## Fixing Our Broken Sleep 2023

Strategies to dramatically improve your sleep

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Sleep Energy A division of Clear Mind Systems

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## Studying Sleep is Like studying the Cosmos



## Surveys Tell Us About the Quality of Our Sleep:

## Now and Over Time

- $70 \%$ of people in the U.S. report sleep problems nearly every night
- Children from birth to the fifth grade are getting $11 / 2$ to 2 hours per night less sleep than recommended
- $30 \%$ of American workers sleep 6 hours or less per night
- In 1961, 2\% of people responded that they got 6 hours of sleep or less per night
- In 2011, 28\% gave the same response
- In 2017, 30\% gave that same response
- Only $17 \%$ of teenagers get the optimum amount of sleep
- A survey of 10,000 teenagers during the covid year showed...


## Trends Associated With Insufficient Sleep

- There has been a huge increase in type 2 diabetes. Doubled in 18 states and risen by $50 \%$ in 32 states
- $1 / 3$ children are overweight or obese
- $71 \%$ of American adults are overweight or obese
- In 1965, the average caloric intake was 2880 calories per day and in 2017 it was 3600
- In 1998, the president of the American Psychological Association estimated that depression has risen 10 to 20 times in the past 70 years
- Anxiety disorder has risen $1200 \%$ since 1980
- There has been a significant rise in suicide and opioid addiction


## So... What Exactly Is Sleep?

Sleep is the natural periodic suspension of consciousness necessary to regulate, repair and restore physical, emotional and cognitive health.

## Observing sleep



## Portable sleep study



## An in-lab sleep study



## Studying your own sleep

- Over a four-week period, make some morning notes on your sleep experience
- Ask a neutral party about their observations of your sleep, if possible
- Use a tracking device for a week and see how the readouts coincide with your experience (ortho insomnia)
- Observe your natural sleep patterns
- Ask your doctor for a portable take home sleep study
- Have an in-laboratory overnight sleep study
- Find your natural style or rhythm


## If Health Were a Wheel, Sleep Would Be the Hub

- Systems and functions like blood sugar, blood pressure, immune function and appetite are regulated during sleep
- Learning is encoded during sleep and moved into long term memory
- In slow wave sleep $80 \%$ of the necessary growth hormones are secreted to mend the wear and tear of daily life
- Heart activity drops by $10 \%$ during sleep
- The glymphatic system cleans neuro-toxins out of the brain during sleep


## Measuring sleep

| Awake |
| :--- |
| Low-voltage, high- |
| frequency beta waves |


| Drowsy |
| :--- |
| Alpha waves prominent |


| Stage i sleep |
| :--- |
| Theta waves prominent |


| Steep spindles and |
| :--- |
| mixed EEG activity |


| Slow-wave sleep |
| :--- |
| (stage 3 and |
| stage 4 sleep) |
| Progressively more |
| delta waves (stage 4 |
| shown) |

This is what a night's sleep looks like


## The balance of light and dark



Before electricity
Night-Time Illumination Was Simple and Minimal


All life on Earth is regulated by a balance of exposure to light and dark. Light is associated with WAKE and dark is associated with SLEEP

Since 1890, we have gained 4 to 6 hours of light per day And lost 4 to 6 hours of darkness.


## Systems That Work Together to Maintain Wakefulness

 and Build Sleep

## The gifts of good sleep Inspiration is vital

- Better overall health
- More vibrant immune system
- Reductions in anxiety and depression
- Cardiovascular health
- Reductions in body pain
- Better mood
- Better focus
- An increase in patience
- Increase in drive
- Better overall mental and physical performance


## Sleep is the doorway to the great mystery



## 8 to get 8

- Make the bedroom a simple place for sleep and intimacy, free of work and technology.
- Keep as regular a sleep schedule as possible.
- Wake up in a dark room and then get as much light as possible.
- If you nap in the afternoon keep it to 20 or 30 minutes.
- Protect the last 60 to 90 minutes before sleep from light and screens.
- Try auditory entertainment like audible books, podcasts and soft music in that dark period before bed.
- Make the bedroom as dark as possible and use a sleep mask if you can't eliminate all light.
- Keep the room cool from 62 to 65 degrees.


# Protect and Enjoy Your Sleep 

# Encourage Your Family in Their Sleep <br> Share Your Sleep Knowledge <br> With Those You Love 

## Sleep Well

## Questions about your own sleep

Describe your sleep problems


## The following reference slides are for Q\&A

Slides for use in answering specific sleep questions

## Telephone sleep coaching



We do telephone sleep coaching for employees in five major universities four major hospitals, many of the major pharmaceutical companies and manufacturers. Most of our clients
find significant improvement in three, thirty-minute telephone
sessions
Check us out at www.clearmindsystems.net
Sleep Coaching
508-746-6600

## Night Owl Qualities

- Tends to get sleepy later in the night and sleeps late
- What time do I really feel sleepy enough to go to sleep?
- What time do I really want to get up in the morning?
- Tends to need about 8 hours of sleep (7 to 9)


## Beginning the voyage to better sleep

- Think of this as a journey of discovery and change
- Prepare to change some habits and become more open to change
- Be patient: It often takes 4 to 6 weeks to make a lasting difference
- Get sleep coaching and/or medical help


## We Identify Sleep by Measuring Brain Waves

Awake
Low-voltage, high-
frequency beta waves

This Is What a Night's Sleep Looks Like


## Simple Solutions to Excess Night-Time Light Exposure

- Protect the last 60 to 90 minutes before bed-time from bright light
- Move computer use to an earlier part of your evening
- Save simple chores and reading in low light for the end of the evening
- Keep lights as low as possible in the evening
- Keep the bedroom dark during sleep and in the morning
- Get some bright preferably natural light first thing in the morning


## Garbage In - Garbage Out

- Moderate electronic media
- Avoid news and violent games and shows before bed
- If you are anxious at night or suffer from nightmares avoid watching violent crime dramas and horror movies.

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# Wanted <br> for Killing Sleep 



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