

Teens and Sleep

School Start Times

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Recommending Middle and High Schools Start after 8:30 am

American Medical Association

American Psychological Association

Centers for Disease Control and Prevention

American Academy of Pediatrics

National Education Association

American Academy of Sleep Medicine

National Association of School Nurses

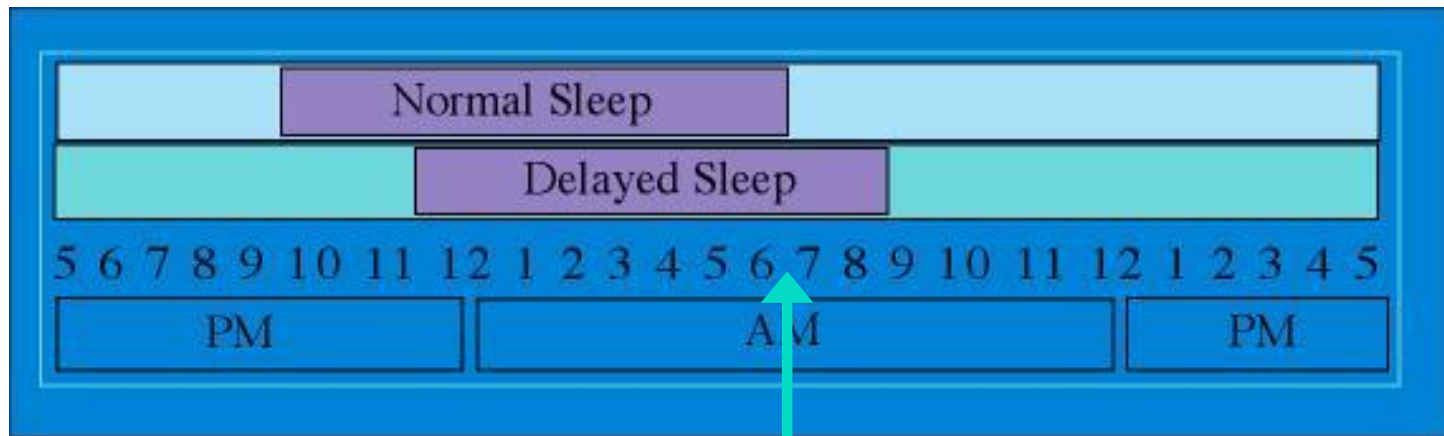
National Sleep Foundation

Society of Behavioral Medicine

League of Women Voters

Adolescent Brain:

Delayed Sleep Phase Sleep Schedule



In order to get to school on time, many teens must wake before 6:30 am and shorten their sleep time.

The adolescent sleep pattern runs from about 11 p.m. to 8 a.m. and is “rather fixed.”



“Sending kids to school at 7 a.m. is the equivalent of sending an adult to work at 4 in the morning.”

