

## Why school should start later for teens

---

### Transcript:

It's six o'clock in the morning, pitch black outside. My 14-year-old son is fast asleep in his bed, sleeping the reckless<sup>1</sup>, deep sleep of a teenager. I flip on the light and physically shake the poor boy awake, because I know that, like ripping off a Band-Aid, it's better to get it over with quickly.

(Laughter)

5 [00:34] I have a friend who yells "Fire!" just to rouse her sleeping teen. And another who got so fed up that she had to dump cold water on her son's head just to get him out of bed. Sound brutal...? But perhaps familiar?

[00:51] Every morning I ask myself, "How can I – knowing what I know and doing what I do for a living – be doing this to my own son?" You see, I'm a sleep researcher.

10 (Laughter)

[01:08] So I know far too much about sleep and the consequences of sleep loss. I know that I'm depriving my son of the sleep he desperately needs as a rapidly growing teenager. I also know that by waking him up hours before his natural biological clock tells him he's ready, I'm literally robbing him of his dreams – the type of sleep most associated with learning, memory consolidation<sup>2</sup> and emotional processing.

15 [01:37] But it's not just my kid that's being deprived of<sup>3</sup> sleep. Sleep deprivation among American teenagers is an epidemic. Only about one in 10 gets the eight to 10 hours of sleep per night recommended by sleep scientists and pediatricians. Now, if you're thinking to yourself, "Phew, we're doing good, my kid's getting eight hours," remember, eight hours is the minimum recommendation. You're barely passing<sup>4</sup>. Eight hours is kind of like getting a C on your report card.

20 [02:10] There are many factors contributing to this epidemic, but a major factor preventing teens from getting the sleep they need is actually a matter of public policy. Not hormones, social lives or Snapchat. Across the country, many schools are starting around 7:30am or earlier, despite the fact that major medical organizations recommend that middle and high school start no earlier than 8:30am. These early start policies have a direct effect on how much – or really how little sleep American teenagers are getting.

25 [02:52] They're also pitting teenagers and their parents<sup>5</sup> in a fundamentally unwinnable fight against their own bodies. Around the time of puberty, teenagers experience a delay in their biological clock, which determines when we feel most awake and when we feel most sleepy. This is driven in part by a shift in the release of the hormone melatonin. Teenagers' bodies wait to start releasing melatonin until around 11pm, which is two hours later than what we see in adults or younger children. This means that waking a  
30 teenager up at 6am is the biological equivalent of<sup>6</sup> waking an adult up at 4am. Now, on the unfortunate

---

<sup>1</sup> ubekymrede

<sup>2</sup> *memory consolidation*: styrkelse af hukommelsen

<sup>3</sup> *is being deprived of*: bliver frataget

<sup>4</sup> *You're barely passing*: Det er kun lige nok til at bestå

<sup>5</sup> *pitting teenagers and their parents*: (her) sætter teenagere og deres forældre op imod hinanden

<sup>6</sup> *equivalent of*: modstykke til

days when I have to wake up at 4am, I'm a zombie. Functionally useless. I can't think straight, I'm irritable, and I probably shouldn't be driving a car. But this is how many American teenagers feel every single school day. In fact, many of the, shall we say, unpleasant characteristics that we chalk up to being a teenager – moodiness, irritability, laziness, depression – could be a product of chronic sleep deprivation. For many teens battling chronic sleep loss, their go-to strategy to compensate is consuming large quantities of caffeine in the form of venti frappuccinos, or energy drinks and shots. So essentially, we've got an entire population of tired but wired<sup>7</sup> youth.

[04:33] Advocates of sleep-friendly start times know that adolescence is a period of dramatic brain development, particularly in the parts of the brain that are responsible for those higher order thinking processes, including reasoning, problem-solving and good judgment. In other words, the very type of brain activity that's responsible for reining in<sup>8</sup> those impulsive and often risky behaviors that are so characteristic of adolescence and that are so terrifying to us parents of teenagers. They know that like the rest of us, when teenagers don't get the sleep they need, their brains, their bodies and behaviors suffer with both immediate and lasting effects. They can't concentrate, their attention plummets and many will even show behavioral signs that mimic ADHD.

