

# Sleep, Sweet Sleep

*For the REST of Your Life*



Fred Hardinge, DrPH, RD

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PositiveChoices.com

“Unreasonable hours are destructive to the physical, the mental, and the moral powers. If the brain were given proper periods of rest, the thoughts would be clear and sharp, and business would be expedited.”  
7T 256.

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“You are God's workmanship, and with the full sense of your accountability to God you are to treat yourselves aright. Give yourselves proper time to sleep. Those who sleep give nature time to build up and repair the waste of the organism.” MM 5

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## Test Your Sleep IQ?

True or False

1. The older you get, the fewer hours of sleep you need.
2. Raising the volume of the radio will help you stay awake while driving.
3. The human body can successfully adjust to night shift work.
4. Making yourself tired with vigorous exercise before bed will help you fall asleep.
5. Sleep before midnight is better than sleep that begins afterward.
6. A sound sleeper rarely moves during the night.

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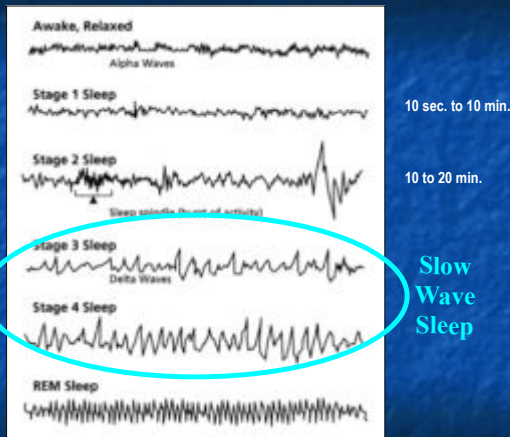
## Are You Getting Enough Sleep?

- Do you always need an alarm clock to you up in the morning?
- Do you ever sleep through your alarm?
- Is getting out of bed a struggle?
- Do you ever have to fight powerful waves of drowsiness during the day?
- Do you ever fall asleep without intending to?

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Sleep provides us with the “right stuff”. It prepares our body and mind for peak performance!

## The Stages of Sleep



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## Functions of Slow-Wave Sleep

- Restoration and Growth
  - Body recovery takes place
  - Body temperature is turned down
  - Metabolic activity is at its lowest providing for tissue growth and repair
  - Growth hormone reaches its 24 hour peak

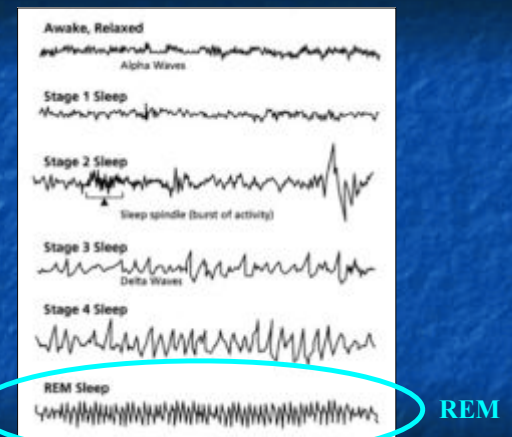
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## Functions of Slow-Wave Sleep

- Immunity to Infection
  - interleukin and tumor necrosis factor increase
  - even modest losses of sleep reduce body immunity
  - expect more colds and flu if you don't get enough sleep

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## The Stages of Sleep



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## REM Sleep - 1 "paradoxical"

- Memory Storage and Retention
  - Much of the growth of specific neural connections to physically hold memories takes place.
  - Intensive REM activity follows periods of intensive learning.
  - Disrupted sleep impairs the transfer of short-term memory to long-term memory.

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## REM Sleep - 2 "paradoxical"

- Memory Storage and Retention
  - Dramatic improvements in memory retention occur after adequate REM sleep.
  - REM deprived individuals have greater difficulty retaining recently learned material.
  - Two hours of sleep before midnight optimizes this process.

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### REM Sleep - 3 “paradoxical”

- **Memory Organization & Reorganization**
  - ideas/memories are organized into neural networks of associated ideas already in the brain
  - computer filing system connecting new learning with older information
  - memory prioritization occurs

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### REM Sleep - 4 “paradoxical”

- **New Learning & Retention through Neurotransmitter Replenishment**
  - Cells containing norepinephrine and serotonin are inactive during REM
  - Replenishment occurs during this phase of sleep, thus preparing the mind for waking activities
  - New learning depends on these substances

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### REM Sleep - 5 “paradoxical”

- **Retention of Infrequently used Knowledge and Memories**
  - Memories decay with time. (Use it or lose it.)
  - When neural connections in specific neural networks are not frequently stimulated they weaken and information loss will occur.

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### REM Sleep - 6 “paradoxical”

- **Retention of Infrequently Used Knowledge and Memories**
  - During REM-sleep, brain synapses are automatically activated in random fashion
  - REM-sleep neuronal stimulation causes strengthening of memory circuits.
  - “Think on these things.” Phil 4:8 (Refresh what?)

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“Nothing that pertains to physical perfection should be looked upon as of little importance. In eating, drinking, and dressing, the laws of health should be diligently followed, and in regulating the hours for sleep, there should be no haphazard work.

