

# Jesus Was a Good Sleeper

Faith, Works, and Quality Sleep



*During healthy sleep, the brain explodes with activity, often up to 30% more activity than when we are awake.*

***“Jesus was in the back of the boat sleeping on a cushion.” Mark 8:25***

**House Church**

Paul Feiler, Ph.D., [pfeiler51@gmail.com](mailto:pfeiler51@gmail.com), 713-256-9039



# Jesus Stills the Storm

“A squall came up, and the waves broke over the boat, so that it was nearly swamped. Jesus was in the stern, sleeping on a cushion.” Mark 4:37-38 (see also Mt 8:23-27; Lk 8:22-25)

- Jesus has had a long day. In the morning, as he was walking by the sea of Galilee, a large crowd gathered around him so that there was no room on the beach for him to teach. So he got into a boat along the shore and, for most of the day, taught the crowd from there.
- Near the end of the afternoon, the crowd dispersed, and Jesus continued to teach his closest followers, who were just getting to know him, telling them the meaning of the parables he had just taught to the crowd.
- Jesus tells them that he wants to go to the other side of the lake. They take off in the same boat he had been teaching in all day. Jesus is tired and goes to sleep on a cushion in the back of the boat.
- A storm comes up threatening to swamp the boat. Jesus is still sleeping. The disciples are afraid so they wake him up.
- Jesus tells them that if they had more faith, they wouldn't be afraid (and could probably be sleeping like he was!). Jesus calms the storm.
- Jesus' sleep was an expression of his trust in God.

**What does faith have to do with stilling the storms of life so that quality sleep is possible for us? How do faith and works combine to cure insomnia?**

# Sleep Is God's Gift to Us

- Psalm 127:2. “God grants sleep to those He loves.”
- Psalm 4:8. David says, “I will lie down in peace, for you alone, Lord, make me dwell in safety.”
- Matthew 11:29. “Rest” is a condition of the soul for those who know that they are loved by God.”
- Psalm 23. “He makes me lie down in green pastures, beside quiet waters, He refreshes my soul.”
- Psalm 91. “Whoever dwells in the shelter of the Most High, will rest in the shadow of the Almighty. You will not fear the terror of the night.”
- Proverbs 3:21. “When you lie down, you will not be afraid, your sleep will be sweet.”
- Contrast Daniel 2:1. “In the second year that Nebuchadnezzar was king, he had a dream. It worried him so much that he couldn't sleep.”

**God wants us to experience the benefits of sleep. Faith in God, combined with faith-inspired actions help us experience those benefits.**

## **Are You Interested in Learning More?**

What if I told you that neuroscientists have recently discovered a simple way to increase memory, energy, and workplace productivity, to rejuvenate the immune system, warding off cancer, dementia, anxiety and depression, to reduce your heart rate and blood pressure, to improve the benefits of a good diet and exercise, to take the sharp edges off of worrying thoughts, and to generate greater empathy and improve relationships.

**Would you be interested in learning more?**

**The simple treatment is a good night's sleep.**



# Understanding Sleep

- What causes us to fall asleep and wake up?
- What happens in our brain when we sleep?
- How much sleep do we need?
- What are the benefits of sleep?
- What problems do we experience if we don't get enough sleep?
- What keeps us from getting quality sleep?
- What happens to sleep as we get older?
- What promotes quality sleep?
- How can our faith and the way we live out our faith help us sleep better?



