



School start time -impact on student wellbeing and academic performance

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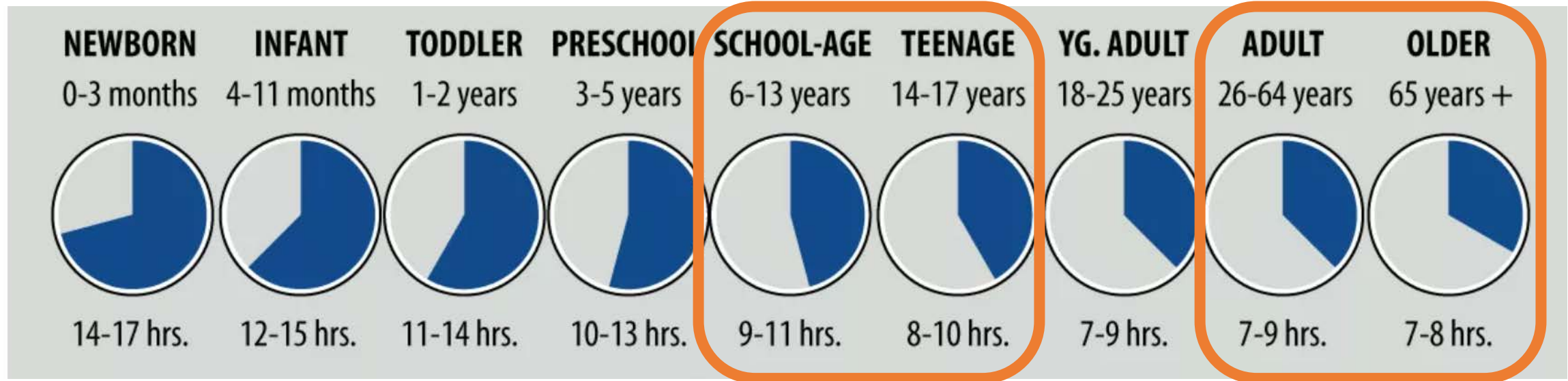
“Sleep like a baby”



Wake up....



Sleep disorders have been declared a public health epidemic



~90% of adolescents do not get the recommended amount of sleep on school nights

What are the consequences
of sleep deprivation?

Increase in car accidents - as bad or worse than drunk driving!

SAFETY



6,000 FATAL CAR CRASHES CAUSED BY DROWSY DRIVING EACH YEAR



1 IN 25 ADULTS WHO'VE FALLEN ASLEEP AT THE WHEEL IN THE PAST MONTH

WEIGHT




MORE CRAVINGS FOR SWEET, SALTY & STARCHY FOOD

Higher levels of the hunger hormone ghrelin | Lower levels of the appetite-control hormone leptin

50% HIGHER RISK FOR OBESITY IF YOU GET LESS THAN 5 HOURS OF SLEEP NIGHTLY

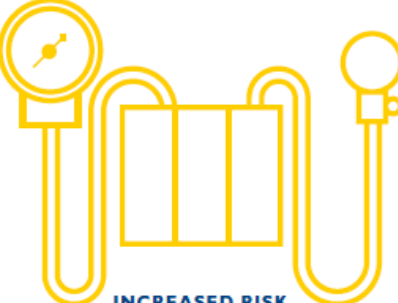
HEALTH



36% INCREASE IN RISK FOR COLORECTAL CANCER

LESS ACTIVE IMMUNITY PROTECTORS CALLED NATURAL KILLER CELLS

NEARLY 3X RISK FOR TYPE 2 DIABETES



INCREASED RISK OF HIGH BLOOD PRESSURE

Craving high reward (unhealthy) foods

Increase in diabetes

BRAIN EFFECTS

Depression
Reduced learning

33% INCREASE IN DEMENTIA RISK



- GREATER RISK FOR:
- Depression
 - Irritability
 - Anxiety
 - Forgetfulness
 - Fuzzy thinking

