



Jody Treu  
Wellness Specialist  
PEHP Health & Benefits

## What is Sleep?

A naturally recurring state of mind and body characterized by altered consciousness, relatively inhibited sensory activity, inhibition of nearly all voluntary muscles, and reduced interactions with surroundings.

# Sleep

A basic necessity of life as important as air, food, and water. Sleep determines if we wake up feeling refreshed and ready to tackle the day. The right amount allows our relationships, productivity, and health to thrive.

Can You  
Relate?



## Sleep Stats

- 74% of adults have trouble sleeping a few nights a week or more
- 30% of employees sleep less than 6 hours a night
- One drowsy driver crashes every 2 minutes = 3-4% of all MVAs
- Fatigued employees cost an employer \$2,280 per year

**How's Your Sleep?**

# INSOMNIA JEOPARDY

WAYS IN WHICH PEOPLE HAVE WRONGED ME	STRANGE NOISES	DISEASES I PROBABLY HAVE	MONEY TROUBLES	WHY DID I SAY/DO THAT?	IDEAS FOR A SCREENPLAY
\$10	\$10	\$10	\$10	\$10	\$10
\$20	\$20	\$20	\$20	\$20	\$20
\$30	\$30	\$30	\$30	\$30	\$30
\$40	\$40	\$40	\$40	\$40	\$40
\$50	\$50	\$50	\$50	\$50	\$50

# What is Insomnia?

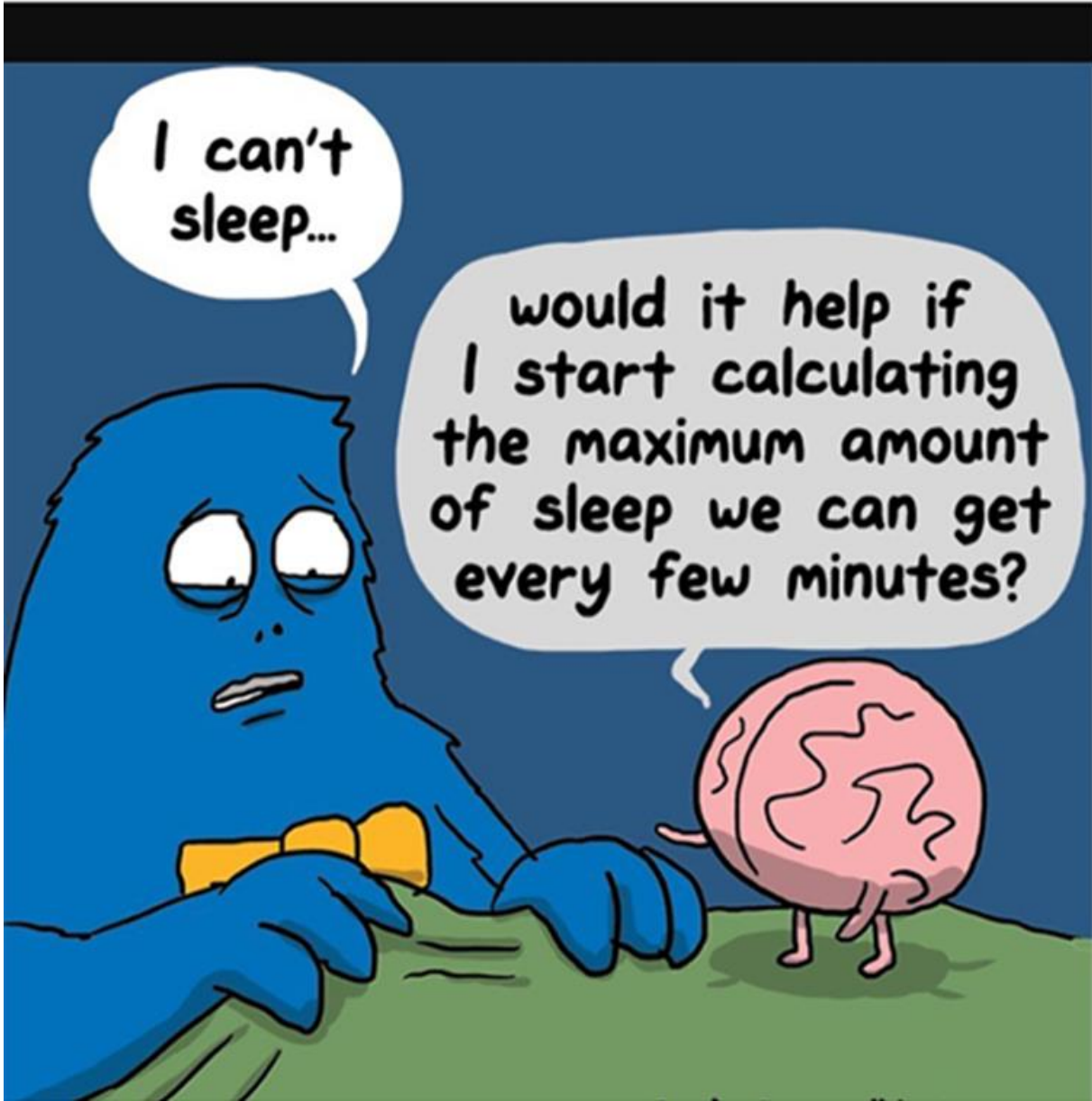
- Difficulty falling or staying asleep
- Waking too early in the morning