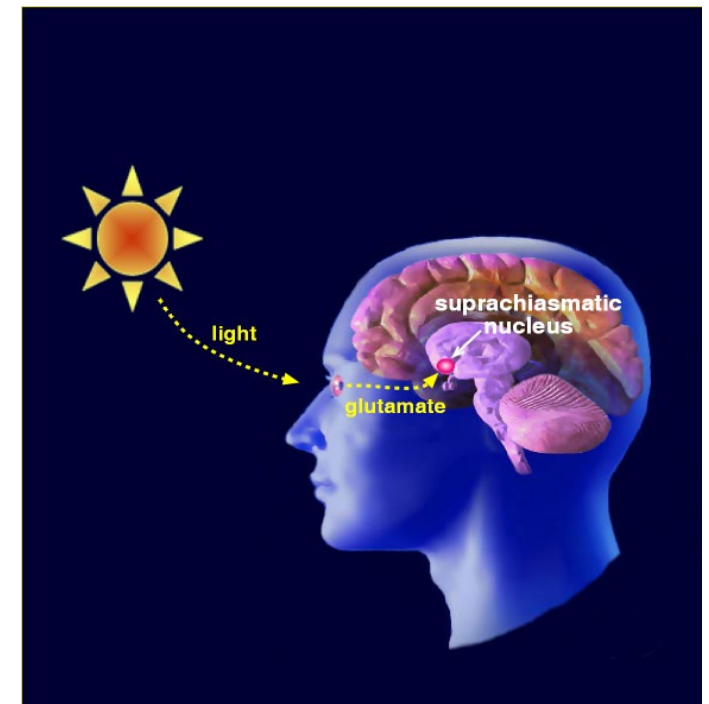
**For Christians, underlying the science of sleep, which we discuss here, is the belief that this science enhances our understanding of how God made us, how God sustains our lives, how God heals us, how God prepares and empowers us to face the challenges of the day, how God has given us sleep to bless us, and how we can best take advantage of this blessing to thrive and live life as God intended for us to live it.**

# What Causes Us to Fall Asleep and Wake Up?

## Two Coordinated Biological Processes

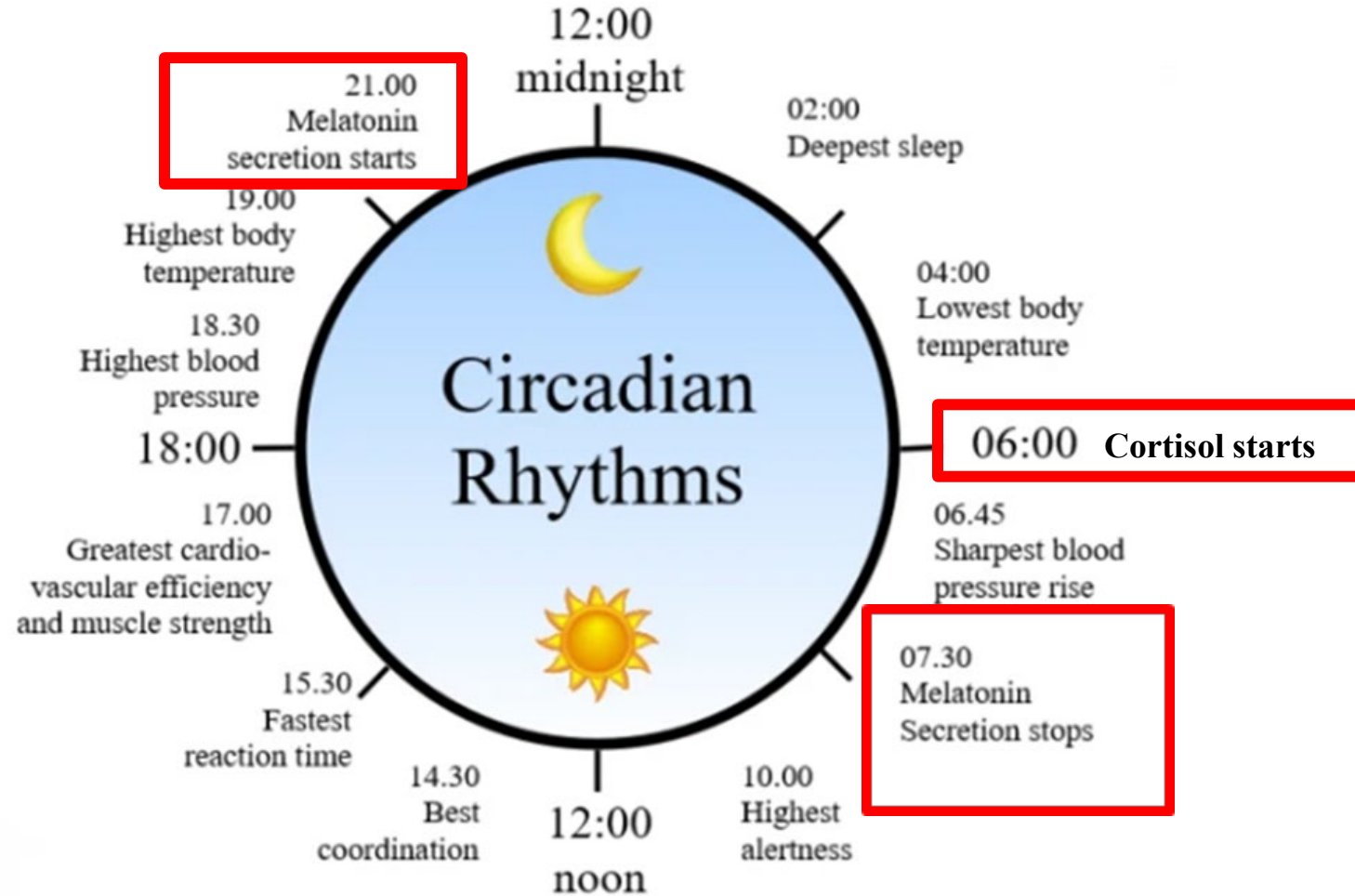
1. “Sleep Pressure” makes us increasingly sleepy during the day. As soon as we wake up, we start using energy to live our lives. As we burn energy, our body produces a chemical called **adenosine**, which, throughout the day, increasing accumulates in our brain, making us very sleepy by the end of the day. Adenosine is flushed from our brains every night during the deepest parts of our sleep, so that we wake up feeling refreshed.
2. Circadian Rhythms (our biological clock; in Latin, “circadian” means, “about a day”)

