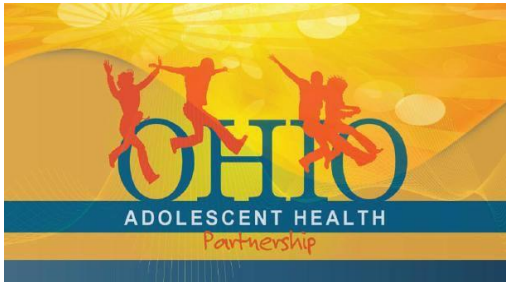


SLEEP: A SECRET WEAPON FOR HEALTH AND SUCCESS

What YOU can do.

**STACY SIMERA, MSSA, LISW-S, SAP
CHAIR, SLEEP COMMITTEE, OAHP
HEALTH POLICY DIRECTOR, OHIO CHAPTER, SSL**



Sleep and Suicide



Over 60 studies have found correlations between chronic insufficient sleep and suicide

- Bernert and Joiner, Sleep disturbances and suicide risk: A review of the literature. 2007.

Sleep and Multiple Sclerosis

Hedström et al, 2011:

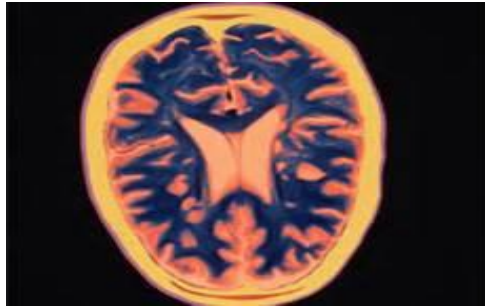
1343 incident cases of MS vs. 2900 controls

5129 prevalent cases of MS vs. 4509 controls



***Working night shift before age 20 doubled
the risk of multiple sclerosis***

Sleep and Sports Injuries



Dr. Matthew Milewski, 2012, AAP Annual Conference
Published 2014

***68% fewer sports injuries among teens
with more than 8 hrs of sleep
compared to their peers with less sleep***

Sleep and Insulin Resistance



Matthews et al, 2012:

245 healthy white and black adolescents:

- ***Elevated insulin resistance*** associated with shorter sleep duration
- Findings were independent of age, race, gender and adiposity [amount of body fat]

Sleep and Car Crashes

In 2012 the Jackson Hole School District moved start times from 7:35 am to 8:55 am.

During that school year, auto accidents among 16-18year olds in the district decreased by 70%



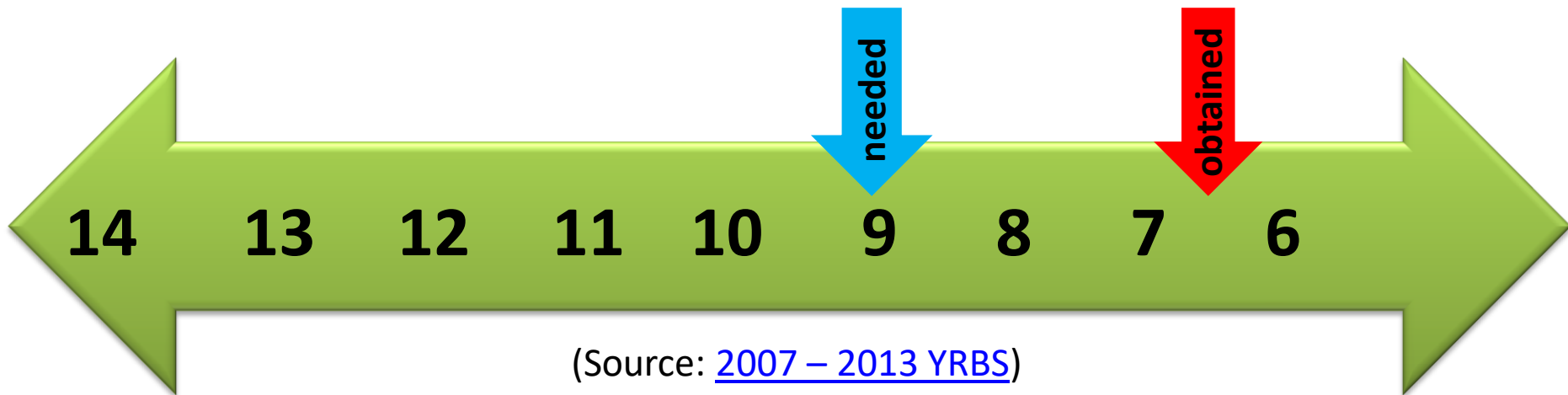
(Wahlstrom et al, 2014 – UMN CAREI Studies)

Adolescent Sleep Needs

8.5 – 9.5 hours (more for athletes)

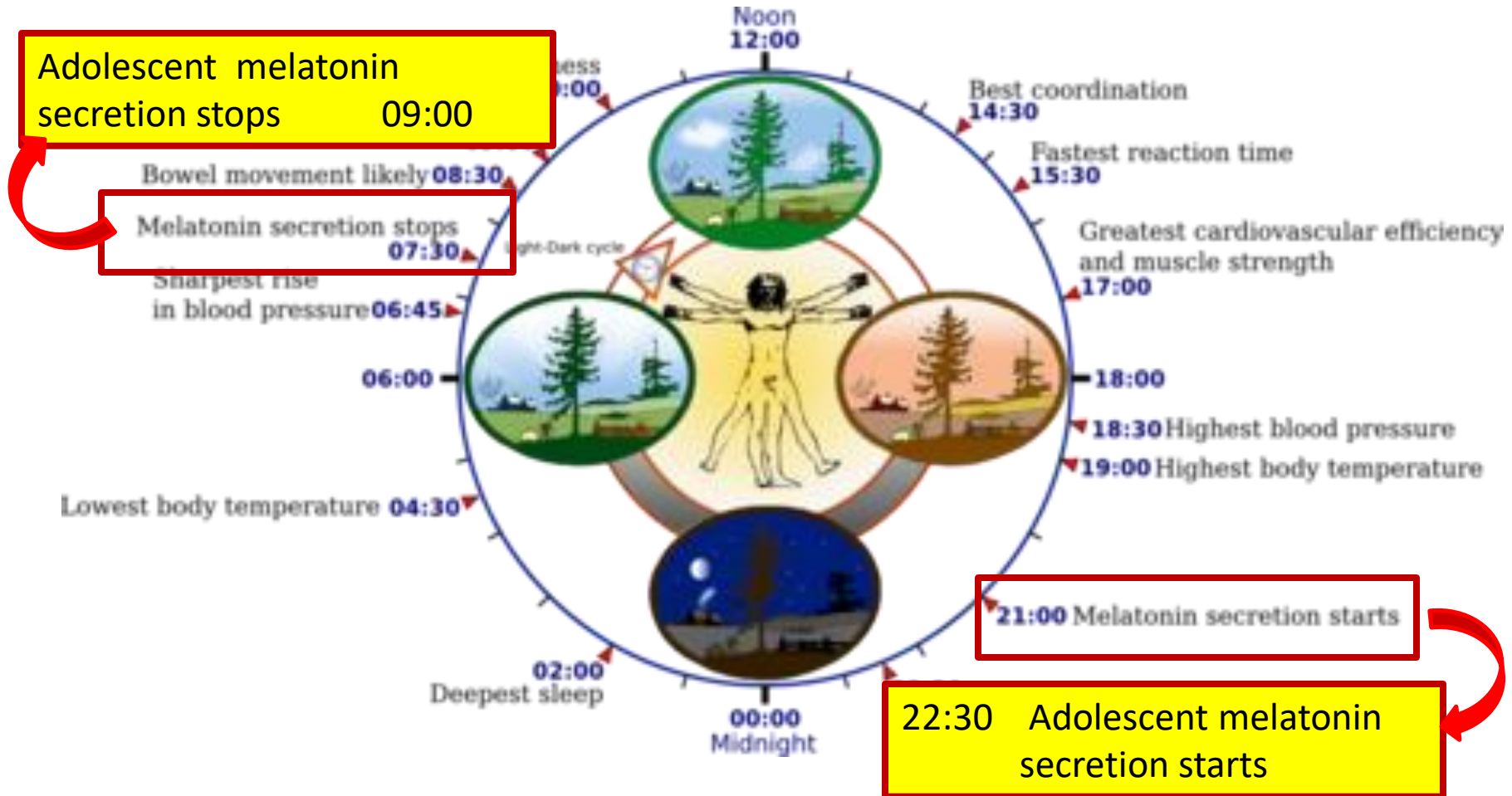
**Less than 10% of high schoolers
get 9 or more hours of sleep per night**