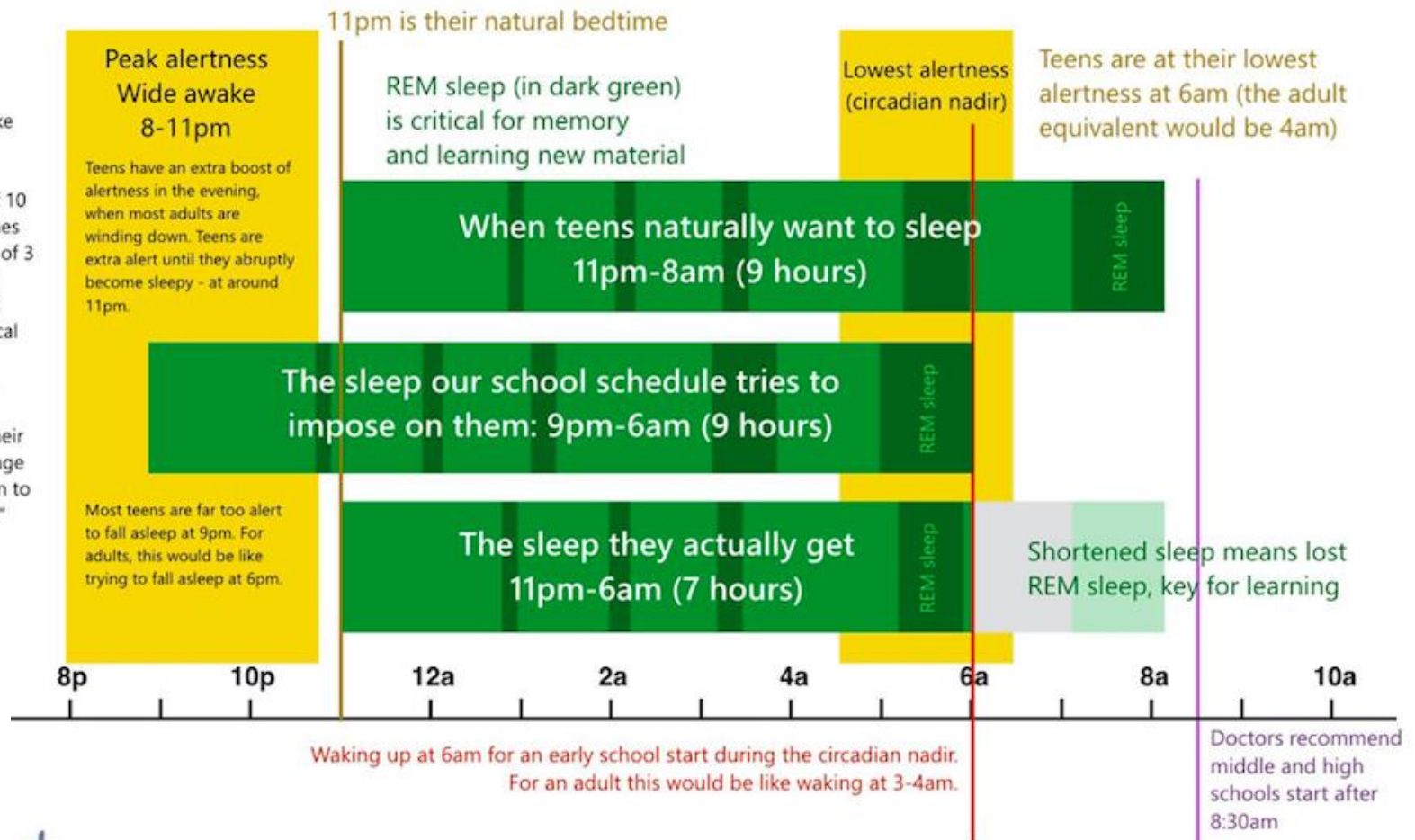
---William Dement, M.D., Sc.D., Ph.D.,
Professor of Psychiatry and Behavioral
Sciences, Stanford University School of
Medicine, Division Chief, Stanford University
Division of Sleep.