# Acute Insomnia

- Temporary
- Caused by current life circumstances
- Often resolves itself without treatment

## Chronic Insomnia

- Difficulty sleeping 3 or more nights per week for at least 3 months
- May relate to underlying health conditions
- Often requires some form of treatment



I can't  
sleep...

would it help if  
I start calculating  
the maximum amount  
of sleep we can get  
every few minutes?

# What is Sleep Apnea?

- Three types: Obstructive, central, or complex
- Pauses or times of shallow breathing during sleep
  - 5-30 times per hour
  - 10 seconds to several minutes long

# Obstructive Sleep Apnea



Non-obstructed airway



Obstructed airway

# Sleep Apnea

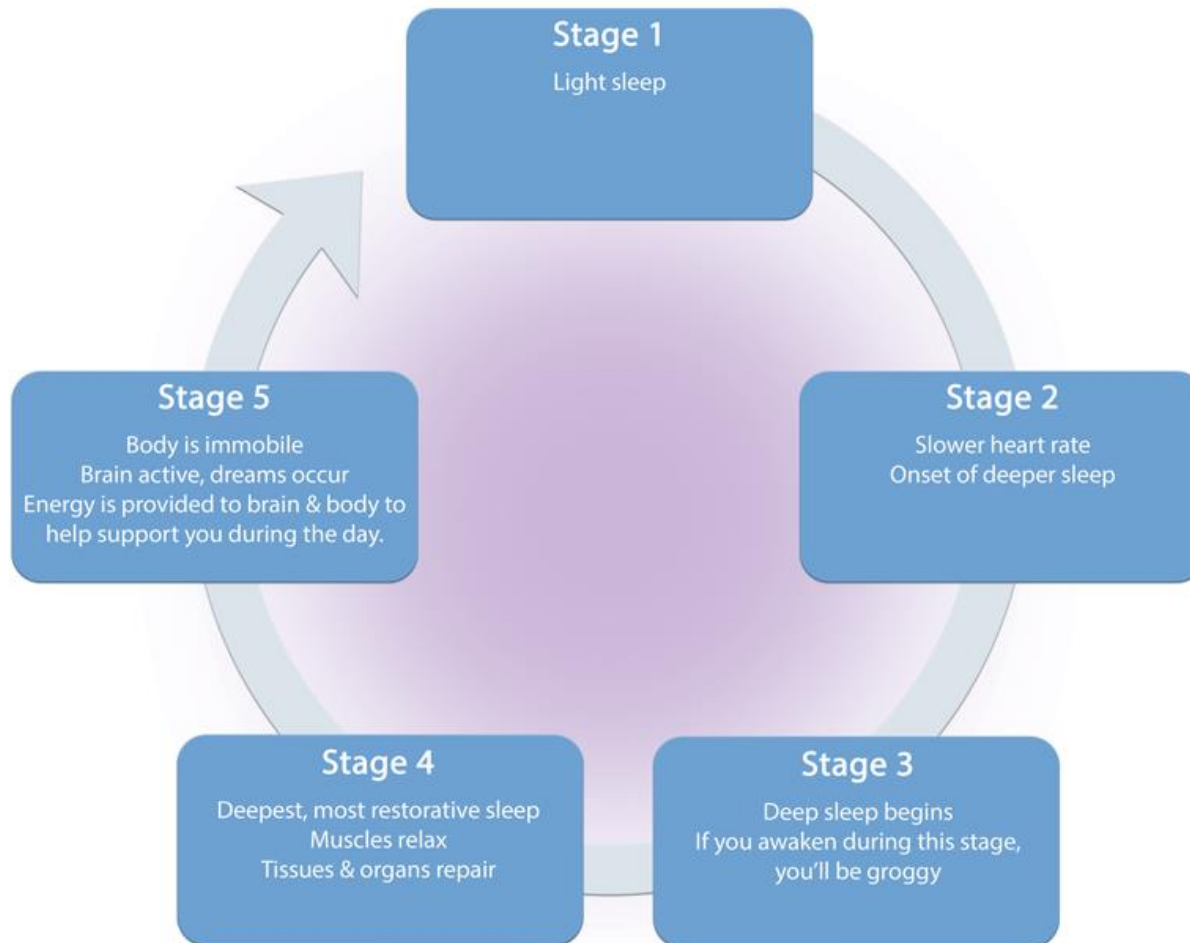
- Many experience symptoms but are undiagnosed and untreated
- Medical treatments are improving
- Lifestyle changes:
  - Weight loss
  - Exercise
  - Side sleeping
  - Avoid alcohol at night