The average adolescent sleeps
6.75 hrs on school nights



(Source: [2007 – 2013 YRBS](#))

Human Biological Clock & Puberty:



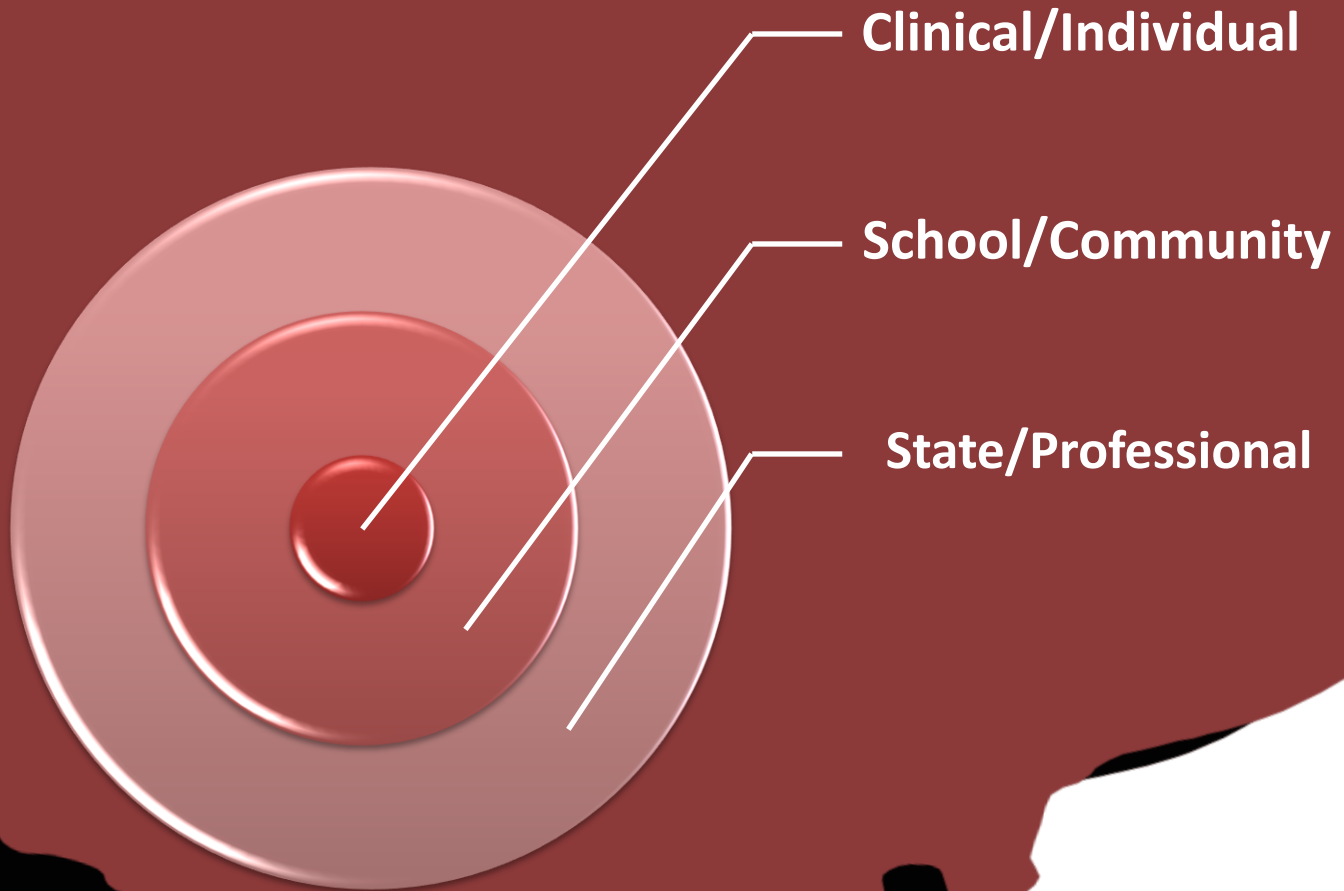
Barriers to Sleep for Adolescents



- Early Wake Times
- Evening Stimulation
- Lack of Awareness

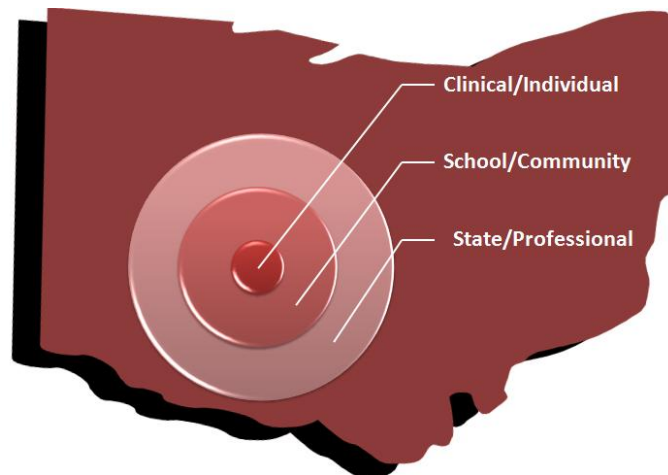


Areas of Intervention



Clinical Interventions

- Screen for sleep disorders (sleep apnea, RLS, etc) and treat or refer as needed
- Screen for insufficient sleep
- Educate teens and parents on sleep needs
- Educate teens and parents on sleep hygiene



