



# *“Let’s Sleep On It”*

Why sleep is not only the most important determinant of  
how long you live, but how well you live

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March, 29<sup>th</sup>, 2023

# Goals

- Empower you with the information you can use to live the life you want to live
- Help you understand just how important sleep is


# Agenda

- Why sleep is essential
- What is sleep
- How much do we need
- Health benefits of sleep
- Various topics regarding sleep
- Tips for better sleep
- Why sleep is essential



# Three Pillars of Health

- Nutrition
- Activity
- Sleep



“There is no aspect of your wellness that can retreat at the sign of sleep deprivation and get away unscathed”

“The number of people who can survive on six hours of sleep or less without measurable impairment, rounded to a whole number and expressed as a percent, is zero”

Matthew Walker, PhD

Sleep scientist, director of the Center for Human Sleep Science

# We are the only species that intentionally deprives ourselves of sleep

- Don't think of sleep as a cost for your productivity today but as an investment in your productivity for tomorrow. Sleep is not so much for the day you just lived but for the day yet lived
- Sleep is a non-negotiable biological necessity, not a luxury
- The shorter you sleep, the shorter your lifespan but more importantly, the shorter your healthspan
- Sleep is your life support system and mother nature's best effort yet at immortality

# How much sleep do we need?

- Infants: 12-17 hours
- Children: 9-13 hours
- Teens: 8-10 hours
- Adults: 7-9 hours
- Older adults: 7-9 hours

# Sleep stats

- 35% of all adults in the US get less than 7 hours a sleep a night
  - 44% of factory workers, 43% single parents, 37% if two parents, 31% if no kids
- 73% of teens get less than the recommended and 57% of children
- 33% of working adults average less than 6 hours a night
- 10-30% of adults have insomnia, women have a 40% higher risk than men
- 50% of Americans say they feel sleep during the day between 3-7 days/week
- 44% of men snore, 28% women
- And for adults older than 40, 69% of men and 76% of women get up to pee at least once during the night



# Is Not Sleeping the New Smoking?

- Within the span of 100 years, we have lopped off 20% of our sleep
- There is a sleep loss epidemic and is one of the biggest public health crisis of our time
- Most people don't recognize they are sleep deprived and are not capable of objectively understanding how impaired they are. If you go a long period of time without sleep is comparable to being intoxicated.
- True slothfulness isn't sleeping eight hours a night – it's ignoring our health and taking on important responsibilities in a sleep-deprived state
- Are you willing to accept a lower baseline of wellness?

# Stages of sleep

- REM/dream sleep: 20-25% of all sleep
- NREM
  - Stage 1: Transition from awake to light sleep
  - Stage 2: Light sleep
  - Stage  $\frac{3}{4}$ : Deep sleep

# Memory

- Being rested is important before learning as you are attempting to soak in new information
- Being well rested allows you to cement what you learned into new circuits
- You can wake up with a new mind wide web of associations that allow you to problem solve and come up with solutions

# Dementia

- When you sleep less you produce more beta amyloid, the protein associated with Alzheimer.
- There is a brain lymphatic system, the glymphatic system, that is the brain cleansing system that works while you are sleeping
- Association between sleep disorders and Alzheimers
- Better you sleep, the less your risk

# Reproductive

- Men who sleep only 4-5 hours a night have smaller testicles and lower testosterone than men who sleep 7-8 hours
- Women's ability to conceive is affected by poor sleep
- There is more conflict in marriage when there is poor sleep
- Increase libido and orgasmic ability with better sleep
- More intimacy equals a better marriage

# Immunity

- Individuals who sleep less than 7 hours a night are almost 3x as likely to be infected with a cold
- Flu shots show an increase in protection in the well-rested
- Sleep creates more immune factors and sensitizes your body to be more responsive to these immune factors
- Infections trigger your immune system to get more sleep. Your body is trying to sleep you well. I was grateful to be able to sleep during my recent illness.
- Sleep is the best insurance policy

# Emotions and Mental health

- The less the sleep, the more the emotional irrationality and hyperreaction
- There is no mental health condition where sleep is normal
- Association between poor sleep and suicide
- Is poor sleep the cause of mental health problems?
- REM sleep is emotional first aid, a nocturnal soothing balm. Sleep reduces anxiety

# Dreaming

- Emotional first-aid. You sleep to remember your experience's but you also sleep to lose the visceral, emotional response. You divorce the emotion from the memory. It's a form of overnight therapy.
- Dreaming about problems can help solve them
- Our creativity is enhanced
- Its not time that heals all wounds, time in REM sleep heals all wounds



# Cardiovascular

- During deep sleep, you have decreased blood pressure and heart rate, decreased cortisol, increased parasympathetic nervous system.