3-5 YEARS HOW MUCH SLEEP DEPRIVATION CAN AGE YOUR BRAIN



48% INCREASE IN DEVELOPING HEART DISEASE



3X MORE LIKELY TO CATCH A COLD

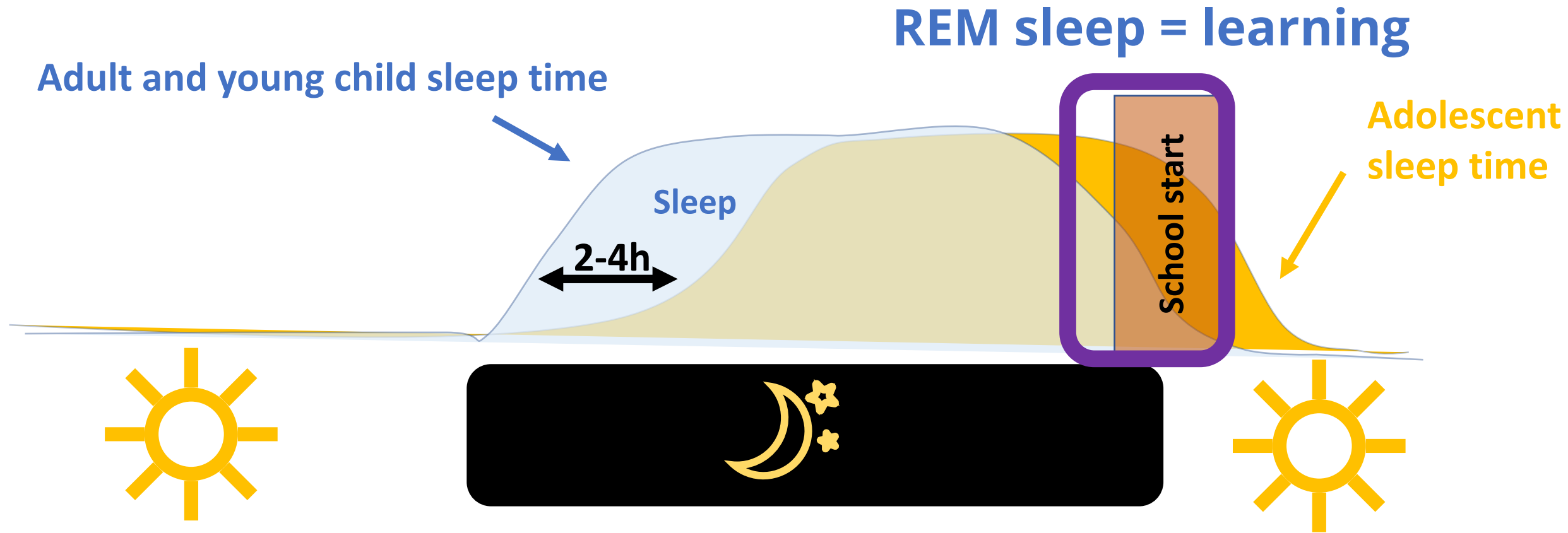
Increase in injuries

Increase in sick days

Why are teens so severely sleep deprived?

Why don't they just go to bed earlier?

Mismatch between puberty-induced physiological changes and societal pressure



Why is lack of sleep in teens
such a big deal?

Lack of sleep in teens is associated with:

- Depression ↑
- Anxiety ↑
- Suicidal thoughts ↑
- Substance use and abuse ↑
- Delinquent behaviors ↑
- Car crashes ↑
- Sports injuries ↑
- Obesity ↑
- Ability to acquire and store knowledge ↓
- Learning and academic performance ↓

Later school start times
benefit students

Later school start times improve mental health

- Increased sleep ↑
- Mood ↑
- Depression (20% reduction) ↓



Later school start times improve social skills

- Conflict resolution ↑
- Aggression ↓



Later school start times improves academic performance and reduce accidents

- Attendance ↑
- Learning ↑
- Tardiness (>30%) ↓
- Car accidents (70% reduction) ↓

