Self Care
SLEEP

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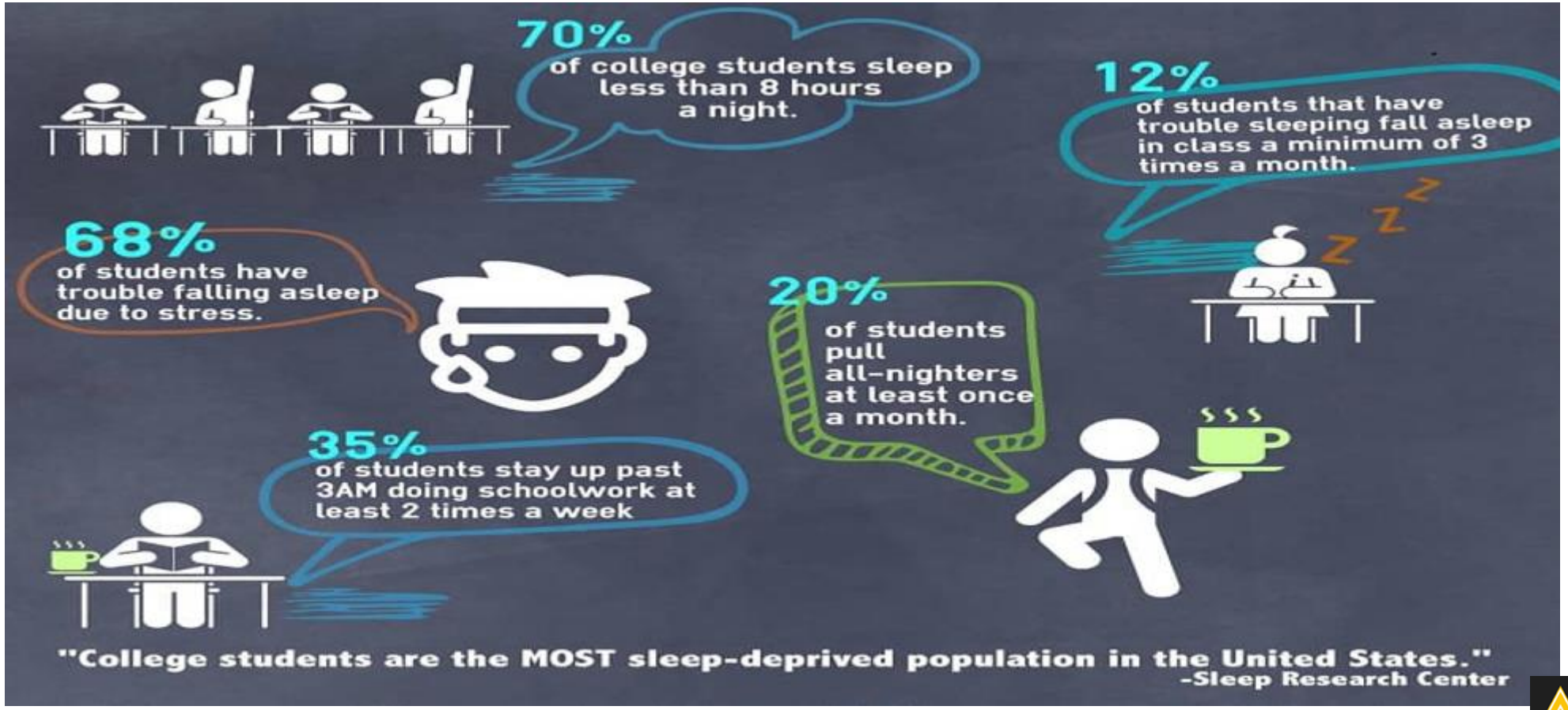
Goal of this presentation

- To understand the sleep cycle
- To understand the effect of poor quality of sleep on physical and mental health
- To promote good sleep habits and techniques.

Amazing Sleep facts just for fun…….