# Exercise

- If you sleep less, less desire to exercise
- If you sleep less your intensity of your workout is less effective and efficient
- Performance is improved. People who sleep more and sleep better perform better, both in the short and the long term
- Reduce risk of injury
- The greatest, legal performance enhancing drug for both preparation and recovery
- Sleep and exercise are bi-directional, exercise increases the quantity and quality

# Eating

- Eating too close to bed can affect your sleep quality
- Digestive tract needs some distance from eating to not active while you sleep
- Eating raises your core body temperature, especially higher carb snacks
- When you don't sleep you have the increased release of Ghrelin which promotes hunger and decrease release of Leptin, which promotes satiety
- Will crave the sugary carbs with poor sleep
- Less willpower
- When you are dieting but not sleeping well, 70% of your weight loss comes from muscle not fat

# Caffeine

- A psychoactive stimulant
- Half life of 5-6 hours
- Makes it harder to fall asleep
- Makes sleep more fragile, resulting in more awakening
- Electronic quality of restorative deep sleep is less
- May be a lot of health benefits of coffee, but it is more from the coffee bean, which you can get in decaf
- Dosing and timing are what are important
- If you have get adequate sleep and have a nutrition rich diet, do you need caffeine?

# Alcohol

- Is a sedative and sedation is not sleep
- Reduces deep sleep
- Fragments your sleep
- Blocks REM/dream sleep which is our emotional, mental health, creativity first aid

# Marijuana

- Short-term cannabis use appears to increase the time you spend in deep sleep, the stage that helps you wake up feeling refreshed. However, THC decreases the amount of time you spend in rapid eye movement (REM) sleep, when you spend more time dreaming, processing emotions, and cementing new memories.

# Melatonin and Rx sleeping meds

- Hormone of darkness
- Increase the speed by which one falls asleep by 3.9 minutes
- Increase the quality of sleep by 2.2%
- Purity and strength varies widely
- Chronic use of sleeping pills is discouraged

# Napping

- Not a substitute for a full night sleep
- We have a natural drop in brain alertness in the afternoon hours
- 20-30 minute nap earlier in the day
- Don't nap if you have insomnia



# Technology

- Blue light stimulates us, delays release of melatonin. It's designed to be activating and make you more alert. It will mask your sleepiness.
- Must shut it off before sleep
- Sleep trackers

# Tips for better sleep


- Got to bed and wake up at the same time. May need a go to bed alarm
- Keep the room cool, about 65 degrees, always easier to fall asleep in a cool room
- Keep it dark and quiet
- Cut down on caffeine and alcohol
- Have a wind down routine, sleep is not a light switch, more like landing a plane, need a careful approach. Do something relaxing, bath, read, meditate. Dim lights. Sleep opportunity time
- Don't think
- Keep tech out of the bedroom. Only use your phone standing up
- Do only two things in your bed. Your bed should not be associated with wakefulness
- Don't stay in bed longer than 20 minutes
- Go to bed earlier, wake up earlier

# Sleep disorders

- Sleep apnea
- Restless leg syndrome
- Insomnia
  - Anxiety is number one cause
  - Must change our habits, beliefs, general stress around sleep

# Is sleep the ultimate sleeper

- Sleeper: It can mean: a car on a railroad train, a person in the military, a spy, a wrestling hold, a railroad tie but for most people it means: something or someone that becomes unexpectedly successful or important after a period of being unnoticed, ignored, or considered unpromising or a failure. Could sleep, ironically, be the ultimate sleeper?



If you want to live a life filled with health and not invite in disease and sickness you have to find the right amount of time to sleep

How would your life be like if you had all of the positive benefits of good sleep?