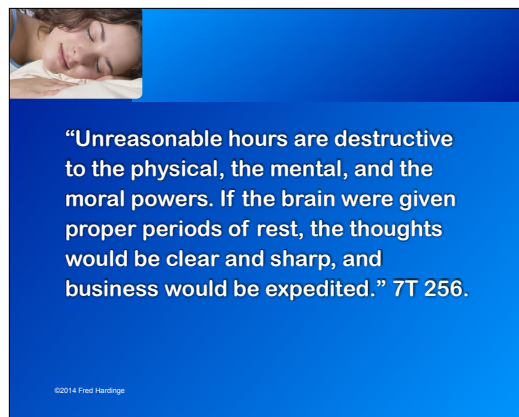
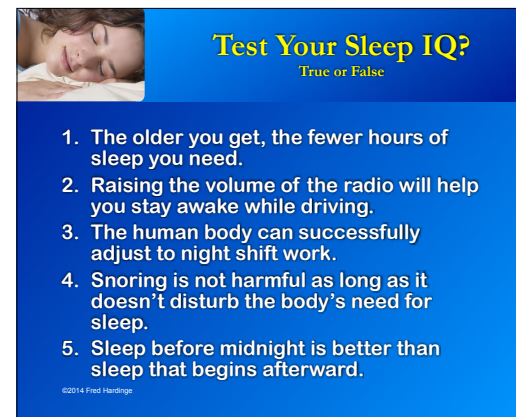




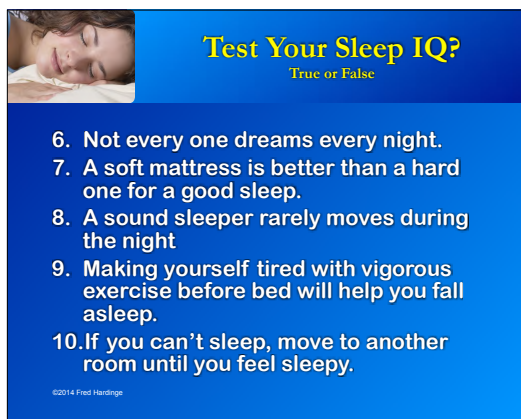
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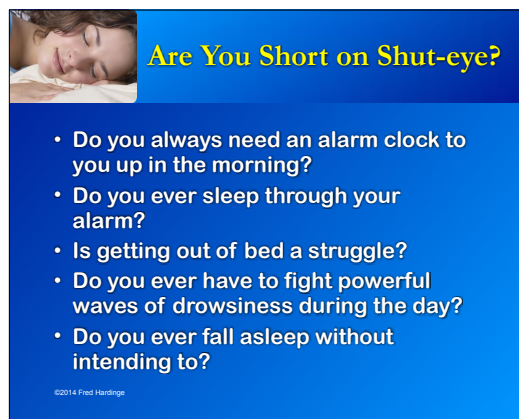
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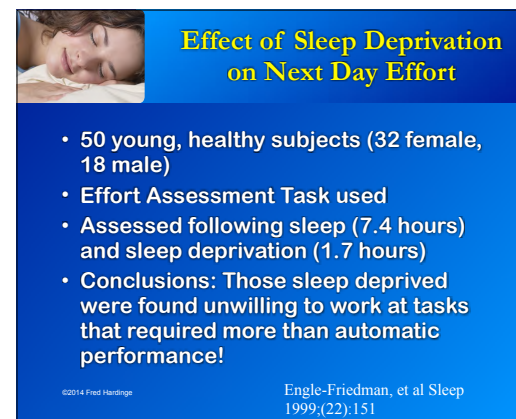
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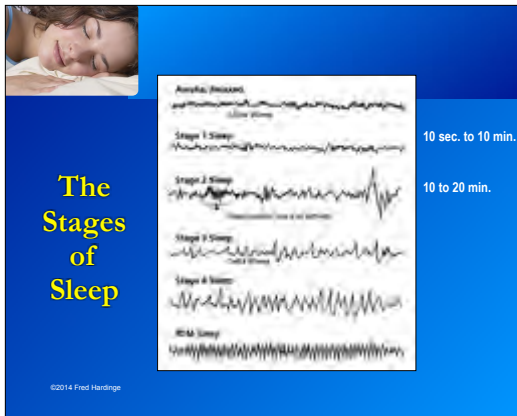
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6