- The record for the longest period without sleep is 18 days, 21 hours, 40 minutes during a rocking chair marathon. The record holder reported hallucinations, paranoia, blurred vision, slurred speech and memory and concentration lapses.
- A new baby typically results in 400-750 hours lost sleep for parents in the first year
- Anything less than 5 minutes of falling asleep means you are sleep deprived. The ideal is between 10—15 minutes to fall asleep, means you are tired enough to fall asleep deeply but not so exhausted that you are sleepy all day
- According to the CDC, staying awake for 18 hours can have the same effect as a blood alcohol content (BAC) of 0.05 percent. Staying awake for 24 hours can equate to a BAC of 0.10 percent (higher than the legal limit of 0.08 percent).
- And according to research by AAA, drowsy driving causes an average of 328,000 motor vehicle accidents each year in the US. Drivers who sleep less than five hours per night are more than five times as likely to have a crash as drivers who sleep for seven hours or more.
- retrieved from https://summer.harvard.edu/blog/why-you-should-make-a-good-nights-sleep-a-priority/

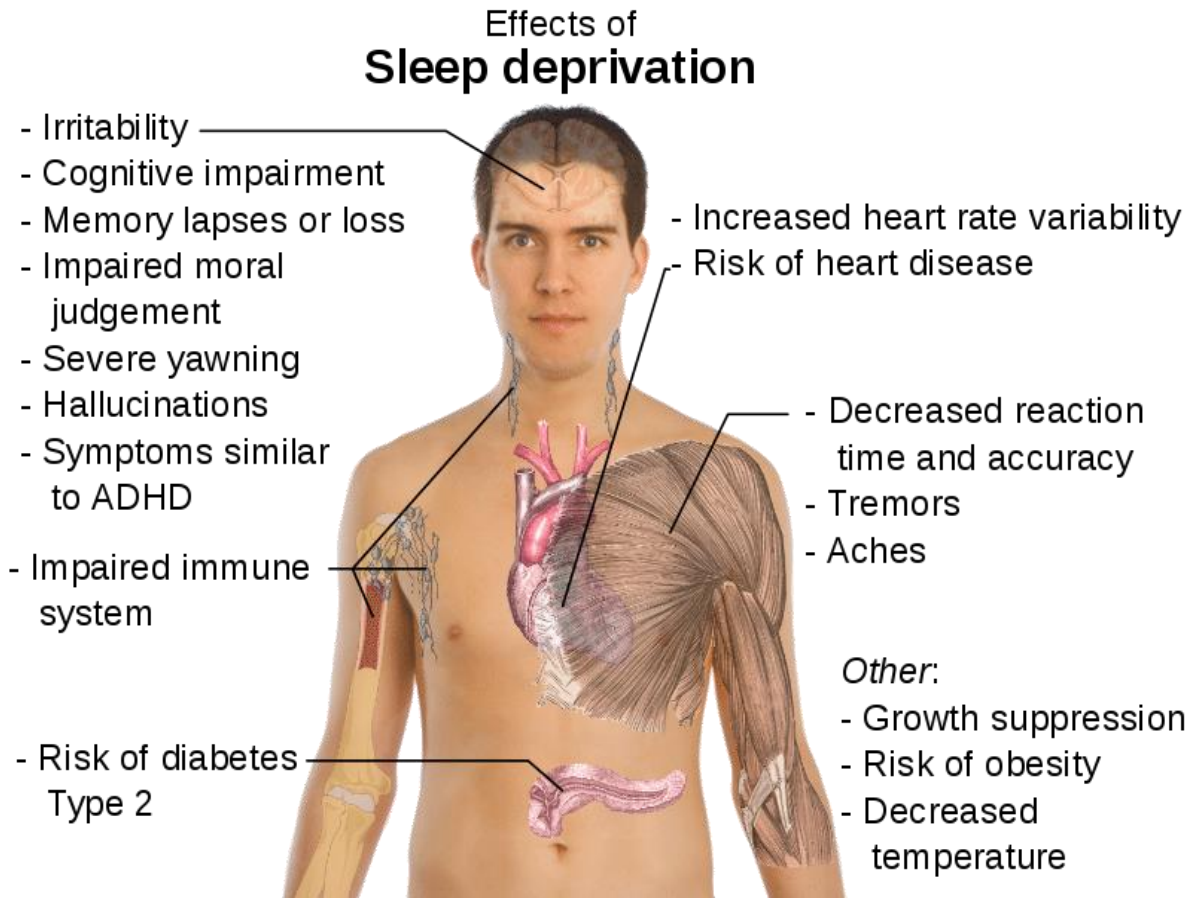
More facts:



https://www.terrycralle.com/sleep-deprivation-in-college-students/

So why do we care about sleep?

