

Take charge of your health today. Be informed. Be involved.



ESTHER BUSH

Sleep Health

August begins the fifth year of this monthly series and partnership among the New Pittsburgh Courier, Community PARTners (a core service of the University of Pittsburgh's Clinical and Translational Science Institute—CTSI), the Urban League of Greater Pittsburgh and the UPMC Center for Engagement and Inclusion. These pages provide you with valuable research information on health topics that may affect you, your family or friends and connect you to research opportunities and local health resources. All articles can be accessed online at the New Pittsburgh Courier website.

This month, the "Take Charge of Your Health Today" page focuses on the importance of sleep and how it affects our overall health. Jennifer R. Jones, MPH, community engagement coordinator at Pitt and Esther L. Bush, president and CEO of the Urban League, discussed this important topic.

JJ: Good morning, Ms. Bush. I'm excited to sit down with you as we begin our fifth year of these "Take Charge of Your Health Today" pages! Can you believe it has been that long?

EB: Jennifer, I'm thrilled to see these health pages continuing in the Courier. I'm so proud of this partnership. Providing the community with current research information on important health topics is fundamental to our mission of working to enable African Americans to achieve self-reliance.

JJ: We're proud to partner with you in that work, Ms. Bush. There's so much research happening at the University of Pittsburgh and throughout Allegheny County, and the community needs to know about it. I know that each month I learn something new! Our August page focuses on the importance of sleep. Prior to this month, I didn't think much about how important sleep really is to our bodies and our health.

EB: Believe me, Jennifer, I respect the value of sleep. I know that I probably don't sleep the recommended seven hours each night. Dr. Buysse emphasizes a few key things about sleep. Sleep research shows that adults who don't get enough sleep have higher rates of chronic diseases like diabetes, heart disease and obesity. We need to start talking about sleep importance, just as we know we need to eat healthy and exercise regularly. Our brains need sleep, and a regular sleep pattern is helpful.

JJ: Yes. It's really amazing to stop and think about all the positive benefits sleep has for our bodies. In excess, "sleep thieves," like alcohol, screen time and caffeine, can prevent restful sleep. It's really important for adults, children and especially adolescents to get the right quality and quantity of sleep. Research also shows that adolescents who get fewer sleep hours have worse standardized test scores, more car accidents and even more incidences of suicide.

EB: I'm really glad we are focusing on sleep, especially as we look around the bend to the end of summer and school starting back up again. There are currently multiple sleep research opportunities at the University of Pittsburgh. I encourage everyone to review these opportunities, and if you know you have a problem with sleep, don't brush it to the side. Talk to your health care provider about your concerns.

JJ: That's great advice, Ms. Bush. Thank you for your time, and I look forward to discussing next month's topic—pregnancy health.

If anyone has questions about the information on this page, e-mail PARTners@hs.pitt.edu.



The importance of sleep and how it affects our overall health

We've all heard the saying, "I'll sleep when I'm dead." It seems easy to go without a lot of sleep, thanks to television, social media, household chores or any number of tasks that fill up our days and nights. But, according to researchers, we're doing our health a great disservice by not prioritizing sleep.

"Sleep was one of the earliest behavioral risk factors identified by researchers," says Daniel J. Buysse, MD, UPMC Professor of Sleep Medicine and professor of psychiatry and of clinical and translational science at the University of Pittsburgh. "We know other behavioral risk factors get a lot of attention—diet, exercise and smoking, for example—but sleep is one of the pillars of health."

According to the Centers for Disease Control and Prevention (CDC), not getting enough sleep is a public health epidemic. The CDC reports that one-third of adult Americans get fewer than seven hours of sleep a night and one-third of adults are sleepy during daylight hours every day.

On a basic level, sleep helps people feel better overall. But research shows that sleep is important in helping the brain work properly. During sleep, the brain creates new pathways that help with memory, learning and emotional behavior. Sleep aids genes that contribute to the health and repair of cells throughout the body. It helps our bodies fight off disease. It's essential in healthy growth and development in infants and children.

Researchers have proven that adults who don't get enough sleep have higher rates of diabetes, obesity, heart disease, stroke, depression and mortality. People are less productive at work and school. They react slower and make more mistakes, which can lead to more immediate consequences like car accidents.

"Inadequate sleep has an imme-

diated and dramatic impact on virtually every brain function," says Dr. Buysse. "We've done studies of people in a lab setting and restricted their sleep. People report feeling sleepy, but then their sleepiness levels off. But when we're measuring how well they're performing at a task, they just get worse and worse. People who are sleep deprived lose the ability to recognize how impaired they are."

The amount of sleep people get is only one part of the sleep health puzzle, says Dr. Buysse. "The timing and regularity of sleep are also important. The same amount of sleep at the wrong time of day is associated with poor health outcomes. Studies in young people and adults show that a variable day-to-day sleep pattern, regardless of how long it is, can also affect health negatively."

adolescence. It's important because data that show that short sleep times and earlier school start times are associated with worse standardized test performance, motor vehicle accidents and even with suicide. It's not a trivial matter.