7

Functions of Slow-Wave Sleep

- **Restoration and Growth**
 - Body recovery takes place
 - Blood supply to the muscles is increased
 - Vigorous exercise stimulates
 - Body temperature is turned down
 - Metabolic activity is at its lowest providing for tissue growth and repair
 - Growth hormone reaches its 24 hour peak
 - especially important for children & teens

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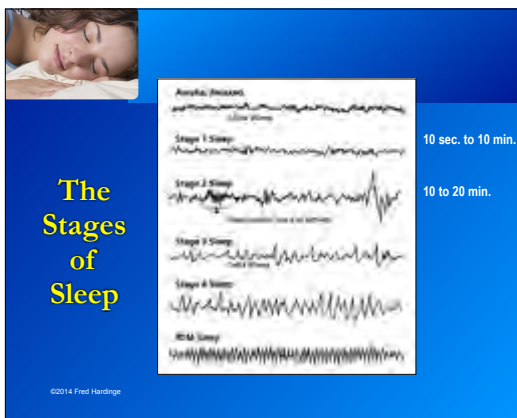
8

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 are sleep deprived

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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.

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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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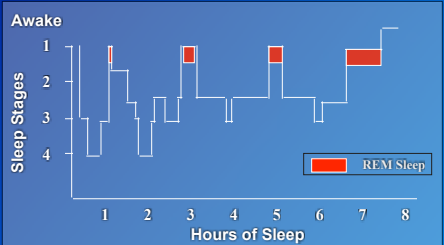
“Nothing that pertains to physical perfection should be looked upon as of little importance. In eating, drinking, and dressing, the laws of health should be diligently followed, and in regulating the hours for sleep, there should be no haphazard work. No student should form the habit of sitting up late at night to burn the midnight oil, and then take the hours of day for sleep.

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The Nightly Sleep Cycle “Sleep Architecture”



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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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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 Need?



8-9 hours per night!

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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/reading

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

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How to Get a Good Night's Sleep

Things Not to Do!

- Eat before going to bed
- 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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Peter is Tired and Denies Jesus!

"And when he thought about it, he wept."
Mark 14:66-72

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Spiritual Consequences of Fatigue

1. Increases Susceptibility to Temptation

Anything that lessens physical strength enfeebles the mind and makes it less capable of discriminating between right and wrong. We become less capable of choosing the good and have less strength of will to do that which we know to be right. COL 3:46

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Spiritual Consequences of Fatigue

2. Lack of Spiritual Vigilance

"And if he should come in the second watch, or come in the third watch, and find them so [watching], blessed are those servants. . . Therefore you also be ready, for the Son of Man is coming at an hour you do not expect."
Luke 12:38-40

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Spiritual Consequences of Fatigue

3. Diminishes spiritual insight into God's Word.

"Hearing you will hear and shall not understand, and seeing you will see and not perceive; for the heart of this people has grown dull. Their ears are hard of hearing, and their eyes they have closed, lest they should see with their eyes and hear with their ears."
Isaiah 6:9-10

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Spiritual Consequences of Fatigue

4. Lessens Desire to Communicate with God



“Sometimes when fatigued by labor or oppressed with care, parents do not maintain a calm spirit, but manifest a lack of forbearance that displeases God, and brings a cloud over the family.”ST

April 17, 1884

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Spiritual Consequences of Fatigue

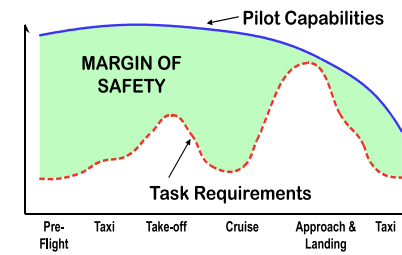
5. Disorientation & Loss of Anchor Points

“For false christs and false prophets will rise and show signs and wonders to deceive, if possible, even the elect.” Mark 13:22

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Task Requirement



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**Fatigue is the Devil's
end run around
God's end-time people!**

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“God instituted the Sabbath as a day of rest to repair nature's exhausted energies. No mind can continue day after day without cessation, either in business which taxes the mental powers, or in the acquirement of knowledge, without injury. There is no night in Heaven. There is no wear and weariness of the human machinery. . .

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There we shall never be sensible of fatigue; never need or want repose. There is no tire in performing God's will; we shall never be wearied in sounding his praise. We shall always have the freshness of the morning. **But as we are now in this world, with bodies which weary, we must pay heed to God's plans, and take repose when we need it.**

PHO43, p. 39
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**“Tonight’s sleep
builds
tomorrow’s
energy!”**
Bernell Baldwin, PhD



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**A rested person will
accomplish more in less
time and do it better, more
effectively, and safely!**

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