Healthy Sleep Hygiene

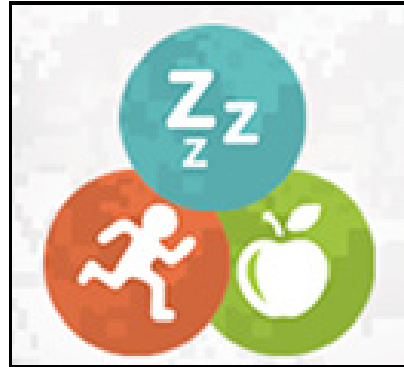
- Avoid caffeine within 6+ hours of bedtime
- Avoid screen-time within 1-2+ hours of bedtime
- Avoid heavy meals, studying before bed
- Avoid exercise within 3 hours of bed



- Time to unwind, music, evening bath/shower
- Dark, cool environment
- No TV or mobile devices in bedroom
- Ideally no pets in bedroom
- Use white noise if needed for sound control



US Army Performance Triad



Sleep

Activity

Nutrition

<http://armymedicine.mil/Pages/performance-triad.aspx>

PERFORMANCE TRIAD RESOURCES



Performance Triad Branding



Performance Triad Products



Performance Triad Posters



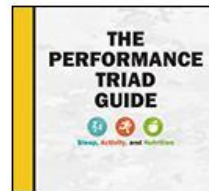
Performance Triad 24 Week Social Media Calendar and Images (Zip File)



Performance Triad Pop-Up Banners



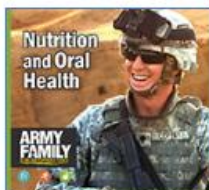
The Performance Triad Challenge Guide



The Performance Triad Text Book



Leaders Overview



Performance Triad: Dental



Performance Triad: Pet Posters



Total Army Family Guide



Performance Triad Target Behaviors Plus Goals



Sleep Tactics for Time Zone Travel



Total Army Family Challenge



Back to School Toolkit



T2 Resilience and Mental Health Guide

FOR PEAK PERFORMANCE, REACH ALL TARGETS AND + GOALS

GET **8** HOURS OF QUALITY SLEEP PER **24** HOUR PERIOD

AIM FOR **10,000** STEPS PER DAY + **5,000** ADDITIONAL STEPS (SPREAD THROUGHOUT THE DAY)

EAT AT LEAST **8** SERVINGS OF FRUITS & VEGETABLES PER DAY

INCLUDE AT LEAST **2** DAYS OR MORE RESISTANCE TRAINING PER WEEK + **1** DAY AGILITY TRAINING



GO CAFFEINE FREE **6** HOURS (BEFORE BEDTIME TO RESET SLEEP)

RE-FUEL **30-60** MINUTES AFTER STRENUOUS EXERCISE

INCORPORATE AT LEAST **150** MINUTES MODERATE AEROBIC EXERCISE + **75** MINUTES VIGOROUS INTENSITY AEROBIC EXERCISE



LOSS OF SLEEP = LOSS OF PERFORMANCE

- ↳ Disciplined sleep equals survivability.
- ↳ Get 7-8 hours of sleep each day.
- ↳ The longer a Soldier goes without sleep, the greater the risk of committing mission-critical errors due to impaired judgement, decision making, and concentration.

Performance TRIAD
Plan for Sleep



SLEEP WELL, BE ALERT, AND GET FOCUSED.

LEARN MORE ABOUT THE PERFORMANCE TRIAD: SLEEP, ACTIVITY, AND NUTRITION
AT [HTTP://ARMYMEDICINE.MIL](http://ARMYMEDICINE.MIL)



Professional
**SOLDIER
ATHLETE**
HERE IT'S NOT A GAME



10 Effective Sleep Habits for Adults

Sleep is vital for health, performance, and wellbeing – and the better the sleep, the greater its benefits. That is why healthy sleep habits, that promote optimal sleep duration and quality, are important for everyone.

- 1. **Create a quiet, dark, comfortable sleeping environment.** Cover windows with darkening drapes or shades (dark trash bags work too) or wear a sleep mask to block light. Minimize disturbance from environmental noises with foam earplugs or use a room fan to muffle noise. If you can, adjust the room temperature to suit you. If cold, use extra blankets to stay warm AND keep your room quiet.
- 2. **Remove distractions.** Turn off your phone, TV, and music in bed. Remove clutter from the bedroom. Don't dwell on upsetting arguments to go to bed.
- 3. **Stop caffeine at least 6 hours before bedtime.** Caffeine increases wakefulness and disrupts your sleep.
- 4. **Don't drink alcohol before bedtime.** Alcohol makes you sleepy, but it disrupts and shortens your sleep. If you need help to stop smoking, withdrawal from nicotine can be uncomfortable. If you need help to stop drinking, contact your healthcare provider for help.
- 5. **Get your exercise in by early evening.** Exercising is great, but exercising too close to bedtime might disturb sleep. If you experience difficulty initiating or maintaining sleep after nighttime exercise, try exercising earlier in the day or evening (at least 3 hours before bedtime).
- 6. **Do not go to bed hungry.** A light bedtime snack (for example, milk and crackers) can be helpful, but do not eat a large meal close to bedtime. Also, empty your bladder before you go to bed so that the urge to urinate does not disrupt your sleep.

The following sleep hygiene tips are especially helpful if you're experiencing sleep problems:

- 7. **Maintain a consistent, regular wake-up time.** Start by setting a fixed wake-up time and get exposure to light each day. Practice during the week AND on weekends. Try to maintain your target 7–8 hours of sleep.
- 8. **Get out of bed if you can't sleep.** If you wake up when you feel sleepy. Do not try to force yourself to sleep. Get up and do something relaxing. Do not return to bed until you feel sleepy.
- 9. **Nap wisely.** Napping can be a good way to make up for poor/reduced nighttime sleep, but naps can cause problems falling asleep or staying asleep at night – especially if those naps are longer than 1 hour and/or if they are taken late in the day (after 3 PM). If you need to nap for safety reasons (e.g., driving), try to take a short (30-60 minute) nap in the late morning or early afternoon (e.g., right after lunch), just enough to take the edge off your sleepiness.
- 10. **Move the bedroom clock to where you cannot see it.** If you tend to check the clock two or more times during the night, and if you worry that you are not getting enough sleep, cover the clock face or turn it around so that you can't see it (or remove the clock from the bedroom entirely).