"As they get older, people get and are capable of less sleep. Older adults are also subject to more sleep disorders and end up with more health conditions and on

more medications, which can also adversely affect their sleep. It's kind of a two-way street."

The American Academy of Sleep Medicine recently reported that certain racial/ethnic groups experience sleep health disparities. African-Americans are most likely to have sleep duration of fewer than six hours. They are more likely than Whites to have sleep apnea syndrome, poor sleep quality and daytime sleepiness. Latinos and Chinese are more likely than Whites to have sleep-disordered breathing and short sleep duration.

What can people do to improve their sleep health?

The American Academy of

Sleep Medicine and the Sleep Research Society recommend that adults get at least seven hours of sleep on a regular, nightly basis for optimal health. Also, "sleep should be centered in the middle of the night so that the middle of people's sleep is 3-4 a.m.," says Dr. Buysse. "People should get regular sleep from day to day. If you have problems with sleepiness or difficulty sleeping at night, see your health care provider because your problems could be caused by a sleep disorder. For so many years, people thought that snoring was a sign of really deep, good sleep, and it turns out not to be true at all. Snoring can be a serious sign of sleep apnea.

"Sleep seems like something that's optional. But we have a lot of research showing that sleep is critical to our health and well-being."



"They (Adolescents) are more naturally night owls. At the same time, our schools start classes earlier and earlier. It's a perfect storm of inadequate sleep in adolescence. It's important because data that show that short sleep times and earlier school start times are associated with worse standardized test performance, motor vehicle accidents and even with suicide. It's not a trivial matter."

DANIEL J. BUYSSE, MD

Staying up too late isn't the only reason for a lack of sleep. Sleep disorders—such as insomnia (when it's hard to fall asleep or stay asleep), restless leg syndrome (an irresistible urge to move the legs) and sleep apnea (breathing that repeatedly stops and starts, causing low oxygen levels in the blood)—pose additional health problems.

The amount of sleep people get and need changes as a function of age. Infants and young children need the most sleep. Adolescents still need a lot of sleep but face a crisis of sleep loss, says Dr. Buysse. "They are more naturally night owls. At the same time, our schools start classes earlier and earlier. It's a perfect storm of inadequate sleep in

Insomnia and Heart Disease Risk

Insomnia (difficulty falling or staying asleep) is a common problem among adults. It also has significant health consequences. There is even some evidence that adults with insomnia who also get too little sleep may be at even greater risk for future heart disease. The purpose of the Pitt Sleep Heart Study is to understand whether adults who have insomnia and get too little sleep show greater signs of early heart disease compared with adults who are good sleepers. The study is looking for two types of adults.

The first type is adults who have insomnia and who usually get fewer than six hours of sleep per night. The study is also looking for adults who sleep well and get more than six hours of sleep each night. All participants need to be between 18 and 50 years of age, in good physical and mental health and not be regular exercisers.

Participation in the study involves three study visits. One of these visits includes an overnight sleep assessment. You also will need to track your sleep habits at home. Com-

penensation and parking are provided. In addition, participants with insomnia will be invited to receive behavioral treatment to see if it helps their sleep.

If you are interested in participating in the study or would like more information, please contact the project coordinator at **412-246-6589** or sleepheartstudy@pitt.edu.

For more sleep research opportunities, visit the [CTSI Research Participant Registry at www.researchregistry.pitt.edu/sleep.shtm](http://CTSI_Research_Participant_Registry_at_www.researchregistry.pitt.edu/sleep.shtm).

Adolescent Sleep Research Opportunities

It is important to study sleep patterns in adolescents (youths and young adults). Brant Hasler, PhD, assistant professor of psychiatry, University of Pittsburgh School of Medicine, is currently recruiting for two sleep studies for adolescents.

ACRES Study

Adolescence (which extends from puberty into young adulthood)

is a time of increased risk for alcohol and other drug use. Important changes happen to the sleep-wake cycle while a teen is growing. One study looks at if these changes contribute to more alcohol or drug use. The study is looking for healthy teens ages 13-17. Findings may help develop better prevention programs that delay the start of substance use and reduce

risks for addiction.

SCARAB Study

Evidence shows that disturbances in sleep and circadian rhythms (the sleep-wake cycle) are associated with alcohol use. This research examines whether weekday-weekend changes in sleep and timing are related to brain function and alcohol use. We are recruiting a sample of

late adolescents/young adults, ages 18-22, who regularly drink alcohol. If you are interested in participating in the study or would like more information, go to www.sleep-and-alcohol.org.

Are you interested in learning more about these studies? Contact Wambui Ngari at ngariw@upmc.edu or 412-246-6965.