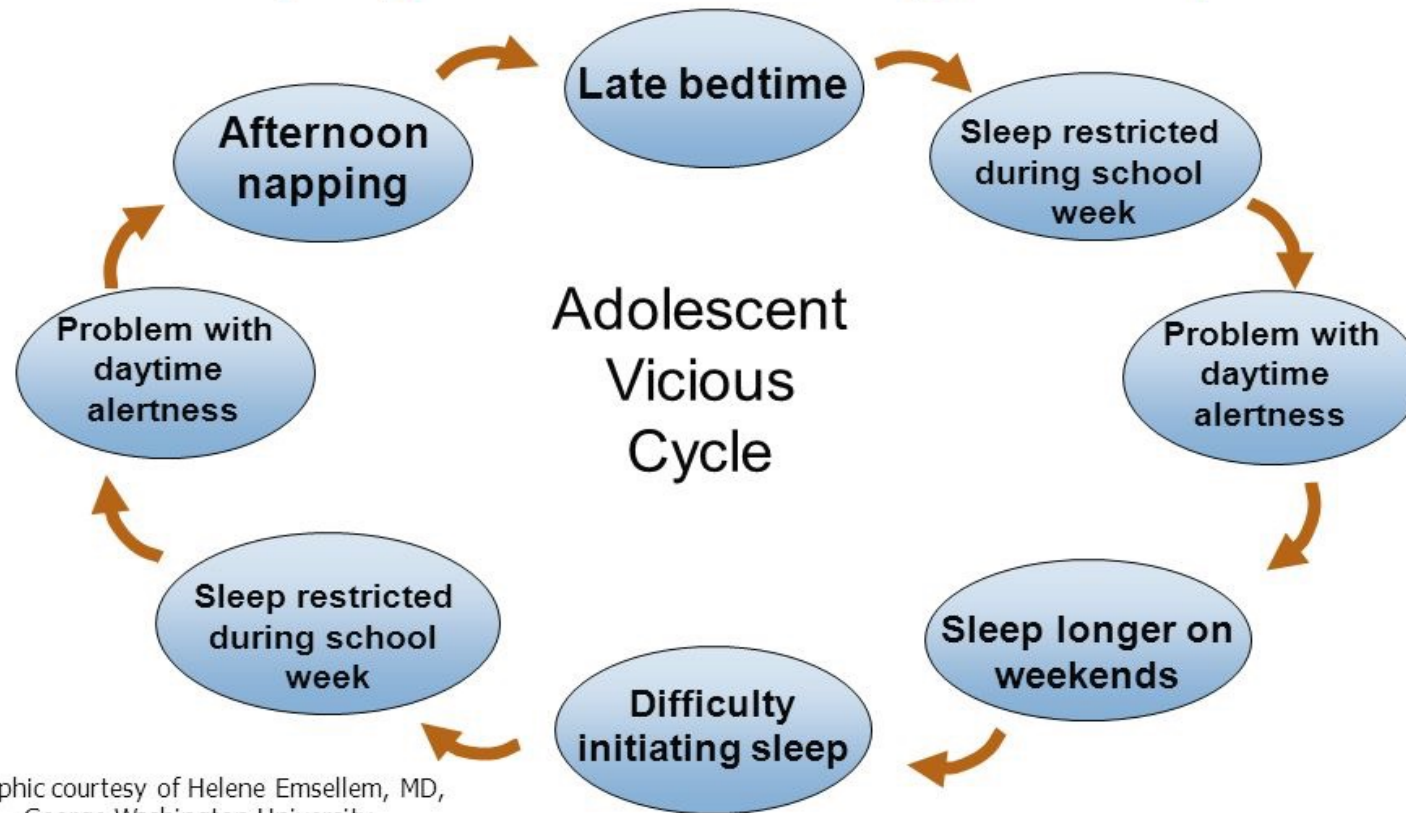
Adolescent Sleep Cycle



Trying to catch up doesn't work

PEDIATRIC SLEEP: Sleep In Adolescents

Trying to Get Enough Sleep



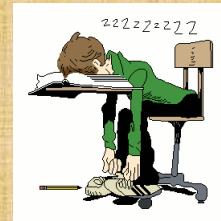
Graphic courtesy of Helene Emsellem, MD,
George Washington University.

11



Adverse Outcomes Associated With Chronic Insufficient Sleep

- **Impaired Cognition:** limits ability to learn, listen, concentrate and problem solve
- **Physical Health:** obesity, cardiovascular disease, impaired immune function, sports injuries, reduced life expectation
- **Emotional Health:** mood disorders, irritability, depression, anxiety, hopelessness
- **Risky, Compulsive Behaviors:** substance abuse, drowsy driving, aggressive behaviors
- **Daytime Sleepiness:** falling asleep in class



Improvements with Later School Start Times

- **School Performance:**

- improved grades, test scores, learning attitude, attendance
- decreased tardiness, absenteeism, disciplinary actions



- **Increased Sleep:** bedtimes stay about the same

- **Safety:** 65% - 70% reduction in car crashes

What do medical and public health organizations have to say?