## The Sleep Cycle

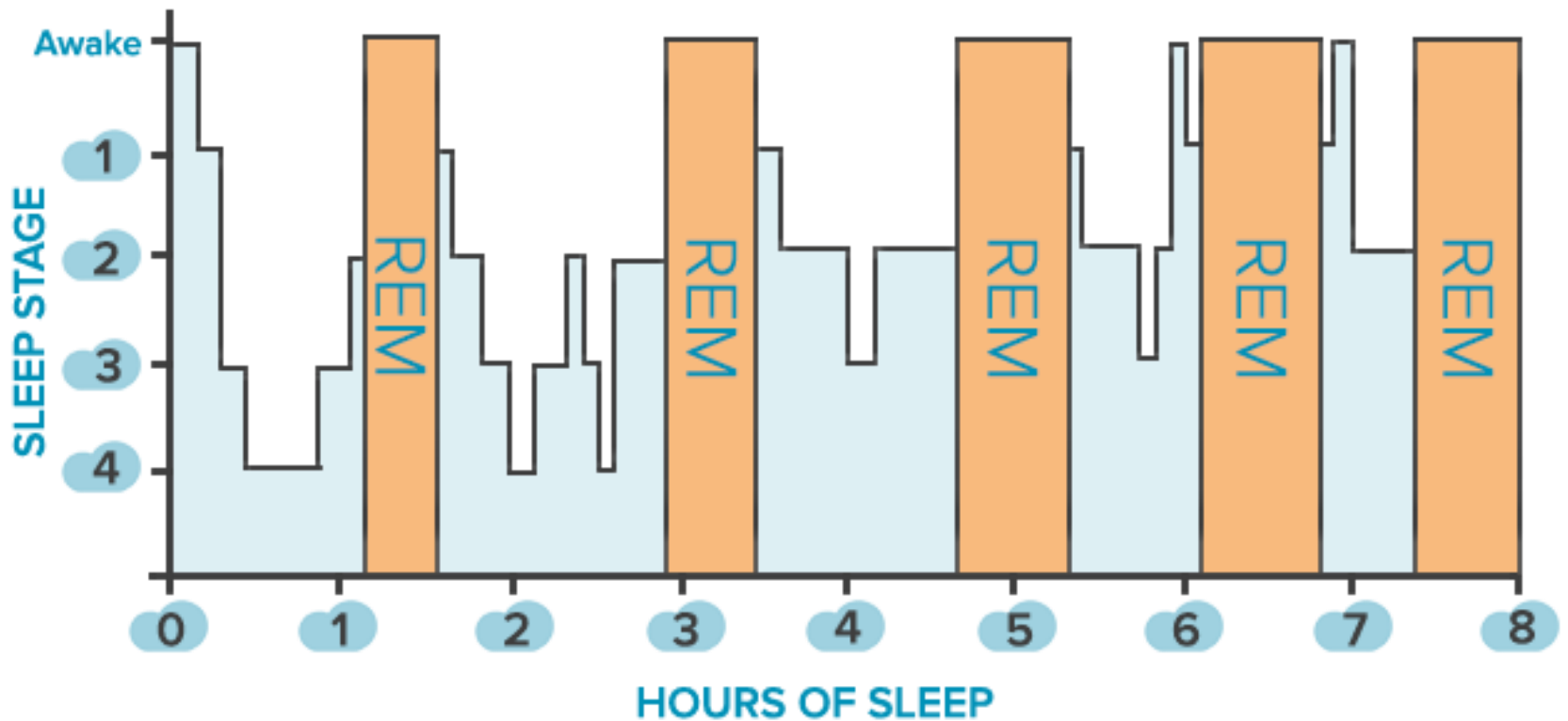
- Repeated 3-4 times per night, each cycle lasting 90-120 minutes
- All stages needed for different benefits to brain and body

# Sleep Cycle

On average, this cycle lasts 90-120 minutes and happens 3-4 times per night  
The other stages decrease and the REM cycle increases in length as the night progresses