Teens end up sleep deprived and REM-deprived

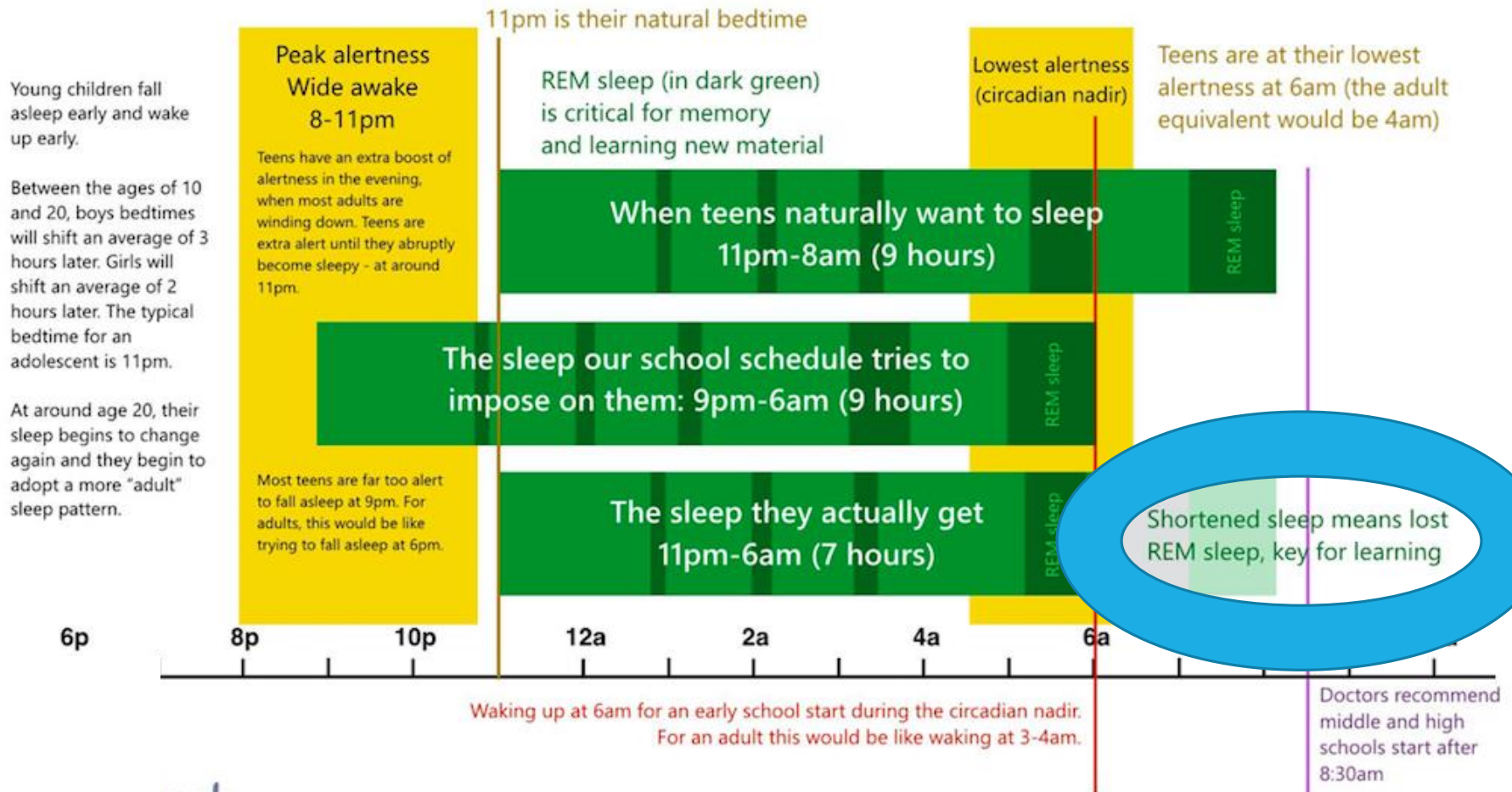
Young children fall asleep early and wake up early.

Between the ages of 10 and 20, boys bedtimes will shift an average of 3 hours later. Girls will shift an average of 2 hours later. The typical bedtime for an adolescent is 11pm.

At around age 20, their sleep begins to change again and they begin to adopt a more "adult" sleep pattern.



Teens end up sleep deprived and REM-deprived



NOT lazy teenagers

So the image of having to drag a teenager out of bed is not about being lazy

They NEED to be asleep from about 11 to about 8

Waking them up at 6 or 7 means you lose critical REM time for learning

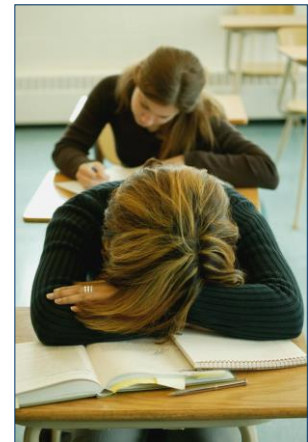
Waking them up at 6 or 7 means you lose critical frontal lobe development

Teens

85% of teens get less than the minimum requirement of 8 ½ hours of sleep

Less Sleep ≠ More Time

Shortened sleep impairs learning, performance, health and safety



Consequences of Sleep Deprivation



Cognitive, social and behavioral performance become impaired.