- **Suprachiasmatic Nucleus (SCN)**; a tiny part of the brain, only about 20,000 cells, but it plays a huge role. The SCN regulates sleep, sleep cycles, waking, body temperature, digestion, blood pressure, and other psychological and biological processes.
- Keeps time (about a 24-hour clock, corrected each day by **light**); releases chemicals at specific times of the day to start and stop biological processes.
- Releases **melatonin** to put us asleep, then reduces melatonin through the night to keep us sleeping, then releases **cortisol** (an arousing chemical) in the morning to wake us up.
- Is kept on schedule by light. Sight is not the only function of our eyes, The retina is directly connected to the SCN, which triggers sleep and wakefulness.





# Circadian Rhythms and Your Biological Clock

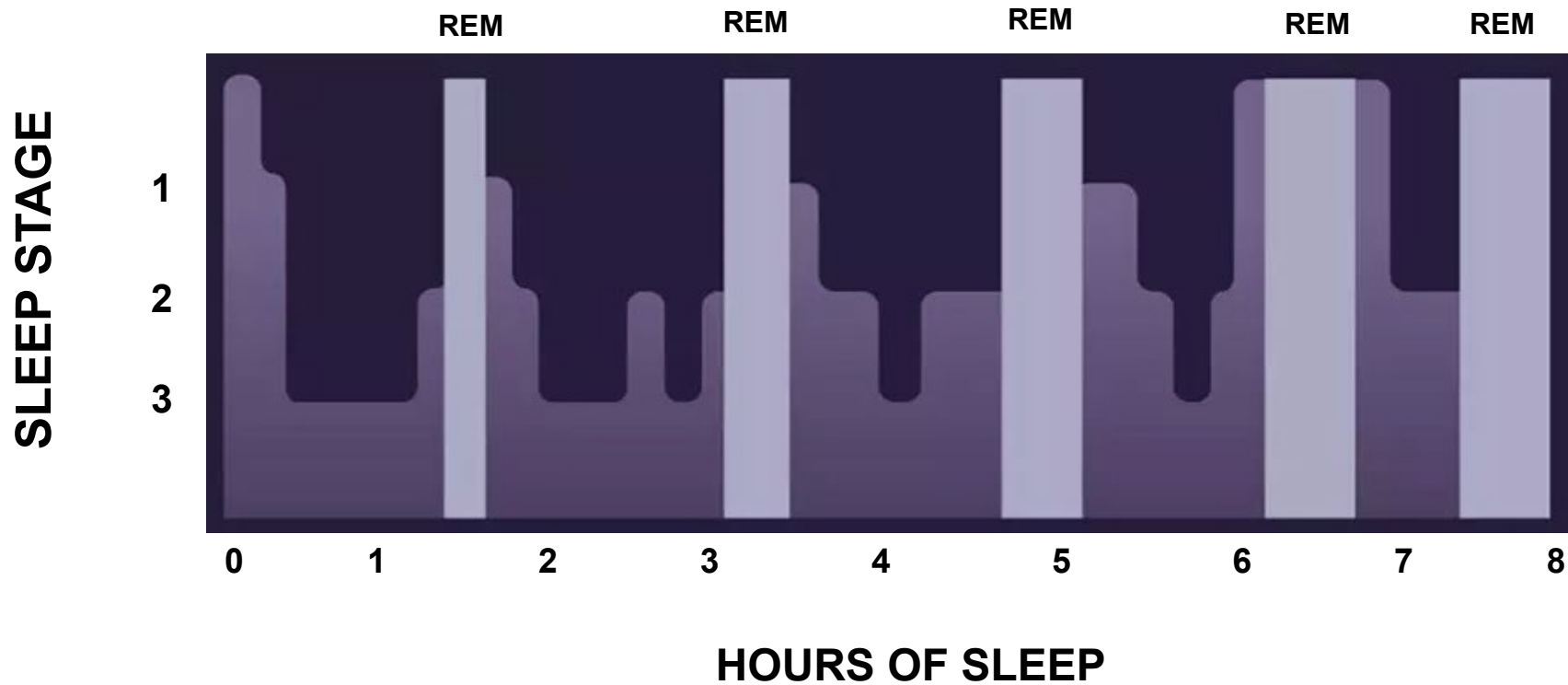


Sleep Pressure (Adenosine) makes you sleepy; Circadian Rhythms: Melatonin puts you to sleep and Cortisol wakes you up. Extra burst of Cortisol about 3pm rouses you for the rest of the day.