# Stages of Healthy Sleep



## Rapid Eye Movement (REM) Stage

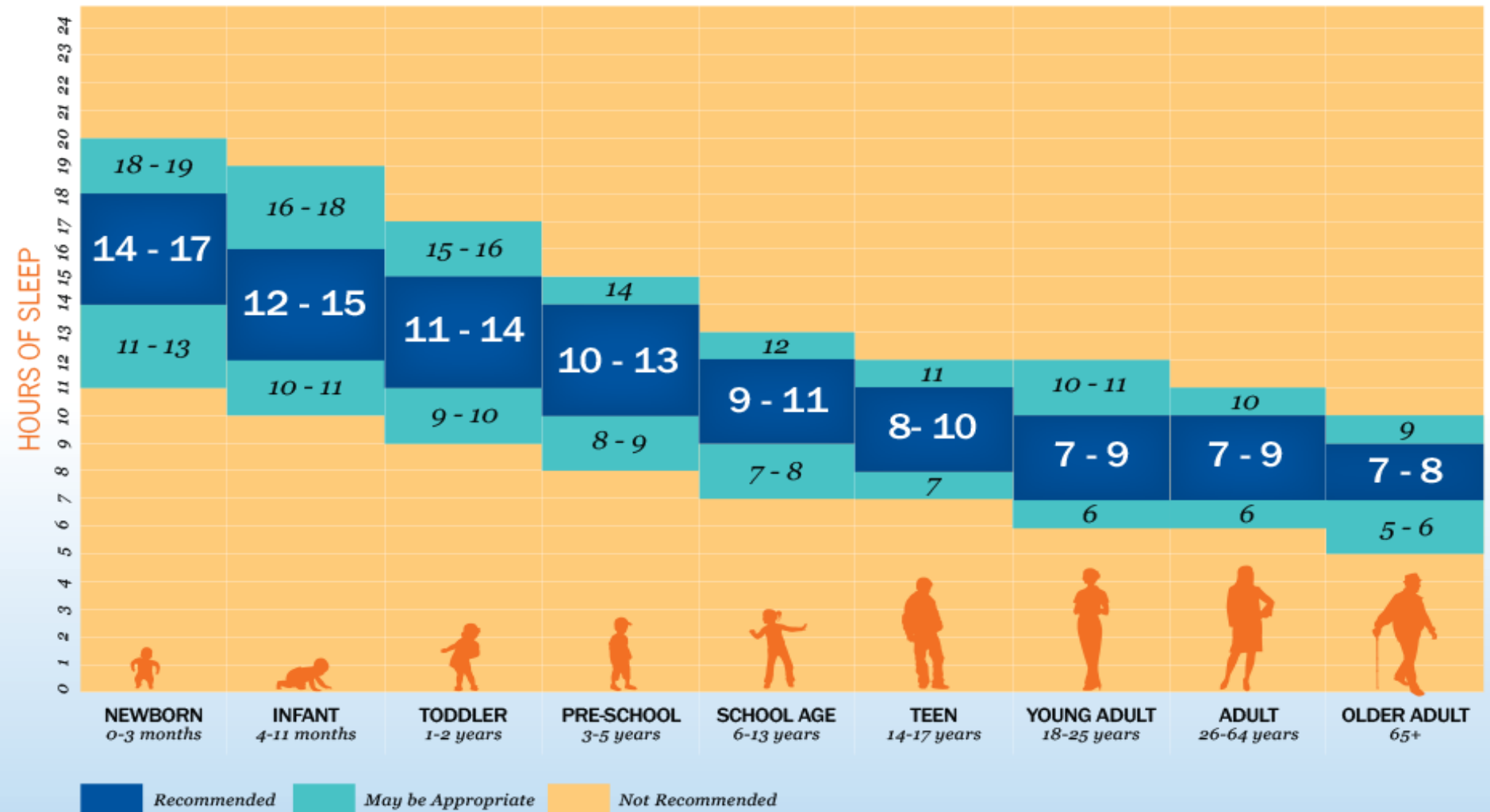
- No shortcut to REM – The Restoration Phase
- May be the most important sleep phase for:
  - Memory processing
  - Learning
  - Daytime productivity

## How Much Sleep Do I Need?



- Sleep experts recommend an average of 7-9 hours per night
- Some need less
- Some need as much as 10 hours to feel alert the next day

# SLEEP DURATION RECOMMENDATIONS



## Sleep and Health

- Increased sickness
- Amplified depression/negative mood
- Behavioral and relationship problems
- Higher risk of chronic diseases:
  - Hypertension
  - Heart Disease
  - Stroke (increases by 4x)
  - Diabetes
  - Cancer

# HOW SLEEP AFFECTS YOUR HEALTH

## SLEEP DEPRIVATION

### IMPAIRED COGNITION

Lack of sleep impairs memory and your ability to process information.

### HIGHER LEVELS OF ANXIETY

Lack of sleep raises the brain's anticipatory reactions, increasing overall anxiety levels.

### STROKE RISK

When you sleep 6 hours or less a night, your chance of a stroke increases 4x.

### INCREASED RISK FOR DIABETES

Lack of sleep increases cortisol and norepinephrine, both are associated with insulin resistance.

### INCREASES SYMPTOMS OF DEPRESSION

A lack of sleep disrupts neurotransmitters to the brain which regulates mood.