ARMY FAMILY
IS AN UNSTOPPABLE FORCE



TA-191-1213
Approved for public release, distribution unlimited



Sleep well, be alert, and get focused.
Learn more about the Performance TRIAD at
[HTTP://ARMYMEDICINE.MIL](http://ARMYMEDICINE.MIL)

**ARMY
FAMILY**
IS AN UNSTOPPABLE FORCE



Performance Triad

The Total Army Family Guide

A guide to help with enhancing your health with **Sleep**, **Activity**, and **Nutrition**.



PREPARE FOR

BACK
TO
SCHOOL



Resources to help parents prepare their
kids for optimal performance



Disponible en español
Página 21

Free Handout from Start School Later

Healthy Sleep = Healthy Kids

How much sleep do we need each day?	
Infants up to 2 months old:	14 to 18 hours
3 months to 3 years old:	12 to 14 hours
3-5 years old:	11 to 13 hours
5-11 years old:	10 to 11 hours
12-25 years old:	8.5 to 9.5 hours
26 years and older:	7 to 9 hours

What are the effects of not getting enough sleep each night?

Chronic sleep loss (getting just one or two hours less sleep each night) has been connected to:

- Poorer attention and poorer problem solving
- Mood swings, anxiety, depression
- Poorer impulse control and low frustration tolerance
- Increased risk-taking, increased drug use, and riskier sexual activities
- Increased school violence and bullying
- Decreased immune functioning
- Changes in hormones that regulate appetite, increased obesity
- Poorer food choices (more junk food; fewer fruits and vegetables)
- Increased insulin resistance (which increases risk of diabetes)
- Increased automobile accidents
- Poorer academic performance, increased grade failure
- Increased sports injuries

What can we do to help support healthy sleep?

- ✓ Follow the ABC's of infant sleep: Alone, on their Back, in a safety-approved Crib.
- ✓ Set and enforce healthy bedtimes based on how many hours of sleep is needed.
- ✓ No electronics (screens shining in eyes), exercise, or heavy meals too close to bedtime.
- ✓ No caffeine for kids. Read labels - caffeine is in more products than we realize.
- ✓ See a doctor for suspected sleep problems, heavy snoring, or falling asleep during the day.
- ✓ Ask for developmentally appropriate bus pick-up times and school day start times.

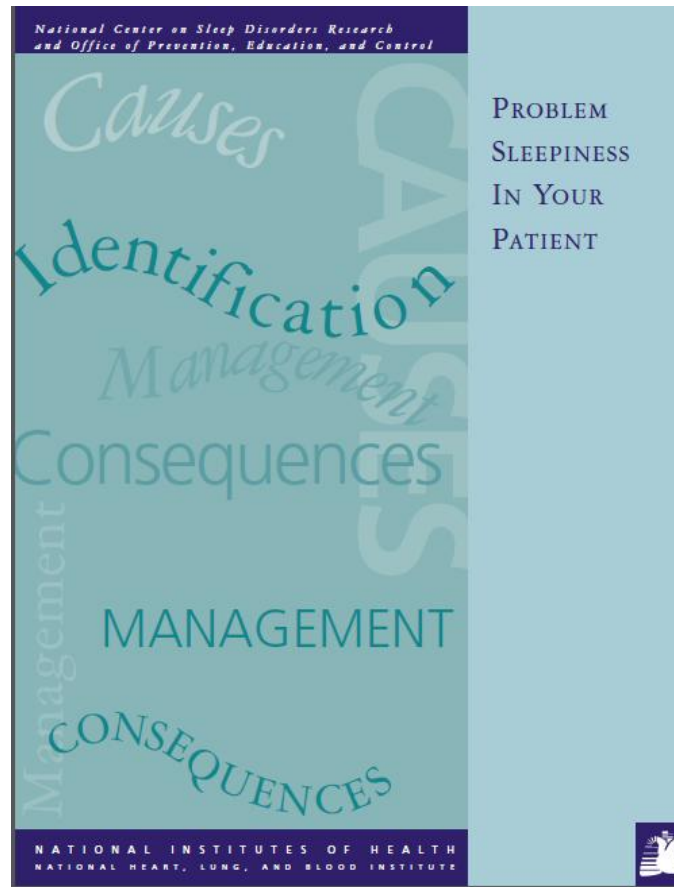
How do school day start times impact sleep?

Puberty creates a later shift in sleep cycle, causing adolescents to stay up later and sleep later. School start times after 8:30am for adolescents has been endorsed by the American Academy of Pediatrics and other health and education groups. Later start times result in more sleep, which then improves overall health, improves test scores, decreases auto accidents, and reduces disciplinary problems in schools.

This data sheet was provided by the national non-profit Start School Later and can be copied.
Visit www.startschoollater.net for references and more information.




Free 9-page guide from NIH



Free 4-page resource from SAMHSA


Substance Abuse and Mental Health Services Administration



www.samhsa.gov • 1-877-SAMHSA-7 (1-877-726-4727)

IN BRIEF

Fall 2014 • Volume 8 • Issue 2



TREATING SLEEP PROBLEMS OF PEOPLE IN RECOVERY FROM SUBSTANCE USE DISORDERS

Sleep problems are a common complaint among people with substance use disorders (SUDs). They can occur during withdrawal, but they can also last months and years into recovery¹ and can be associated with relapse to substance use.² This *In Brief* alerts healthcare providers to the relationship between sleep disturbances and SUDs and provides guidance on how to assess for and treat sleep problems in patients in recovery.

Sleep Disturbances and Substance Use

Many Americans suffer from unhealthy sleep-related behaviors. The prevalence of insomnia symptoms (difficulty initiating or maintaining sleep) in the general population is estimated at 33 percent, with an estimated 6 percent having a diagnosis of insomnia.³ According to a 12-state survey conducted by the Centers for Disease Control and Prevention:⁴

- 35.3 percent of survey respondents obtain less than 7 hours of sleep on average during a 24-hour period.
- 48.0 percent snore.
- 37.9 percent unintentionally fall asleep during the day.

Substance/medication-induced sleep disorder is recognized in the *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition.⁵ Substance use can exacerbate sleep difficulties, which in turn present a risk factor for substance use or relapse to use.⁶ The types of sleep problems vary by substance used and can include insomnia, sleep latency (the time it takes to fall asleep), disturbances in sleep cycles and sleep continuity, or hypersomnia (excessive daytime sleepiness).⁵ Specific findings on the relationship between sleep disturbances and substance use are presented below.