# What Happens in Our Brain while We Sleep?

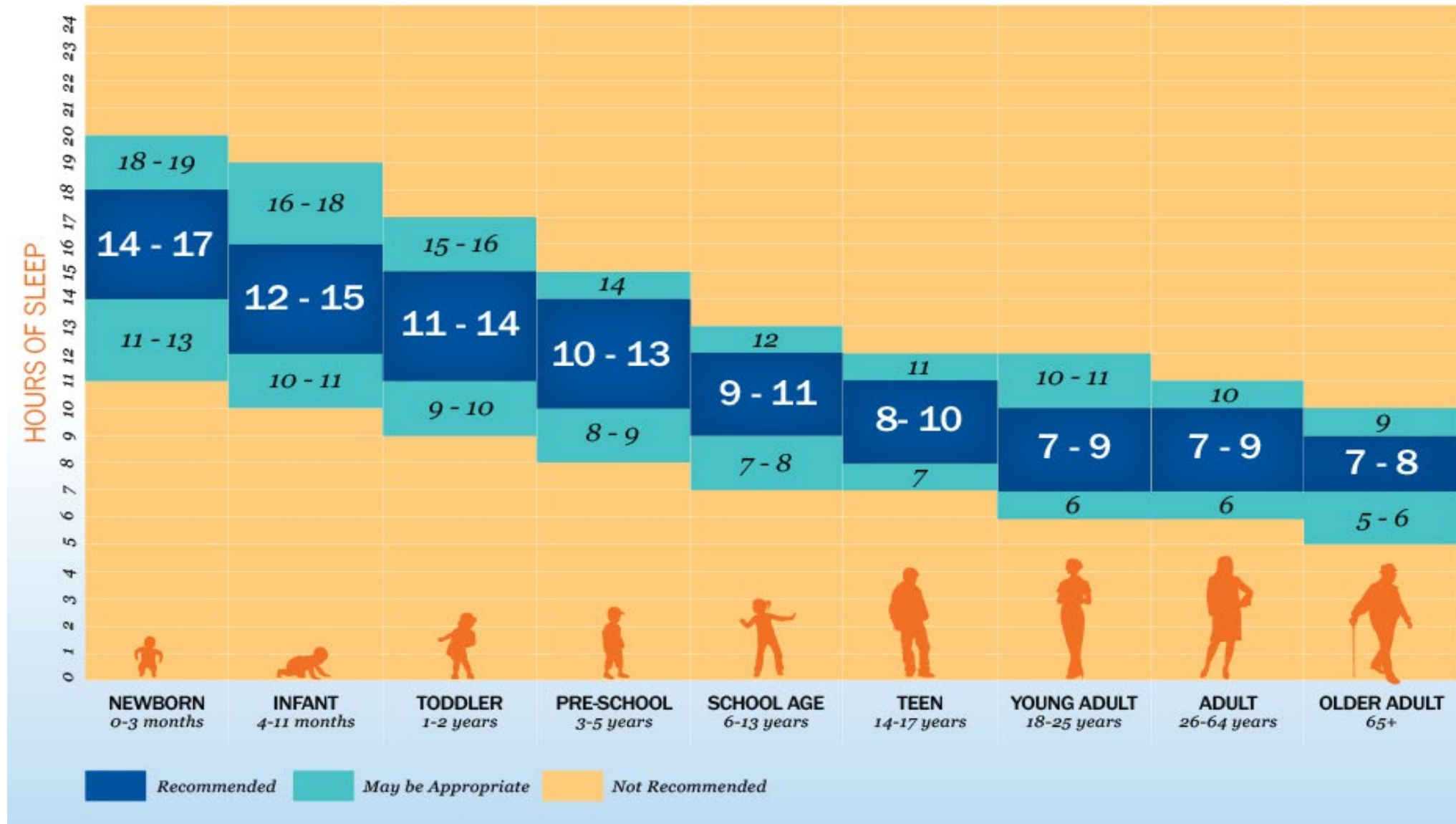
- 1. A Good Night's Sleep.** Four Stages of Sleep reoccur each 90 minutes and are repeated 5 times during our 7-8 hours of sleep each night.
- 2. The Four Stages:**
  - The last stage of sleep is called **REM sleep**, because during this stage of sleep, our eyes are rapidly moving side-to-side. REM = **Rapid Eye Movement**. Our eyes are moving, but the rest of our body is paralyzed.
  - Before starting REM sleep, we move sequentially through the three other stages (non-REM 1, non-REM 2, non-REM 3). Our eyes are not moving, so it's call non-REM or NREM. **Of these, NRM stages, NREM 3 (deep sleep) is the most important.**
  - Almost all the great things that sleep does for us happen during NREM 3 and REM sleep, so we'll talk about these two stages throughout this presentation.
- 3. The Five Cycles.** We repeat the four stages of non-REM and REM sleep five times throughout the night (each cycle is 90 minutes long). As we move through the four cycles, the periods of NREM sleep get shorter and the periods of REM sleep get longer (see chart on the next page).

# Four Stages and Five Cycles of Healthy Sleep



If you only sleep for six hours, you lose most of your REM sleep and corresponding benefits.  
If you can't reach NREM 3 during the first half of the night, you lose its benefits.

# How Much Sleep Do We Need?



Sleep requirements vary by age. The older we get the less we need.