[05:26] But the consequences of teen sleep loss go well beyond the classroom, sadly contributing to many of the mental health problems that skyrocket during adolescence, including substance use, depression and suicide. In our work with teens from LA<sup>9</sup> Unified School District, we found that teens with sleep problems were 55 percent more likely to have used alcohol in the past month. In another study with over 30,000 high school students, they found that for each hour of lost sleep, there was a 38 percent increase in feeling sad or hopeless, and a 58 percent increase in teen suicide attempts. And if that's not enough, teens who skip out on sleep are at increased risk for a host of physical health problems that plague our country, including obesity, heart disease and diabetes. Then there's the risk of putting a sleep-deprived teen, with a newly minted<sup>10</sup> driver's license, behind the wheel. Studies have shown that getting five hours or less of sleep per night is the equivalent of driving with a blood alcohol content above the legal limit.

[06:48] Advocates of sleep-friendly start times, and researchers in this area, have produced tremendous science showing the tremendous benefits of later start times. The findings are unequivocal, and as a sleep scientist, I rarely get to speak with that kind of certainty. Teens from districts with later start times get more sleep. To the naysayers who may think that if schools start later, teens will just stay up later, the truth is, their bedtimes stay the same, but their wake-up times get extended, resulting in more sleep. They're more likely to show up for school; school absences dropped by 25 percent in one district. And they're less likely to drop out. Not surprisingly, they do better academically.

[07:37] So this has real implications for reducing the achievement gap<sup>11</sup>. Standardized test scores<sup>12</sup> in math and reading go up by two to three percentage points. That's as powerful as reducing class sizes by one-third fewer students, or replacing a so-so teacher in the classroom with a truly outstanding one. Their mental and physical health improves, and even their families are happier. I mean, who wouldn't enjoy a little more pleasantness from our teens, and a little less crankiness? Even their communities are safer because car crash rates go down – a 70 percent reduction in one district.

---

<sup>7</sup> overspændt

<sup>8</sup> *reining in*: få styr på

<sup>9</sup> Los Angeles

<sup>10</sup> *newly minted*: spritnyt

<sup>11</sup> *achievement gap*: (her) manglende evne til at præstere

<sup>12</sup> *Standardized test scores*: (her) Karaktergennemsnit

70 [08:21] Now, given these tremendous benefits, you might think, well, this is a no-brainer, right? So why have we as a society failed to heed this call? Often the argument against later start times goes something like this: “Why should we delay start times for teenagers? We need to toughen them up so they’re ready for the real world!” But that’s like saying to the parent of a two-year-old, “Don’t let Johnny nap, or he won’t be ready for kindergarten.”

*(Laughter)*

75 [08:53] Delaying start times also presents many logistical challenges. Not just for students and their families, but for communities as a whole. Updating bus routes, increased transportation costs, impact on sports, care before or after school. These are the same concerns that come up in district after district, time and again around the country as school start times are debated. And they’re legitimate concerns, but these are problems we have to work through. They are not valid excuses for failing to do the right thing for our  
80 children, which is to start middle and high schools no earlier than 8:30am. And in districts around the country, big and small, who have made this change, they found that these fears are often unfounded and far outweighed by the tremendous benefits for student health and performance, and our collective public safety.

85 [09:55] So tomorrow morning, when coincidentally we get to set our clocks back by an hour and you get that delicious extra hour of sleep, and the day seems a little longer, and a little more full of hope, think about the tremendous power of sleep. And think about what a gift it would be for our children to be able to wake up naturally, in harmony with their own biology.

[10:29] Thank you, and pleasant dreams.

(2016)