Alcohol Abuse

Insomnia and other sleep disturbances are common symptoms of alcohol dependence.^{1,7} Many people with alcohol use disorder (AUD) have insomnia before entering treatment.⁷ Reported rates of sleep problems among people with AUD in treatment range from 25 to 72 percent.⁸ Some people in recovery from AUD may continue to have sleep problems, including insomnia or sleep-disordered breathing (such as sleep apnea), for weeks, months, or sometimes years after initiating abstinence.^{9,10,11}

Illicit Drug Use

Sleep disturbances are common among people abstaining from chronic substance use. People stopping marijuana use can experience sleep problems in the first days of withdrawal,¹² and these problems can last for weeks.^{13,14} People in detoxification from opioids often report symptoms of insomnia.^{15,16} A study that objectively measured sleep in people who chronically use cocaine found that sleep quality deteriorated during a period of abstinence, even though the subjects perceived their sleep to be improving.¹⁷ Another study of people in withdrawal from cocaine found that three-quarters experienced poor sleep quality.¹⁸ In a study of college students, those who reported a history of nonmedical psychostimulant use or current use reported worse subjective and overall sleep quality and more sleep disturbance compared with those who had not used such substances.¹⁹

The Effects of Sleep Loss During Recovery

Sleep loss can have significant negative effects on the physical, mental, and emotional well-being of people in recovery. It can also interfere with substance abuse

Behavioral Health Is Essential To Health • Prevention Works • Treatment Is Effective • People Recover

More resources from NIH's NHLBI:



National Institutes of Health
National Center on Sleep Disorders Research

RESEARCH

PROFESSIONAL EDUCATION

PATIENT AND PUBLIC INFORMATION

COMMUNICATIONS

Coordinating government-supported sleep research, training, and education to improve the health of Americans

part of the



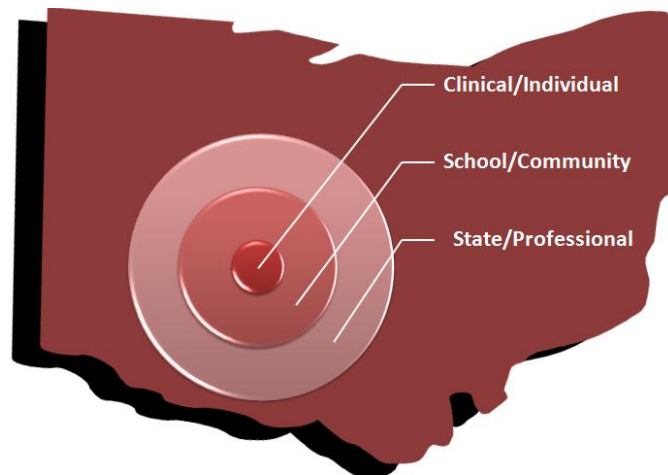
National Heart, Lung, and Blood Institute

About
Help
Site Map
Feedback

The banner features a central image of a person sleeping peacefully in a bed, with a nightgown and a blanket. The background is a dark blue night sky with a crescent moon and stars. The text is arranged in a structured layout with a navigation menu on the left and a logo on the right.

Community Interventions

- Educate community members on teen sleep
- Educate colleagues and encourage continuing education offerings on sleep
- Advocate for sleep curriculum in schools
- Advocate for healthy school start times





The Need for Sleep

By Amy Mohan



Amelia Mohan
M.S. Counselor

Now that school is back in session, being able to sleep in has come to an end for students, and parents are faced with the task of dragging tired teens and preteens out of bed each weekday morning. Chances are, your students won't be getting enough sleep, especially once the homework and after-

activities begin. Sleep patterns naturally shift toward later sleeping and waking times during the summer months, so teens' bodies will likely fight an uphill battle, making it even more difficult for them to get the 8-10 hours of sleep they desperately need for development and well-being.

According to Nationwide Children's Hospital, lack of sleep has a number of negative consequences that students need to be aware of:

- **Mood** - Sleep deprivation causes teens to be moody, irritable and cranky, making it difficult for them to regulate their mood, thereby causing them to become frustrated and more easily upset.
- **Behavior** - Teenagers who are sleep deprived are also more likely to engage in risk-taking behaviors.
- **Cognitive ability** - Inadequate sleep can result in problems with attention, memory, decision making, reaction time and creativity.
- **Academic performance** - Studies show that youth who get less sleep are more apt to get poor grades in school, fall asleep in school and have school tardiness/absences.

What can you do to help your child get a better night's sleep? Here are some suggestions:

1. Make your bedroom a quiet place. Turn your TV, computer and cell phone off at least a half an hour before you get into bed.
2. Take a hot bath or shower before bed to boost deep sleep. Then keep your room cool (about 68 F) to cool your body.
3. If light bothers you, put blackout shades in your windows. Make sure your door is shut when you go to bed. Turn your clock with the face toward the wall, so you don't check the time all night long.
4. If you are stressed, relax with reading, soft music or yoga right before bed time.
5. Go to bed early when you're ill. Even an hour earlier each night can help give your body the sleep it needs to get well.
6. In the book *Smart Cookies Don't Get Stale*, dietitians Catherine Christie, PhD, and Susan Mitchell, PhD, say to eat high-carb snacks before bed. Try pretzels, cereal, graham crackers, fresh fruit, dried fruit, fruit juice, vanilla wafers, saltines, popcorn, or toast with jam or jelly.

Free Posters for Schools

AWAKE
at the
WHEEL

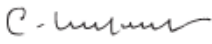
DEAR STUDENT:


You have school and homework. Sports and clubs. Friends and family. And an after-school job. **Who has time for sleep? Who needs sleep anyway?**

Believe it or not, you do. As a teen, you actually need more sleep than younger kids: about nine hours every night. Like most teens, you probably sleep only about six. You wake up tired, and you stay that way. Do you think that's okay — that you'll be fine, just like everyone else? No way! Here's why: **When you don't get the sleep you need, you start to get drowsy in class, at work, at parties, and behind the wheel of your car.** That's where lack of sleep can really hurt you and others.






The solution is simple—**crash in bed, not on the road.** Go to bed earlier. Take a nap if you're sleepy. Sleep late when you can.

Remember, when you're short on sleep, stay out of the driver's seat.