# The Benefits of Healthy Sleep

NREM-3 (Deep Sleep)	REM (Dreaming Sleep)
1. Brain releases Human Growth Hormone to <u>repair damaged tissue, build bones and muscles</u> .	1. Provides <u>overnight therapy</u> , takes the sharp edges off any worrying thought we might have had before bed.
2. Clears brain of adenosine; this process that makes you feel <u>alert and refreshed in the morning</u> . When adenosine is not released during the night, we experience fatigue the next day.	2. <u>Heals emotional wounds</u> , one of the functions of dreaming. Emotional centers of brain, over 30% more active than awake. Heals memory of traumatic experiences. Critical for PTSD.
3. Rejuvenates the <u>immune system</u> , replenishes cells that attack the causes of illness; makes the whole system more sensitive to these invaders; also limits inflammation and helps vaccines work. NREM sleep is the best health insurance.	3. <u>Promotes learning</u> , this is the time when we learn. Takes new things that we've learned during the day and repeats them, etching them into our memory. All learning takes place during REM sleep. That's why "all-nighters" don't work.
4. Transfers some experiences or facts to <u>long-term memory</u> (from the brain's inbox—the hippocampus—to the thinking part of our brain, the cerebral cortex). Whole brain "lights up" (coordinated activity throughout the brain). Like hitting the "save" button on your computer.	3 (continued). In this process, the new <u>information is added to and associated</u> with the arsenal of memory we previously had. We can now better <u>solve problems</u> or come up with solutions we had never thought of. Brain test previously unthought of associations (Edison, Mendeleev).
5. <u>Reduces heart rate and blood pressure</u> by 10%-20% to rest and reset circulatory system.	4. <u>Deletes irrelevant memories</u> (e.g. where I parked the car yesterday vs 3 years ago).
6. Improves <u>metabolism</u> , rests digestive system and gives it a chance to recover from the day.	5. Inspires <u>creativity and love</u> .; helps us to develop love and the ability to empathize.
7. Recharges our energy battery; <u>produces sources of energy</u> for body's cells that we need for the following day.	6. Supports <u>strong mental and emotional health</u> , supports emotional intelligence, empathy, able to read others' emotions
8. Limits blood flow to brain which allows brain's cleaning crew, <u>to flush out harmful waste</u> , like beta-amyloids, a protein linked to Alzheimer's disease.	7. <u>Foundational for reaping the benefits of exercise and diet</u> . Of the three factors essential for health, sleep, diet and exercise, sleep is the foundation for the other two.

# How Does Sleep Deprivation Harm Us?

- The number of people, expressed as a percentage, who can survive on 5-6 hours of sleep per night, without significant cognitive impairment, is 0%
- Sleep powers our immune system:
  - People who sleep less than 7 hours per night are 3x more likely to get a cold.
  - People who sleep 5 hours or less are 70% more vulnerable to get pneumonia.
  - People who sleep less than 6 hours per night double their risk of lung cancer, skin cancer, and other cancers.
  - Men 45 years of age or older who sleep less than 6 hours per night increase their risk of heart disease by 200%.
  - People who sleep less than 6 hours per night in the week preceding getting a flu shot have less than 50% the normal antibody response; may pertain to other vaccines
  - Sleep deprivation disrupts normal hormone production for men and women
- Increases the risk of Alzheimer's disease
- Erodes the fabric of DNA, shortening the life span
- Destroys diets, with sleep deprived, 70% of weight loss comes from lean muscle, not fat; sleep deprivation correlated with increase desire for sugary or fatty foods and lower impulse control
- Inadequate sleep raises blood sugar. Nondiabetics: 1 week of sleep disruption drives BG scores to the pre-diabetic range.
- Strong association with and cause of mental illness. 70% of those with depression have insomnia; 90% of those with anxiety disorders have insomnia. Sleep issues can cause both.

**Sleep is the best and the least expensive health insurance.**

# How Does Sleep Deprivation Harm Us? (More)

- Impacts memory and ability to learn: all-nighters don't work. Learning in the elderly. Can you teach an old dog new tricks? Ability to learn seriously impacted in the elderly by a lack of sleep (NREM-3 and REM).
- 1.2 million car accidents per year caused by sleepiness.
- Average 600 extra calories per day eaten by people who are sleep deprived.
- Day Light Savings Time, the loss of one hour's sleep on the day after losing an hour's sleep due to DST increases heart attacks by 24% on that day; the gain of one hour reduces heart attacks by 21% on that day
- Controlled studies have shown that sleep deprivation negatively affects work performance—productivity and quality—and working relationships. Without adequate sleep, employees have more difficulty concentrating, learning, and communicating. Memory lapses increase. Problem-solving abilities decline.
- Over 30% of the U.S. adult population suffers from insomnia, insomnia is present in over 80% of the cases anxiety and depression, and is now understood as a primary cause of these mental illnesses.