### INCREASED RISK OF BREAST CANCER

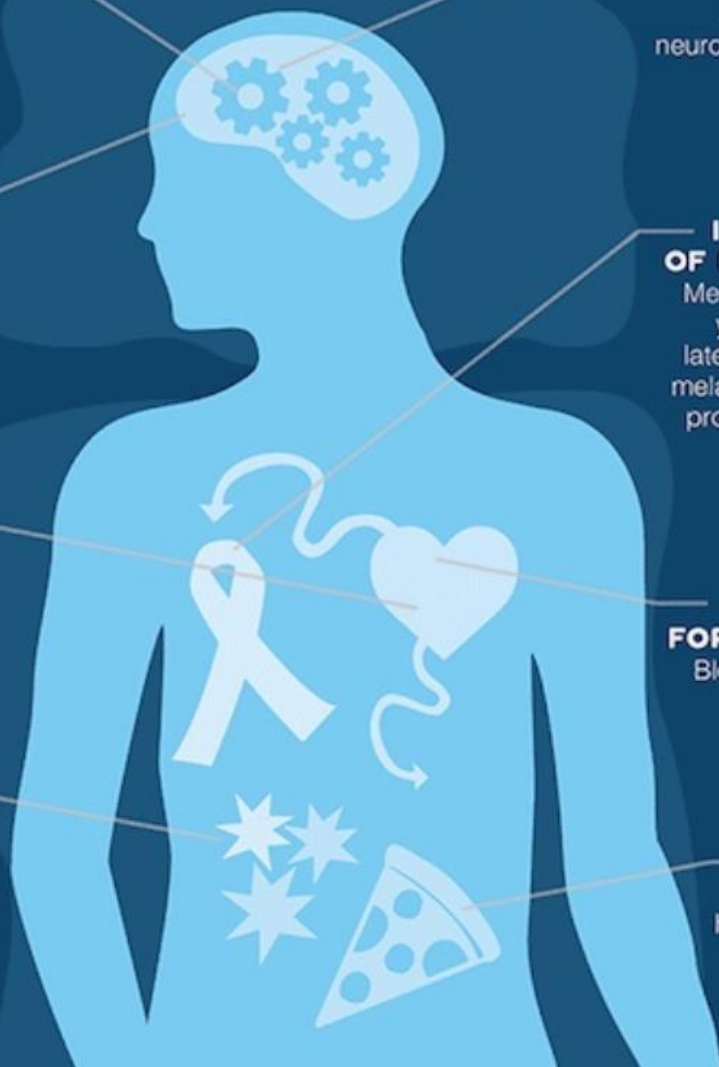
Melatonin decreases when you are exposed to light late at night. A decrease in melatonin disrupts estrogen production which can lead to breast cancer.