Lack of sleep impacts on our daily lives & our health



SLEEP STAGES

- Stage 1 Dosing off to sleep, light may interfere with going forward to other stages of sleep
- Stage 2 the body enters a more subdued state including a drop in temperature, muscles begin to relax, your breathing and heart rate slow down, you are in this stage for about 10 to 25 minutes
- Stage 3and 4 are when you enter deep sleep and hard to wake someone in this stage…it is in this stage the body recovery and growth (growth is for very young) occur and it supports the immune system…Most time spent in this stage about 20 to 40 manures and often if you try to waken someone in this stage it is difficult. Persons often say they may hear someone or something attempting to waken them but they cannot move
- REM is the dreaming stage and this stage is important for psychological coping

- Patel AK, Reddy V, Shumway KR, et al. Physiology, Sleep Stages. [Updated 2024 Jan 26]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK526132/

REM Sleep

- The phase of sleep in which most dreams occur.
- During REM sleep, a person's brain activity, breathing, heart rate, and blood pressure increase, and the eyes move rapidly while closed. The muscles in the arms and legs become temporarily unable to move.
- REM sleep is thought to play an important role in memory and learning.
- During normal sleep, a person goes through four to five sleep cycles that last about 90 minutes each and include both REM sleep and non-REM sleep (light to deep sleep).
- Also called rapid eye movement sleep.

- Retrieved from: https://www.cancer.gov/publications/dictionaries/cancer-terms/def/rem-sleep

What Are Circadian Rhythms?

- According to the NIH fact sheets:
- Circadian rhythms are the physical, mental, and behavioral changes an organism experiences over a 24-hour cycle. Light and dark have the biggest influence on circadian rhythms, but food intake, stress, physical activity, social environment, and temperature also affect them. Most living things have circadian rhythms, including animals, plants, and microorganisms. In humans, nearly every tissue and organ has its own circadian rhythm, and collectively they are tuned to the daily cycle of day and night.
- Circadian rhythms influence important functions in the human body, such as:
- Sleep patterns
- Hormone release
- Appetite and digestion
- Temperature”

retrieved from : https://www.nigms.nih.gov/education/fact-sheets/Pages/circadian-rhythms.aspx#what-are-circadian

Factors contributing to sleep problems

- Medications and substances
- Alcohol
- Antihypertensive agents
- Caffeine
- Decongestants
- Nicotine

- retrieved from :https://my.clevelandclinic.org/health/diseases/11429-sleep-disorders

Factors contributing to sleep problems cont.

Medical issues

- Pain
- Neurological disease
- Systemic diseases such as :GERD, Ulcers, diarrhea diabetes
- Poor sleep hygiene that incudes: Eating a large or heavy meal before sleep, extensive daytime napping, exercise just before bedtime, drinking large amount of liquid before going to bed

Environmental issues

- loud noises, bright lights, extreme temperatures, watching TV, using a computer or cell phone (blue light)

People Prone to Sleep Problems

- Abnormalities of nose, throat and airway
- Older adults
- Night shift workers
- Obesity
- Post-menopausal women
- Alcohol abuse
- Blind individuals
- Depression and psychiatric disorders

- retrieved from:https://my.clevelandclinic.org/health/diseases/11429-sleep-disorders

Are you sleepy?

Here are signs that you may need more sleep:

- "Zoning out" or dozing off during the day
- Losing track of lectures, readings, or videos
- Excessive blinking or yawning
- Tripping or stumbling more than usual
- Feeling sluggish

What can sleep do for you?

The amount of sleep that a college student gets is one of the strongest predictors of academic success.

- .Fosters memory formation and learning: Save yourself some study time—your brain will be hard at work solidifying memories while you sleep.
- Regulates mental and emotional health: Sleep helps you take on challenges with more resilience.
- Keeps your immune system strong: You're more likely to get sick when sleep-deprived, which could mean missing out on social activities, class, and other important events.
- Supports physical health: Sleep helps regulate metabolism and many other body functions.
- Enhances your productivity: Getting quality sleep boosts productivity, which can free up time for friends, hobbies, or more sleep!
- Helps you stay alert and safe: Dozing off in class may be awkward, but falling asleep at work or at the wheel could be dangerous. Did you know that drowsy driving is as dangerous as drunk driving?