**Sleep is the best and the least expensive health insurance.**

# What Keeps Us From Getting Healthy Sleep?

1. Getting up early for work or school
2. Getting older. Circadian Rhythms decrease production of melatonin in the elderly
3. Worries and grief (psychological disorders, 80% of all mental disorders have associated insomnia)
4. Pain and other medical issues (neuropathy, substance abuse, cancer, diabetes, heart disease, asthma, acid reflux, thyroid disease, Parkinson's and Alzheimer's' disease)
5. Weekends
6. Social life
7. Too much caffeine (6 hour half-life); fills the brain receptors that adenosine normally occupies to make us sleepy
8. Alcohol in the evening or before bed. It's a sedative that makes us drowsy but does not lead to good sleep; keeps us from dropping down into deep sleep (NREM-3 and experiencing it's benefits (associated with more awakenings and less memory retention)
9. Jet lag and shift work, messes with circadian rhythms
10. Poor sleep habits (no regular bed or wake time; too much light, uncomfortable bed, snoring mate or dog, computer or phone, too full, too hot, watching TV in bed (especially the news)
11. Sleep disorders such as sleep apnea, restless leg syndrome, insomnia, and circadian rhythm disorder
12. Late night TV
13. Over-the-counter medications (most sleep aids are sedatives that keeps us from experiencing the deep restorative sleep of NREM-3)
14. What keeps you awake?



# What Promotes Quality Sleep?

## Cognitive Behavioral Therapy for Insomnia (CBT-I)

- The #1 evidence-based, front line treatment for insomnia is based on the idea that we can improve our sleep quality if we learn to control our **thoughts** and our **actions**.
- Recommended by all the major US and International health organizations.
- Most medical, physician, pharmacological and health organizations recommend it before trying medications.

## The treatment focuses on:

- ✓ Challenging and changing **thoughts** that keep us from sleeping (worries and negative thoughts about sleep); learning to get into bed with a clear mind.
- ✓ Learning and putting into practice **behaviors/actions** that promote a good night's sleep.

# Challenge Thoughts that Block Quality Sleep

## Challenging and changing negative thoughts:

- The foundation of many sleep problems is worry, anxiety and depression, rooted in negative habits of thought that are often irrational and should regularly be challenged.
- Worry = distorted thoughts about life and sleep that may keep us awake. Often when confronted with unexpected or unwanted news we imagine the worst, which puts us in a state of **hyperarousal**. Such habits of thought are often grounded in low self-esteem, guilt, shame or thoughts that what we are experiencing will get worse or turn out bad
  - **All-or-Nothing Thinking**. Thinking in absolutes with no middle ground. If a situation falls short of perfect, you see it as a failure.
  - **Awfulizing or Catastrophizing**. The tendency to magnify the importance of events and overestimate the possibility of disaster. “Whatever can go wrong, will go wrong.”
  - **Personalizing**. The tendency to take responsibility and blame for any unpleasant event, even if it has little or nothing to do with you. Leads to feelings of guilt, shame, inadequacy.
  - **Negative Filter**. The tendency to focus on negative details, ignoring or misinterpreting positive aspects of a situation. You put yourself down, even when you do a good job.
  - **Jumping to Conclusions**. The tendency to make a negative interpretation even when there are no facts to support you conclusion. “I saw her out with a man. She must be having an affair.”
  - **Fixed Rules (Shouldism)**. The tendency to live by fixed rules and expectations, regularly using the words “should,” “ought to,” “must,” “I can’t.” Rigid rules can make you feel guilty, frustrated and disappointed.
- CBT-I therapy encourages the sleepless to challenge distorted thoughts about life and sleep that may be keeping us awake.