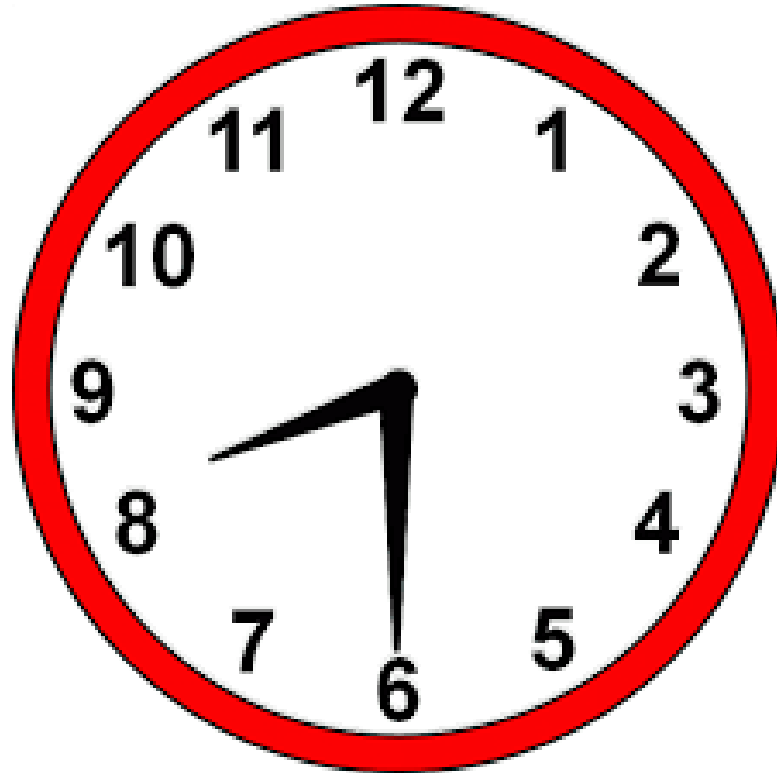


Position Statements or Policy Briefs:

Later middle & high school start times

- National Parent teacher Association (PTA)
- American Academy of Pediatrics
- American Medical Association
- Centers for Disease Control
- National Assn of School Nurses
- Society of Pediatric Nurses
- American Thoracic Society
- Education Commission of States
- American Psychological Assn
- American Sleep Association
- American Physiological Association
- National Education Association
- Family Sleep Institute
- For more, visit the Start School Later website...

Generally recommended middle and high school start time $>8.30\text{AM}$





What are the overall pros and cons for delayed school start time?

Cons for delayed school start time are primarily logistic

- Initial investment to change school start time (\$)
- Commute to school: bus/car
- Childcare
- Potential impact on younger children
- Sports- training and games
- Family dynamics

Pros for delayed school start time

• Students

- Reduced tardiness, car accidents and aggression
- Improved mental health, learning and lifetime earnings

• Schools:

- Reduced cost: improved student health (mental and physical)
- Happier and better teachers: students are easier to teach when awake, and it is more rewarding for teachers to work with non-confrontational, and cooperative students

• Sports

- Reduced accidents
- Improved performance

Advocating for a bill to allow a statewide middle and high school start time change

Advocacy across the state (<https://sites.google.com/msu.edu/sslim/home>)

Who is SSLiM ?

Start School Later in Michigan is a group of clinicians, psychologists, circadian and sleep researchers as well as parents

SSLiM efforts in April and May 2023-includes meetings such as

- State representative, Kimberly Edwards, member of the House Education Committee
- Chief of staff of State Representative Julie Brixie (Personal representative)
- Chief of staff of Senator Dayna Polehanki (Chair of Education Committee)
- Executive director of MHSAA (Michigan Highschool Athletic Association), Mark Uyl
- April 25: School Funding Advocacy Day in Lansing

SCHOOL START TIMES MATTER

During puberty, teenagers have delayed secretion of the sleep hormone, melatonin. The combination of delayed sleep and early school start times prevents 90% of teens from getting the recommended amount of sleep.

Questions?

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