- Retrieved from https://uhs.umich.edu/sleep

According to the University of Michigan Here are some helpful hints to try…

Nap! A nap lasting 15-45 minutes can give you energy, make you more alert and improve mental performance. But beware: naps longer than 45 minutes (after you enter deep sleep) may actually leave you feeling more groggy and tired! Avoid late afternoon and evening naps, which can disrupt night sleep.

Wake up at about the same time every day, even weekends. It's a myth that you can make-up for lost sleep, and erratic wake times play havoc with your circadian rhythm. If you wake up at noon on the weekend, it might be hard to fall asleep before 4am on Sunday night, which can perpetuate a late sleep cycle. You may want to schedule later classes so you can have a more consistent wake time.

Steer clear of all-nighters: Staying up all night decreases your ability to process and analyze information, so you may do worse on exams or assignments the next day. To best prepare your mind, get 7-9 hours of sleep, but even a few hours of sleep are better than none.

Trouble falling asleep: Try using white noise, listening to music, or using a guided mindfulness meditation such as an app example www.calm.com

Turn off screens 30-60 minutes before bed: Staring at your TV, computer, or tablet screen can disrupt your natural sleep-wake cycle and make it harder to fall asleep. If you can't turn off the tech, dim your screen, put your phone on silent, or use the "Do not disturb" option on your phone.

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Continued…….

- **Exercise** regularly to create a more restful sleep, but avoid exercise within two hours of bedtime because it may be too energizing
- **Rethink your drink**: Both caffeine and alcohol can disrupt your sleep. Caffeine stays in your system for up to eight hours and can keep you awake. Alcohol, though it may make you feel drowsy, decreases sleep duration and quality.
- **Create a positive sleep environment**. Think cool, dark and quiet! Use thick curtains or an eye mask to block out light and a white noise machine or ear plugs to reduce noise.
- **Clear your mind and relax.** Journaling can help de-clutter your mind, and soothing music or warm non-caffeinated tea can help you relax.
- **If you don't fall asleep** within twenty minutes of going to bed, try reading or doing something relaxing until you feel more tired.
- **Try using an apple watch** to track your sleep over time. For healthy adults, spending **20-25% of your time asleep** in the REM stage is a good goal. If you get 7-8 hours of sleep, around 90 minutes of that should be REM.
- **Keep a sleep diary for a week.** Pay attention to your sleep in a structured way. And be sure to record how you felt during the day. This can really help you make the link between how you slept the night before and how you feel during the day. It's amazing how much you will learn about your sleep and its impact on your life."
  - https://www.sleepfoundation.org/

If you experience extreme or persistent sleep difficulties

*Y*ou may have a sleep disorder? Examples include:

- Inability to fall or stay asleep
- Being too sleepy during the day
- Snoring or pauses in your breathing during sleep

- Talk to your health care provider about options.

Food for thought……

- College students who prioritize sleep are likely to see an improvement in their academic performance.
- If you are well rested, you will experience less daytime sleepiness and fatigue. You may need less caffeine to stay awake during those long lectures. And you will also find you are more productive, more attentive to detail, and able to concentrate better while studying.
- But the connection between sleep and academic performance goes well beyond concentration and attentiveness.
- “Sleep is very important for consolidating memories. In any sort of experimental setting, study results show better performance if you learn material and then sleep on it, instead of remaining awake. So there’s lots and lots of evidence now indicating that sleep promotes memory strengthening and memory consolidation,” (2020,Pace-Schott)

https://summer.harvard.edu/blog/why-you-should-make-a-good-nights-sleep-a-priority/

Davidson, P., & Pace-Schott, E. (2020). The role of sleep in fear learning and memory. *Current opinion in psychology*, *34*, 32–36. https://doi.org/10.1016/j.copsyc.2019.08.016

This week challenge :

During the next week please try to use the information from this class to improve your sleep habits.

SLEEP WELL…