**Hard to solve problems when the brain is going to sleep. The problem-solving part of our brains goes to sleep first. Everything will feel more manageable in the morning.**

# Adopt Behaviors that Promote Quality Sleep

## Action Steps that Promote Quality Sleep (Sleep Hygiene)

- Have a consistent sleep routine. Go to bed and wake up at the same time each day, even weekends
- After 20 minutes, if you can't sleep, get out of bed and go to another room; read or do something else calming; return to the bedroom when you are tired; repeat as necessary
- Use bed for sleep and sex only
- Don't do things in bed that might keep you awake, like watching television, reading, talking on the phone, or worrying. You don't want to associate your bed with anything other than restful sleep and the pleasure of intimacy.
- Avoid caffeine, nicotine, or alcohol for at least four to six hours before bedtime
- Avoid strenuous exercise within four hours of bedtime
- Avoid daytime napping, except for a 20 minute nap between noon and 2
- Avoid eating large meals or drinking a lot of water or other liquids in the evening
- Keep the bedroom a comfortable temperature, around 67 degrees. Take a bath or shower to lower your core temperature.
- Have a comfortable mattress and pillow
- Use earplugs if noise is a problem
- If you are older, you may want to talk to your doctor about taking a little dose of melatonin to make up for the reduced amount that your brain produces at bedtime due to your age. Be careful with this, too much is not good and over-the-counter melatonin is unreliable as to the labelling and how much melatonin is actually in the pill.
- Expose yourself to daytime light for at least 30 minutes early each morning
- Practice relaxation, prayer, mindfulness, meditation or other relaxation techniques to prepare for sleep.
- Don't try to go to sleep; trying only makes you anxious. Like a surfer, you can't make the wave come. Just relax and wait for it.
- An hour before going to bed, write in a thought log or diary. If anything is bothering you write it down. Spend a few minutes challenging your negative thoughts and give them over to God. Understand that during sleep, God will take the sharp edges off your worries, just with the natural sleep processes that God has blessed you with, the sharp edges will be taken off your worries and you might even be able to find a previously idea to address your situation that you hadn't thought of before.

# Faith and Works Join to Promote Quality Sleep

## **Faith (our belief, trust and thoughts about God) challenge our worries.**

- Before every worry-generating challenge of life, the first questions a Christian must ask are these: “Do I believe in God? Do I trust in God? Do I believe that God loves me and that my destiny and the destiny of the world and those in it whom I love are held securely in the hands of God?”
- God-inspired “habits of mind” begin from a place of faith. God made me and loves me; I am forgiven; God has surrounded me with blessings.
- Use a thought journal to write down and challenge your worries and then say this prayer.

**“Loving God, all these concerns I give to you. I know that tonight, during the good sleep you will bless me with, you will take the sharp edges off all my worries so that I will be able to see them in a different light once the morning dawns. I know that you will be tuning my mind, so that I may discover new ways and find new resources to address my concerns. I know that you will make me more loving, and I know that through the night you will be teaching me and giving me new reserves of energy to empower me throughout the day tomorrow. Thank you God for blessing me and loving me during this time of sleep. Amen.”**

# Faith and Works Join to Promote Quality Sleep

**Works (What we do because we know that God loves us).**

- If we know how important sleep is for our well-being and how dependent the abundant life God wants for us is on getting quality sleep, why wouldn't we seek to live in a disciplined way to incorporate into our lives the routines and actions that promote quality sleep?
- Good works are our service to and for God. God wants us to be relevant in this world, to be God's face in all human interactions. If we believe in God, if we love God, preparing to do that everyday, to the best of our ability, for as long as we can, are clear goals of Christian living.
- Adopting good sleep habits promotes and empowers a life of service (good works).

**Faith and Works join to empower the abundant life of the Christian.**

**As Christians, it shouldn't surprise us that these two foundational elements of Christian life, faith and works, are completely aligned with the best therapeutic methods for promoting quality sleep: Faith deals with our cognitions, how we think; Works deal with how we behave, motivating us to adopt behaviors that promote abundant life.**