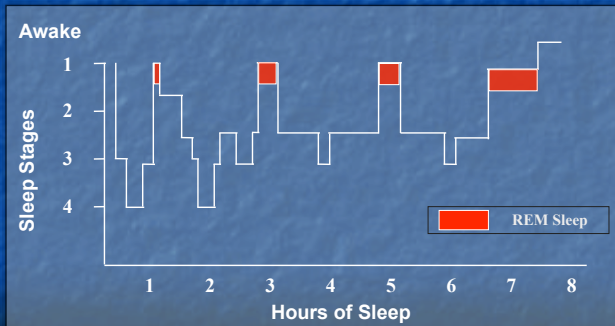
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No student should form the habit of sitting up late at night to burn the midnight oil, and then take the hours of day for sleep. If they have been accustomed to doing this at home, they should seek to correct their habits and go to rest at a seasonable hour, and rise in the morning refreshed for the day's duties. In our schools the lights should be extinguished at half past nine.”  
Christian Education 124

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## The Nightly Sleep Cycle

“Sleep Architecture”



## Importance of Good Architecture

- Short nights of sleep eliminate the long REM periods of early morning.
- Enhances learning
- Maximizes recuperative value of sleep
- Significantly improves productivity!
- Supports the immune system

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## Hinderances to Good Architecture

- Late evening meals
- Snacks just before retiring
- Irregular schedule for retiring and awaking
- Worry and anxiety
- Exercise too late in the day
- Caffeine, alcohol, some medications

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“Another pernicious habit is that of eating just before bedtime. The regular meals may have been taken; but because there is a sense of faintness, more food is taken. By indulgence this wrong practice becomes a habit and often so firmly fixed that it is thought impossible to sleep without food. As a result of eating late suppers, the digestive process is continued through the sleeping hours. (next)

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But though the stomach works constantly, its work is not properly accomplished. The sleep is often disturbed with unpleasant dreams, and in the morning the person awakes unrefreshed and with little relish for breakfast.” Ministry of Healing, 303

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## It's A Sad Fact!

Most people are totally unaware of their own reduced capabilities because they have been sleepy for so long they don't know what it is like to feel wide awake!

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## How Much Sleep Do We Really Need?



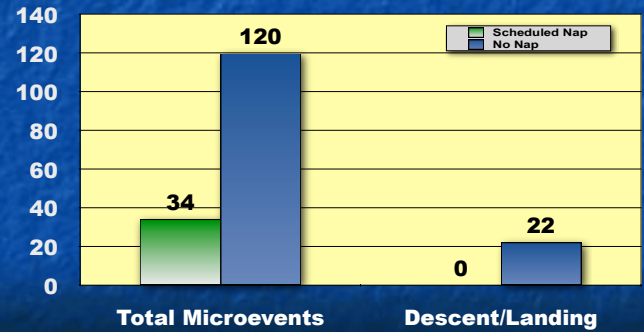
7-9 hours per night!

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## Take a Nap!

### First Aid for Fatigue

Last 90 minutes of transpacific flights



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NASA Technical Memo 103884

## Dos and Don'ts of Naps

- Sleep only 15-35 minutes
- Avoid distractions
- Schedule a nap regularly
- Space it far enough from bedtime
- Avoid caffeine and other chemical stimulants
- Avoid stimulating and depressing TV/

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## How to Get a Good Night's Sleep

### Things to Do!

- Learn to value sleep
- Establish a regular routine
- Use a comfortable, firm bed
- Keep it cool and dark
- Exercise appropriately every day
- Develop bedtime rituals
- Get adequate sleep every night
- Put your trust in God

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When you lie down, you will not be afraid; Yes, you will lie down and your sleep will be sweet. *Proverbs 3:24*

I know from the testimonies given me from time to time for brain workers, that sleep is worth far more before than after midnight. Two hours' good sleep before twelve o'clock is worth more than four hours after twelve o'clock. . . . 7MR 224.3

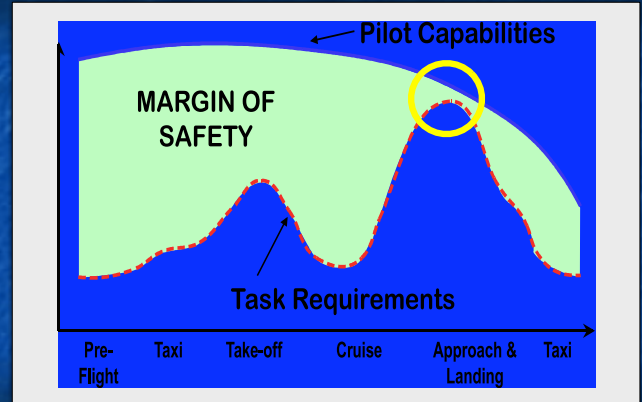
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## How to Get a Good Night's Sleep

### Things Not to Do!

- Eat before going to bedroom
- Use alcohol or stimulants like caffeine or nicotine
- View exciting or depressing TV
- Use sleeping pills for more than 2-3 nights
- Use your bedroom for work
- Avoid naps after 3:00 PM

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“Tonight’s sleep  
builds tomorrow’s  
energy!”

*Bernell Baldwin, PhD*



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