Professional medical and public health organizations have reviewed all of the available sleep research on adolescent health. They have recommended a start time for all middle/high schools.



**Recommend middle/high school start at
8:30am or later**

American Academy of Child & Adolescent Psychiatry
American Academy of Pediatrics
American Academy of Sleep Medicine
American Medical Association
American Psychological Association
American Sleep Association
American Thoracic Society
Centers for Disease Control
Massachusetts Medical Society
National Association of School Nurses
National Institutes of Health
National Parent Teacher Association
National Sleep Foundation
Sleep Research Society
Society of Behavioral Medicine
Society of Pediatric Nurses

**Recommend middle/high school start
before 8:30am**

No organization has found that starting middle or high schools before 8:30am is safe or healthy for our children.

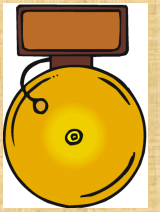


Masconomet Chapter | Massachusetts
health, safety and equity in education

MIAA Dual County Division 4 - School Start Times

<u>School District</u>	<u>High School</u>	<u>Middle School</u>
Acton-Boxborough	8:07 AM	8:00 AM
Bedford High School	7:45 AM	7:40 AM
Boston Latin School	7:45 AM	variable
Cambridge Rindge & Latin	8:35 AM	8:55 AM
Concord-Carlisle	8:00 AM	8:10-8:25 AM
Lincoln-Sudbury	8:25 AM	7:55 AM
Newton South	9:00 AM	8:20 AM
Waltham	7:30 AM	7:55 AM
Wayland	8:35 AM	8:40 AM
Westford	8:35 AM	9:05 AM
Weston	7:45 AM	7:45 AM

MA School Districts with Sleep Friendly Start Times



<u>District</u>	<u>Change Years</u>
Dover-Sherborn Public Schools	2020-2021
Lincoln-Sudbury Regional High School	2020-2021
Newton Public Schools	2020-2021
The Public Schools of Northborough and Southborough	2021-2022
Norwood Public Schools	2022-2023
Watertown Public Schools	2020-2021
Wayland Public Schools	2019-2020
Weston Public Schools	2018-2019

*"Common sense to improve student achievement that too few have implemented:
let teens sleep more, start school later[.]"—[Arne Duncan](#),
U.S. Secretary of Education, via Twitter, [@arneduncan](#) (Aug. 19, 2013)*



MA Legislation – HS & MS Start Times

- **MA H3980. Resolve authorizing a study of starting times and schedules.**

Pending: House Ways and Means Committee (7/21//21)

- **HD5140. An Act relative to school start times for middle and high school students.**

Referred to House Committee on Rules (6/10/22)

Modeled on the California law. HD5140 stipulates that:

- The school day for all high schools, including high schools operated as charter schools, shall begin no earlier than 8:30 a.m.
- The school day for all middle schools, including middle schools operated as charter schools, shall begin no earlier than 8:00 a.m.

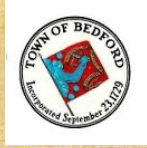
“All of the studies of adolescent sleep patterns in the United States are showing that the time at which teens generally fall asleep is biologically determined — but the time at which they wake up is socially determined.”

--- [Gideon Dunster](https://www.washington.edu/news/2018/12/12/high-school-start-times-study/), Lead Researcher, University of Washington study on school start times <https://www.washington.edu/news/2018/12/12/high-school-start-times-study/>

A thought to ponder...

“Schools are not solely responsible for the perfect storm of teen sleep, but they can make a huge difference by moving to a later start time. The result would be happier, healthier, more attentive, and better performing students in high school.”

—[Mary Carskadon](#), Ph.D., Professor of Psychiatry & Human Behavior, Brown University School of Medicine, Director of Chronobiology and Sleep Research at Bradley Hospital. ([Carskadon](#), [For better student health, start school later](#) (Sept. 5, 2012) Brown Univ.)



Board of Health Recommendation

Key Considerations:

- Insufficient sleep in adolescents nationwide is recognized as a serious public health issue that negatively impacts students' physical and mental health, safety and academic achievement;
- Evidence strongly implicates earlier school start times (i.e., before 8:30 AM) as a key modifiable contributor to insufficient sleep;
- Delaying school start times has been shown to be an effective research-based mitigation strategy to prevent chronic sleep loss in adolescents, and
- The current start times at our Middle School and High School are early and do not align with what research identifies as appropriate and healthy for young adolescents

The Bedford Board of Health recommends that the school start times for Bedford High School and the John Glenn Middle School be changed to align with a recommended start time of no earlier than 8:30 AM.

Questions?