Sincerely,

Claude Lenfant, M.D.
Director
National Heart, Lung, and Blood Institute

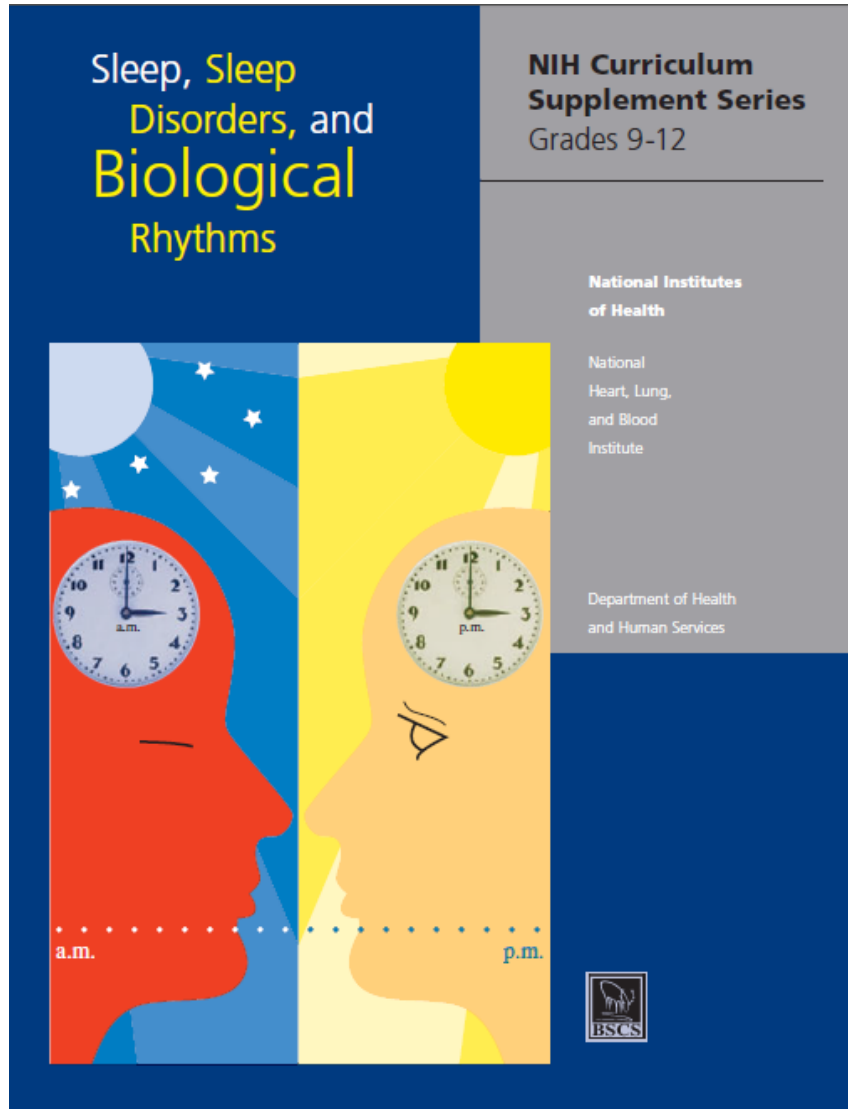


TOP 5 REASONS TO GET ENOUGH SLEEP


-  Drowsy drivers can crash their cars. Crashes disfigure, disable, and kill drivers, passengers, or pedestrians.
-  Drowsy teens react more slowly and perform worse in sports than well-rested teens.
-  Drowsy teens do poorly in school and have problems socially.
-  Drowsy teens have trouble making good decisions.
-  Drowsy teens don't look their best.

SCHOLASTIC


NIH - NHLBI Grades 9-12 Curriculum



Nemours Grades 9-12 Curriculum



KidsHealth
in the Classroom



Grades 9 to 12 • Human Body Series
Sleep

KidsHealth.org/classroom

Teacher's Guide

This guide includes:

- Standards
- Related Links
- Discussion Questions
- Activities for Students
- Reproducible Materials

Standards

This guide correlates with the following National Health Education Standards:

Students will:

- Comprehend concepts related to health promotion and disease prevention to enhance health.
- Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- Demonstrate the ability to use decision-making skills to enhance health.
- Demonstrate the ability to use goal-setting skills to enhance health.
- Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
- Demonstrate the ability to advocate for personal, family, and community health.

National Health Education Standards: www.cdc.gov/healthyyouth/sher/standards

Sleep affects not only how much energy we have, but also our abilities to learn, be creative, and play sports. The following activities will help your students understand sleep and learn how to get enough sleep each night.

Related KidsHealth Links

Articles for Teens:

How Much Sleep Do I Need?
TeensHealth.org/teen/your_body/take_care/how_much_sleep.html

Common Sleep Problems
TeensHealth.org/teen/your_body/take_care/sleep.html

5 Ideas for Better Sleep
TeensHealth.org/teen/your_body/take_care/tips_sleep.html

What Should I Do If I Can't Sleep?
TeensHealth.org/teen/expert/sleep/sleepless.html

Is it OK to Sleep Less on Weekdays and More on Weekends?
TeensHealth.org/teen/expert/sleep/sleeping_in.html

Technology: 5 Ways to Reboot Yourself
TeensHealth.org/teen/safety/safebasics/reboot.html#

Does the Light From a Phone or Computer Make it Hard to Sleep?
TeensHealth.org/teen/expert/sleep/blue-light.html

Caffeine
TeensHealth.org/teen/nutrition/general/caffeine.html

Discussion Questions

Note: The following questions are written in language appropriate for sharing with your students.

1. Do these comments sound familiar? "Go to bed - it's after midnight!" "You have to get up now if you want to catch that bus!" "Are you going to stay in that bed all day?" Why do teens hear these comments so often? How much sleep do you really need? How are your sleep patterns different from a parent's or a kid's?
2. What role does sleep play in your health? What can you do to get more sleep?
3. Have you ever had a restless night, wishing that you could just fall asleep? Think about that time, and name some of the reasons why you think you couldn't sleep. What are some other things that keep people from sleeping well? When do you think sleep loss is a big enough problem to see a doctor?

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American Academy of Sleep Medicine K-12 Lesson Plans

The screenshot shows the 'Sleep Education for School' website. At the top left is a logo featuring a red apple with a clock face and the text 'SLEEP EDUCATION for School BY THE AMERICAN ACADEMY OF SLEEP MEDICINE'. A search bar with the placeholder 'Start typing to search' is in the top right. Below the logo is a navigation menu with 'HOME', 'K-2', '3-5', '6-8', and '9-12', and a 'SELECT A GRADE LEVEL' dropdown. The main content area is divided into several sections: 'LESSON PLANS FOR K-12 TEACHERS' with a welcome message and a 'Read More...' link; 'TOPICS IN SLEEP' with icons for 'Drowsy Driving', 'Snoring', 'Animals & Sleep', and 'Insomnia'; 'CLASSROOM POSTER' featuring 'Every Night, Sleep Right'; 'STORYBOOK APPS' with 'FREE children's storybook apps for iPad, Android and Kindle tablets'; 'DID YOU KNOW' with a fact about dreams; and 'CHILDREN'S BOOKS' with 'The Animals Sleep: A Bedtime Book of Biomes' and 'I See the Animals Sleeping: A Bedtime Story'. At the bottom, there are 'AFFILIATED SITES' including the American Academy of Sleep Medicine and SleepEducation.com.