Poor school performance and lower grades

Tardiness and absence from school

Difficulty remaining alert and paying attention

Reduced ability to concentrate, problem-solve, remember and have a positive attitude

More sports-related injuries

More car accidents

More impulsive behavior including substance abuse

Increased anxiety, depression, thoughts of suicide

Interference with secondary brain development

Later Start Time Studies – Outcomes

- Kids get more sleep
 - They do not just go to sleep later
- No negative effect on extracurriculars including athletics
- No negative effect on homework time
 - Turns out when well rested kids report needing less time to complete homework

Later Start Time Studies – Cognition and Academics

- Attention levels improve
- Some evidence grades and test scores go up

Later Start Time Studies – Mental Health

- Fewer reports of depression
- Less impulsivity
- Less substance abuse

Later Start Time Studies – Behavior

- Higher attendance rates
- Higher graduation rates
- Fewer tardy students
- Students report feeling more motivated

Later Start Time Studies – Physical Health

- Fewer trips to the nurse's office
- Fewer sports injuries
- Better athletic performance
- Fewer car accidents
- More hot breakfast meals consumed

Myth Busters!

Q: Isn't the real problem electronic devices?

A: Yes, they are a problem, but it is a separate problem. In a study that compared them early start times had a larger effect. Anyway, just because your arm is broken doesn't mean you should not fix a broken leg.

Q: They will just stay up later

A. They do get some more sleep in studies that directly measure this

Q: It will cost a fortune in buses

A: Each town and district needs to find their Goldilocks solution. School Bus Consultants has stated they can find a no-cost or low-cost solution for every town (although you may not like their solution).

Meanwhile the RAND corporation has found we would gain \$84 Billion over 10 years in the US if we moved to 8:30 or later start times due to current loss from car accidents, illness, and lost productivity

A student's perspective

Every year, I find myself unable to concentrate or perform simple calculations in my first period classes, and I “wake up” as the day goes on. But this year on some days I have first period free, and I am able to sleep for just forty-five more minutes. On those days when I sleep just a little later, I notice that I am able to concentrate right when I arrive at school, and I don't have to spend much of the day waking up.

Zachary Sobel-Pressman, high school junior

An athlete's perspective

Countless times we would finish practice too late to take the late bus, too late to go to the library and get some homework done (it was already closed), but too early for our parents to pick us up. So we would have to wait up to an hour at school, unable to do work because we can't access computers, until we finally could get picked up. If start times were pushed back forty minutes, then the time wasted would be minimized, or even eliminated. So, even with later start times student-athletes would still get home around the same time.

A parent's perspective

We moved here from a town in Maryland where the high school started at 8:30. Just a few months ago my child got herself up in the morning, had a nutritious breakfast, and was ready to start the day when it was time to catch the bus.

Since moving to Connecticut, she barely drags herself out of bed. This means no time to eat and she heads to school without the healthy fuel her body needs. She has stopped loving school and dreads having to head out each morning. She seems more stressed and more anxious.

On the days when there is a school delay, I get to see my happy eager to learn daughter again. Believe me when I tell you, the early start times here are hurting our children.

Elizabeth Hessman—West Hartford parent

A sports parent's perspective

It is a well-rested mind and body that allowed both my children to participate in athletics, music, and academics. My children are student-athletes and I would never push their athletics to the side (my older son is now playing Division I football) but academics must not be overtaken by the concerns of athletics either. The central mission of high school is academics.

Judi Houpert—West Hartford parent

Another parent's perspective

My son has PANS. He got sick last year and missed nearly all of the school year due to illness and multiple hospitalizations, some of them out of state. He now starts the day at 9:12 am, because this is when period 2 starts. He could attend by 8:30 but because he needs to conform to school periods, my son misses advisory and period one every school day.

Grae Silberman—Hamden parent

A teacher's perspective

The days with delays there is a whole different mood in the building. The students are more aware, more alert, more ready for learning. It is like a whole different school. The students have a great day, more smiles, and a calmness.

Lance Goldberg, Farmington High School

Another teacher's perspective

I see the difference in children in different periods. The students in my first period class are like zombies. I teach the exact same class third period and they are eager and ready to learn. Looking at their scores, my first period AP students even do more poorly on the AP exam than those who take the same class third period.