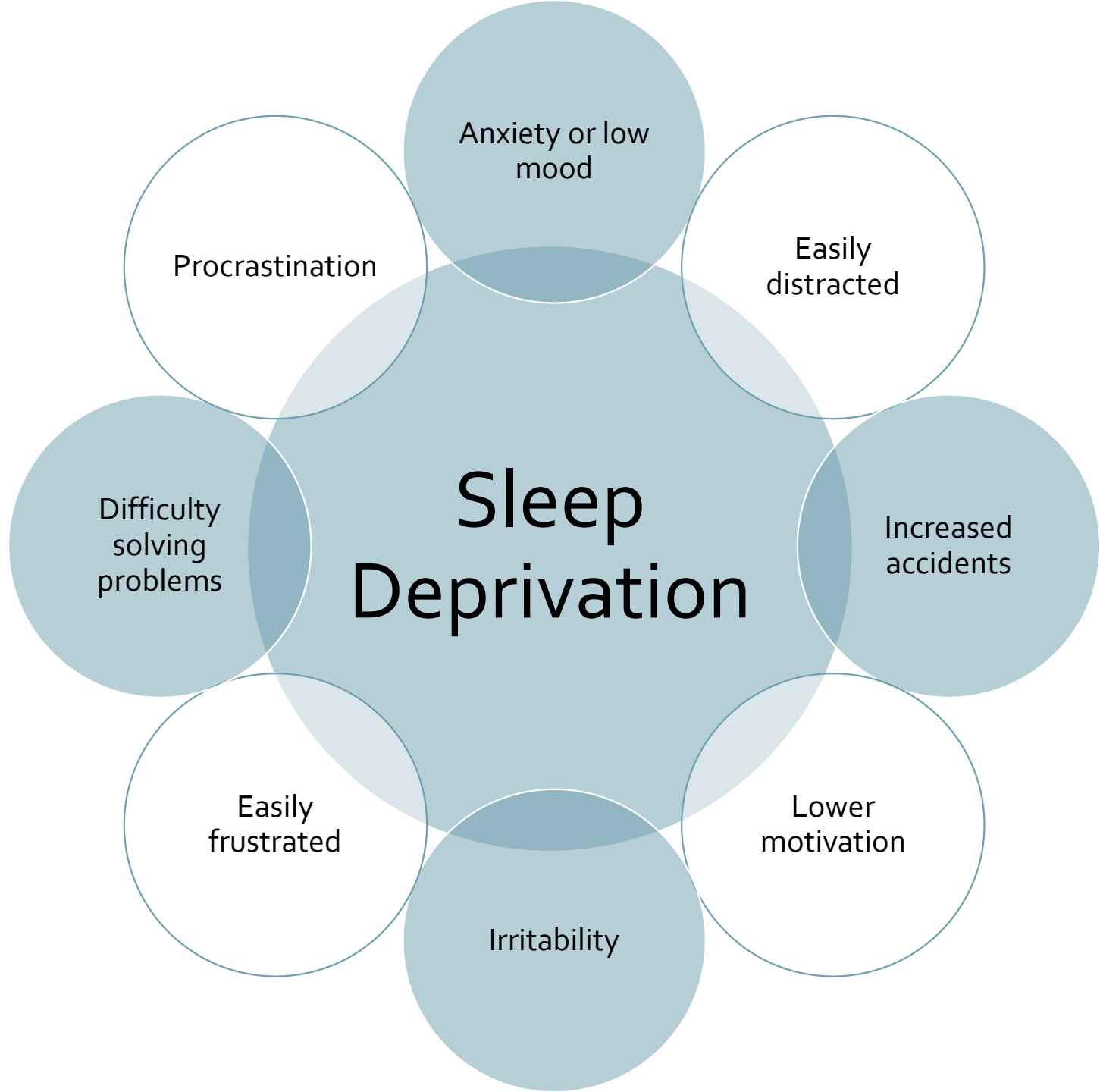
### INCREASED RISK FOR HEART DISEASE

Blood pressure decreases when you sleep.

### WEIGHT GAIN

Sleep helps balance hormones that make you feel hungry and full.