SLEEP EDUCATION for School
BY THE AMERICAN ACADEMY OF SLEEP MEDICINE

Start typing to search

SELECT A GRADE LEVEL

HOME K-2 3-5 6-8 9-12

LESSON PLANS FOR K-12 TEACHERS

Welcome to Sleep Education, a comprehensive educational resource for teachers and administrators! The American Academy of Sleep Medicine has developed lessons and activities to generate interest in the study of sleep medicine and to raise awareness of sleep disorders. Sleep is important for maintaining a healthy lifestyle and impacts our ability to perform in many aspects of life. [Read More...](#)

Select a grade level: [K-2](#), [3-5](#), [6-8](#), [9-12](#)

TOPICS IN SLEEP

- Drowsy Driving
- Snoring
- Animals & Sleep
- Insomnia

CLASSROOM POSTER

Every Night, Sleep Right

Download **FREE** poster

STORYBOOK APPS

FREE children's storybook apps for iPad, Android and Kindle tablets

DID YOU KNOW

Most dreams involve normal situations with familiar people; bizarre, fantastic or intense dreams are rare. More sleep facts...

CHILDREN'S BOOKS

- The Animals Sleep: A Bedtime Book of Biomes
- I See the Animals Sleeping: A Bedtime Story

AFFILIATED SITES

American Academy of Sleep Medicine

[SleepEducation.com](#)

More resources, compiled by Ohio's Dr. Dean Beebe:

Absolutely Free Resources on Adolescent Sleep

Prefer Print? Three outstanding papers just came out and are available for free.

On September 1st, the American Academy of Pediatrics published

- A technical report on the causes and consequences of insufficient sleep in adolescents
- A policy statement advocating more reasonable school start times

Here are the links to read them for free:

<http://family.aapublicaffairs.com/2010/09/01/>

<http://www.aapublicaffairs.com/2010/09/01/>

Examining the Impact of Later High School Start Times on the Health and Academic Performance of High School Students: A Multi-Site Study

In February, Dr. Kyle Washienko and others published a comprehensive study of the effect of school start times.

<http://www.aapublicaffairs.com/2010/09/01/>

Prefer Video?

The University of Minnesota College of Education and Human Development recently recorded a series of talks on adolescent sleep that encompass sleep biology, the causes and consequences of inadequate sleep in adolescents, and strategies to increase sleep in adolescents. Check out <http://www.ced.umn.edu/adolescent-sleep-resources.html>

Teens & Sleep

This site offers free streaming video of talks and downloadable handouts from leaders in the field.

Sleep and Biology of the Human Brain	Conrad Cole, MD
Biology of Adolescent Sleep	Mary Carskadon, PhD
Sleep and Memory	Limor Paz, PhD
Emotional Distress and Sleep	Alison Taylor, PhD
Stress, Cognitive Load, and School Media	Amy Van Dongen, PhD
Adolescent Sleep, Health, and Creativity	David Dement, PhD
School Start Times	Sofia Vilijanen, PhD
Implementing Later Start Times, Challenging Issues and Our Choices	Caroline Drach, PhD, & Marshall Gold, PhD
	Lawrence Diller, M.D.

Absolutely Free Resources on Adolescent Sleep

Prefer Organizations?

The American Academy of Sleep Medicine is a professional membership organization comprised of clinicians, researchers and educators. Its mission is to advance the science and advance the field of sleep health-care. The website www.aasmnet.org includes some members only links, but also has links for the public, including searchable indexes for sleep medicine clinics (www.aasmnet.org) and specialists in behavioral sleep medicine (www.aasmnet.org).

The public education web sites of the American Academy of Sleep Medicine are www.aasmnet.org and www.sleepingwell.org. These sites offer a treasure trove of easy-to-use information regarding sleep and sleep disorders across all ages, including adolescence.

The National Sleep Foundation dedicated to improving public health and safety by supporting sleep-related education, research, and advocacy. The web site www.sleepfoundation.org has information on sleep and sleep disorders. You can also sign up for weekly e-mails with news, literature and public health alerts.

Smart School Lunches! is an advocacy group comprised of health professionals, sleep scientists, educators, parents, students, and other concerned citizens working to ensure that all public schools can set basic standards with health, safety, quality, and learning. The website offers educational materials and resources, and the organization promotes a national searching pool for local chapters who are advocating for later middle and high school start times in their region and communities.

Prefer To Teach?

Sleep Education School has made your job easier. It has clearly-developed sleep-related lesson plans and materials for grades 4-12. The high school curriculum links to NIH's detailed lesson plans and materials, also available directly at http://www.nhlbi.nih.gov/health/educational/lesson_plans/lesson_plans.html.

NIH Curriculum Supplement Series

- About the OAHP
- Key Health Issue Areas
- Strategic Plan
- Operational Plan
- Meeting Dates and Locations
- Membership Information
- Annual Conferences
- Newsworthy
- Resources
- Ohio Statistics
- Contact Us



Sleep Resources

Below is a compilation of sample programs or publicly available resources related to our goals in Ohio for adolescent health and well-being via sleep. The corresponding OAHP objective(s) are indicated in parentheses after the agency or resource - refer to the [OAHP Strategic Plan](#) for more information on the specific objectives.

American Academy of Sleep Medicine K-12 Sleep Education Curriculum (Objectives 12.1; 12.2)

Educational curriculum adaptable to language arts, math, health, and social studies. Age-appropriate with downloadable lessons, assessments, and even fun crossword puzzles, word searches, and other engaging activities. Four curriculum options: K-2, 3-5, 6-8, and 9-12. Available at www.school.sleepeducation.com

NIH "Sleep, Sleep Disorders, and Biological Rhythms" 9-12 Supplement Series (Objectives 12.1; 12.2)

This National Institutes of Health high school supplement series explores the biology of sleep and the impacts of sleep loss, including the risks of drowsy driving. Downloadable teacher's guide and activities. Available at: www.science.education.nih.gov/customers/HSSsleep.html

Nemour's Foundation KidsHealth 9-12 Sleep Curriculum (Objectives 12.1; 12.2)

Part of the Human Body Series, this high school curriculum offers a teacher's guide with links to suggested articles for students to read, discussion questions, activities, and reproducibles. Available at www.kidshealth.org/classroom/9to12/body/functions/sleep.pdf

"Awake at the Wheel" Materials from the National Heart Lung and Blood Institute (Objectives 12.1; 12.2)

Color brochures, posters, and teacher's guides created by the NHLBI, part of the National Institutes of Health and Scholastic. Materials can be used for classroom lessons or simply to post in hallways or the cafeteria to raise

Join these organizations in asking for later middle/high school start times:

- American Academy of Pediatrics
- American Medical Association
- Centers for Disease Control
- National Association of School Nurses
- Society of Pediatric Nurses
- American Thoracic Society
- Education Commission of the States
- More... visit www.StartSchoolLater.net

Zzz's TO A's:

SUPPORTING SLEEP FOR BETTER-FUNCTIONING ADOLESCENTS

Part 3: Understanding the Role of School Start Times

Hear from state and local *Start School Later* Chapter Leaders in Region V about their ongoing work to implement practices and policies focused on later school start times in an effort to support improved teen sleep.