Sean P-High School Teacher West Hartford

Another teacher's perspective

I love my schedule and getting out early. I love being able to pick up my daughter when she gets out of elementary school. But I see the harm it is doing my high school students. I became a teacher because I wanted to improve the lives of my students. Any teacher that would choose their own personal convenience over the health and safety of their entire student body, in my opinion, should not be in the classroom. To me, this is a “no-brainer.”

Kim K—Hartford high school teacher

Administrator's perspective

Starting school later was the most significant and beneficial decision I made in all the years I was an educator

Kenneth Dragseth, PhD--
Superintendent

Final Thought: Who is most affected?

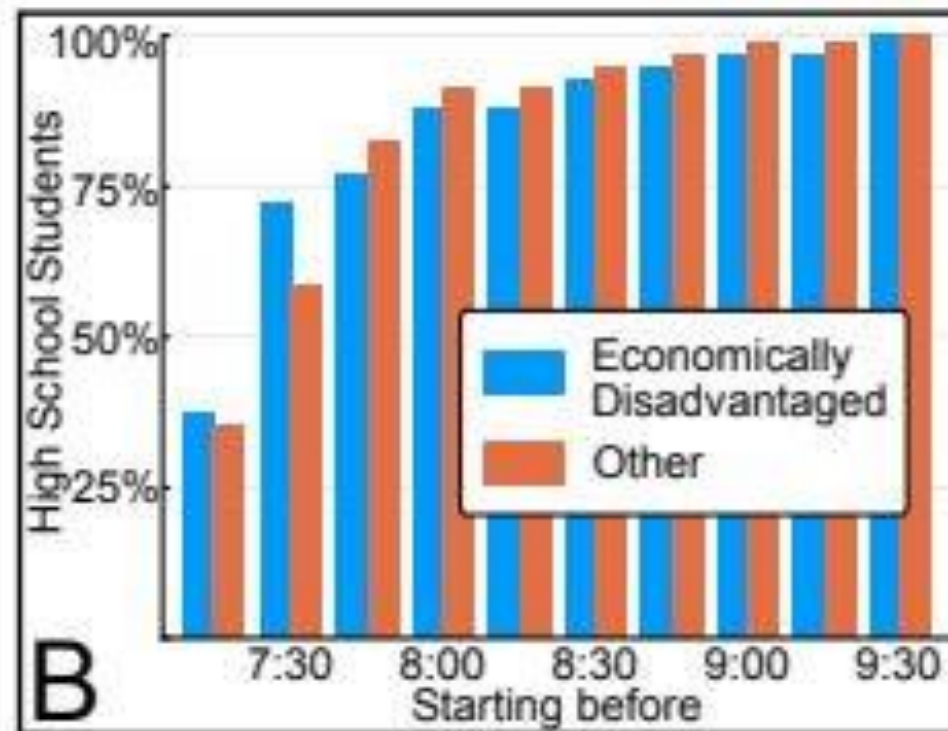
Some studies show that the rates of these effects are not universal

One recent study showed greater effect for girls than boys

And those who are most affected are the most vulnerable—low income or low performing students

Thus, we must ask not only are the effects widespread but even where they are not, do they effect the most vulnerable of our students

“the researchers found low-income high school students were more likely to face early start times than their wealthier peers, as the chart below shows.”



One and Done

You can create a myriad of programs to improve academic performance or social emotional learning.

These will require teacher training, implementation plans, annual measures of efficacy, and re-training each new teacher

School start times are one and done

Start Middle Schools and High Schools at 8:30 a.m. or Later

It's Better for Student Health and Learning



Teens are biologically
wired to sleep late,
but schools start early.



Schools with later start
times see improvements.

- concentration
- mood
- test scores
- attendance



Plus decreases in:

- misbehavior
- caffeine use
- car accidents



School boards and
education departments
must make sure teens
start class at 8:30 a.m.
or later.



Visit <http://bit.ly/LaterSchoolStart> to read the full call to action.

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