Anxiety or low mood

Easily distracted

Increased accidents

Lower motivation

Irritability

Easily frustrated

Difficulty solving problems

Procrastination

Sleep Deprivation

**AWAKE FOR 18  
HOURS = BEING  
INTOXICATED**



## Sleep & Managing Weight

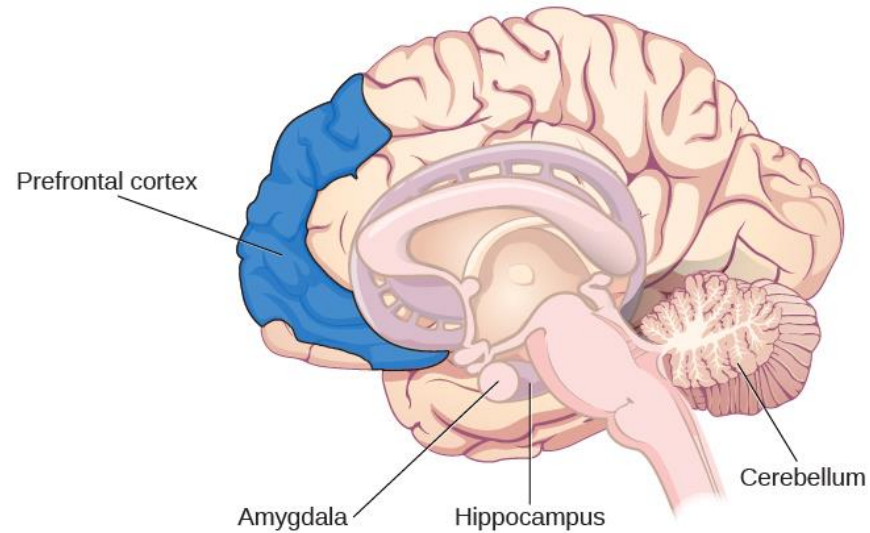
7-9 hours helps manage weight

6 hours → 27% greater risk of high weight

5 hours → 73% greater risk of high weight

# Sleep & Managing Weight

- Motivation to eat well and exercise
- Food preferences



## Sleep & Managing Weight

- Sleep debt disrupts metabolism and hormone levels
- Manifestations of fatigue and hunger are similar in mind and body
- Appetite levels – leptin and ghrelin

# The Solution

Consider sleep as important as exercise and healthy eating!



Sleep  
Hygiene

Habits and practices  
conducive to  
sleeping well on a  
regular basis

## Tips for Better Sleep

- Have a sleep schedule
- Create a quiet, dark and relaxing environment
- Keep your room clean and free from clutter

## Tips for Better Sleep

- Face the clock away from you
- Keep the temperature cool
- Remove all TVs, computers and other “gadgets” from the bedroom



AN HOUR LATER



## Tips for Better Sleep

- Relax before bed
- Take a hot bath before bed
- Exercise regularly
- Turn down lights signaling it's time to wind down

## Tips for Better Sleep

- Avoid naps after 3 p.m.
- Have the right sunlight exposure
- Don't lie in bed awake
- Don't hit snooze

## Tips for Better Sleep

- Journal
- Try side sleeping
- Avoid caffeine and nicotine 3-4 hours before bed
- Avoid alcoholic drinks before bed

## Tips for Better Sleep

- Avoid beverages and large, high-fat meals 2-3 hours before bedtime
- Avoid medicines that delay or disrupt your sleep if possible
- Do 'Night' or 'Bedtime' Yoga
- Practice relaxation techniques

# Progressive Relaxation

*Each group: Hold 10 seconds then relax 30 seconds*

- Forehead – Raise your eyebrows
- Cheeks and nose – Wrinkle nose and squint
- Jaw – Clench teeth
- Lips and tongue – Press lips together and tongue to roof of mouth
- Neck and throat – Tuck chin and push head backward
- Shoulders – Pull shoulders towards the ears

# Progressive Relaxation

*Each group: Hold 10 seconds then relax 30 seconds*

- Arms – Contract upper/lower arm muscles
- Hands – Make a fist
- Abs/Back - Pull abdomen in and arch back
- Legs – Contract hips and upper leg muscles
- Calves – Pull instep and toes toward shins
- Toes – Curl toes
- Whole body – Tighten all muscles in your entire body

# Remember...

Sleep is a basic necessity of life.  
It is as important as air, food and water.

**Treat it like it matters!**

## Resources

- National Sleep Foundation  
*sleepfoundation.org*
- *www.webmd.com/sleep  
disorders/default.htm*
- *http://www.cdc.gov/sleep*
- *http://www.healthline.com/health/healthy  
-sleep/top-insomnia-iphone-android-  
apps#2*

## Wellness Happenings

- Healthy Utah Testing Sessions
- Monthly Wellness Challenges
- Webinars – Quarterly on the 1<sup>st</sup> working day of the month
- Have you set up your personal [pehp.org](http://pehp.org) account?



THANK YOU &  
Sleep Tight!

*Jody Treu*

*[jody.treu@pehp.org](mailto:jody.treu@pehp.org)*