REGION V | **ADOLESCENT HEALTH NETWORK**

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



Ohio Chapter

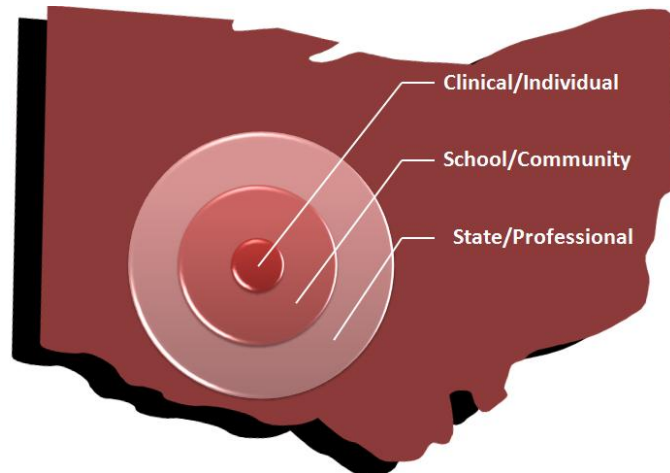


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REGISTRATION INFORMATION AND LINK ON OAHP WEBSITE

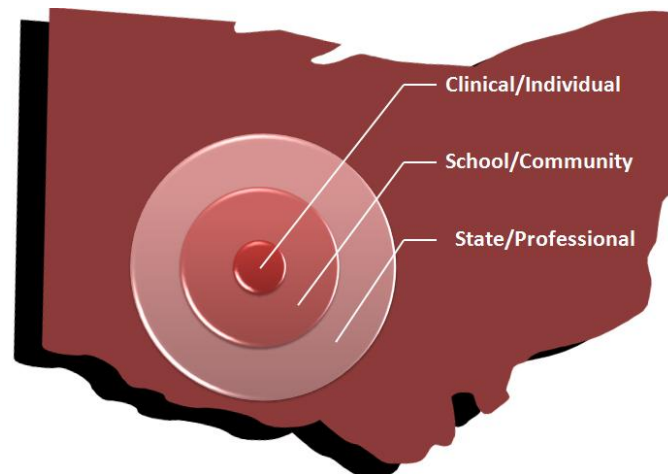
College Interventions

- Educate students and faculty on sleep
- Incorporate sleep education into orientation materials
- Set sleep-friendly schedules in course offerings
- Sponsor professional continuing education on sleep



State-Level Interventions

- Encourage your state department of health to include sleep in public health goals
- Encourage your state department of education to promote sleep education and developmentally-appropriate start times



Ohio Adolescent Health Partnership as a Model:

Goals and Objectives

Goal 12: Adolescents will obtain a minimum of 8.5-9.5 hours of sleep per night.

Objective 12.1: Increase the percentage of adolescents who engage in good sleep hygiene habits.

Objective 12.2: Increase the percentage of health care providers who are screening, diagnosing and providing interventions for adolescents with insufficient and disordered sleep.

Objective 12.3: Increase the percentage of middle and high schools participating in later school day start times.



Reference Sampling

- Chorney, DB, Detweiler, MF, Morris, TL & Kuhn BR. (2008) The Interplay of Sleep Disturbance, Anxiety and Depression in Children. *J. Pediatr. Psychol.* 33 (4): 339-348.
 - Crowley, S., Acebo, C., and Carskadon, M.A. Sleep, circadian rhythms, and delayed phase in adolescence. *Sleep Medicine*, Sep 2007, Vol 8, Issue 6, p602-612.
 - Davis L, Avis K, Schwebel DC. (2013) The Effects of Acute Sleep Restriction on Adolescents' Pedestrian Safety in a Virtual Environment. *Society for Adolescent Health and Medicine* Vol 53, Issue 6, pp 785-790.
 - Kahn-Greene, E., Lipizzi, E., Conrad, A., Kamimori, G., & Killgore, W. (2006). Sleep deprivation adversely affects interpersonal responses to frustration. *Personality & Individual Differences*, 41(8), 1433-1443.
 - Milewski, MD, Pace, JL, Ibrahim, DA, Greg Bishop, G, Barzdukas, A. and. Skaggs, DL. (2014) Chronic lack of sleep is associated with increased sports injuries in adolescent athletes. *J Pediatr Orthop* March; 34(2): 129-33.
 - Must, A., & Parisi, S. (2009). Sedentary behavior and sleep: paradoxical effects in association with childhood obesity. *International Journal of Obesity*, 33S82-S86. doi:10.1038/ijo.2009.23
 - Noland, H., Price, J., Dake, J., & Telljohann, S. (2009). Adolescents' Sleep Behaviors and Perceptions of Sleep. *Journal of School Health*, 79(5), 224-230. doi:10.1111/j.1746-1561.2009.00402.x
 - OBrien, E., & Mindell, J. (2005). Sleep and Risk-Taking Behavior in Adolescents. *Behavioral Sleep Medicine*, 3(3), 113-133. doi:10.1207/s15402010bsm0303_1.
 - Rosen RC, Rosenkind M, Rosevar C, Cole WE, Dement WC. Physician education in sleep and sleep disorders: a national survey of U.S. medical schools. *Sleep*. 1993;16(3):249-254.
 - Rosen R, Mahowald M, Chesson A, et al. The Taskforce 2000 survey on medical education in sleep and sleep disorders. *Sleep*. 1998;21(3):235-254.
 - Taheri, S., Ling, L., Austin, D., Young, T., & Mignot, E. (2004). Short Sleep Duration Is Associated with Reduced Leptin, Elevated Ghrelin, and Increased Body Mass Index. *PLoS Medicine*, 1(3), 210-217.
 - Teodorescu MC, Avidan AY, Teodorescu M, et al. Sleep medicine content of major medical textbooks continues to be underrepresented. *Sleep Med*. 2007;8(3):271-276.
 - Wahlstrom, Kyla; Dretzke, Beverly; Gordon, Molly; Peterson, Kristin; Edwards, Katherine; Gdula, Julie. (2014). Examining the Impact of Later High School Start Times on the Health and Academic Performance of High School Students: A Multi-Site Study.
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