

# *Sleep Myths*



11/21/2012

**MYTH**

**"1"**

**The optimal amount of  
sleep is eight hours.**

# **BUSTED!**

## **Everybody sleep need is so individual**

- NO Magic number .
- The right amount of sleep for you is the amount of sleep that allows you to wake up refreshed and able to carry out the activities of the day.

- Number of hours in bed may not be as important as the quality of those hours.
- 2005 study by the National Sleep Foundation, confirmed that sleep needs vary across populations.
- They reported that generally 7-9 hours of sleep for adults is adequate.
- This same study calls for further research to identify traits within genes that may provide a "map" to explain how sleep needs differ among individuals.

- The theory is that a considerable amount of sleep-related behaviors such as when and how long a person needs to sleep, is regulated by genetics.
- Researchers have discovered a gene, **ABCC9** which seems to influence the duration of human sleep.
- University of California study of more than one million adults, found that people who self-report sleeping for six to seven hours each night, live the longest .
- "The ABCC9 of Sleep: A Genetic Factor Regulates How Long We Sleep". Science Daily./ Rhonda Rowland (2002-02-15).

To figure out what generally is your ideal “amount” of sleep

## TRY

- 1) Letting yourself sleep as long as you need for a few days ( a week to 7 days)
- 2) By the end of the week you will probably be falling asleep and waking up at the same time.

How many hours do you sleep?

\*\*\* that's your number\*\*\*\*

**MYTH**

**"2"**

**Falling asleep during the  
day means you're lazy!**

# BUSTED!

- This means you are **TIRED!!**
  - You either not getting enough sleep (**quantity**)
  - or
  - You are having a restless or disturbed sleep (**quality**)
- If you are well rested its virtually impossible to fall asleep even at the most boring of times...

William Dement, a renown researcher at the Stanford University, came to the conclusion that;

**“If you believe that boredom, a warm room, or a heavy meal causes sleep, you are completely wrong!**

- A 2002 study estimated that about 18 percent of U.S. survey participants, said they had fallen asleep or become drowsy in situations like meetings and conversations when they should have been concentrating.
- "It's no secret that we live in a **24 - 7 society**,"
- "**We get 20% less sleep than previous generations.** Yet there is no evidence that earlier generations required more sleep - or that ours needs less," [Hunt]

- There are more than 80 different sleep disorders.
- It has been reported that **40- 70 million** people in the U.S. have a chronic sleep disorders
- Dr. Charles M. Morin reported that from his research, 40% of adult Canadians suffer from sleep disorders.

# Assessing Sleep what to look for?

- inability to fall asleep or stay asleep at night
- snoring, snorting, and gasping sounds
- headaches in the morning
- no noise, pauses in breathing
- "creepy-crawly" or twitching feeling in your calves, feet, thighs, or arms

- Depression, Anxiety
- Illness
- Chronic pain
- Dry mouth
- Irritability
- Look at the actual amount of “sleep” you are getting

These are clues that may help you figure out why your tired .

**MYTH**

**“3”**

**A nap during the day has  
know effect on night-time  
sleeping.**

# PLAUSIBLE.

Short naps generally don't affect night time sleep quality.

\*\* If you have no issues falling asleep, a nap is okay.....

**However**, if you experience insomnia or poor sleep quality at night, napping might worsen these problems.

Long naps might interfere with night-time sleep.

- Winston Churchill first coined the term "power nap", Albert Einstein, Eleanor Roosevelt, Margaret Thatcher were early afternoon nappers.
- As were Bill Clinton and Ronald Reagan

Daily naps of between 20 and 30 minutes before 4:00 pm  
CAN increase your mental performance.

Researchers at a College in Pennsylvania have found that  
dropping off for 45- 60 minutes helps to lower your  
blood pressure after a stressful event.

Or

You might just feel groggy and disoriented after waking  
up from a nap. (Sleep inertia)

Or

You may have trouble going to sleep at your normal bed  
time. You go to sleep later.... Wake up earlier.....NEED a  
nap.... Begin a cycle that's hard change

- We need to become sufficiently tired in order to sleep soundly. We need to have some type of sleep debt.
- The size of your sleep debt determines the strength of the tendency or ability to fall asleep. If your sleep debt is zero, sleep is impossible.
- If your sleep debt is very low, only a small amount of stimulation is required to keep you awake.
- If your sleep debt is very large, no amount of stimulation can keep you awake.

# *Lets think about.....*

## Sleep debt

- You awake at 6 am
- The "clock" starts ticking ( we start to draw from the 0 balance account)
- by noon you have a 6 hr debt by
- 11 pm that is a 17 hr debt
- if you body needs 17 hours of debt, to sleep you should fall asleep and wake again refreshed at 6 am.

BUT....

- If you sleep for 1 hour at 2pm, then you have in fact started to pay back the debt and decreased the amount of wake time
- This could make going to bed at 11 a little tricky you may not be tired until later.
- It is thought that the last time you were asleep is directly related to the length of time it takes you to fall asleep.
- It's recommend anyone that has problems falling asleep at night should NEVER nap during day

# The Twist

- The U.S. Centers for Disease Control and Prevention reported that 30 percent, or 40.6 million people suffer from sleep deprivation
- 69.7 percent of warehouse and transportation workers
- 52.3 percent of health-care and social assistance workers don't get enough sleep.

**Napping for some has become more of a survival tactic.**

# MYTH

“4”

*Insomnia only happens to people who are depressed or anxious.*

# BUSTED!

Insomnia can affect anyone.

- 30-40 % of Canadians suffer from some form.
- Insomnia is the most common sleep disorder reported in the general population
- One study reported that 20 out of 100 children involved in study had insomnia [archbold]

Stats Canada study 2011 provided the following information:

- 1/5 of Canadians report that they're unsatisfied with the quality of their sleep
- Just over 10% of the group reported that they had **all the symptoms** that are typically used to diagnose insomnia.
- Only 13% sought medical advice for their insomnia

## Kinds of insomnia:

- a) problems initiating sleep
- b) problems maintaining sleep
- c) waking up too early , and being unable to get back to sleep

## Can be:

**Transient:** usually 1 week or less

\*\* its not uncommon for someone to have periods of  
“transient insomnia”

**Short term:** 1 to 3 weeks

**Chronic:** lasting over 3 weeks.

# Many contributing factors to diagnosis

- medications
- Pain
- Stress ( good and bad)
- Sleep disorders – symptom of another disorder
- Travel
- Shift work

## *Look at... ..*

### 1) Primary insomnia:

- Sleep problems that are not directly associated with any other health condition or problem.
- know identifiable cause

### 2) Secondary insomnia:

- Directly related to something else.
- A health condition such as depression, arthritis, asthma, cancer, heartburn or pain.
- Medication they are taking; or a substance they are using (like alcohol).
- In these cases insomnia is a **symptom** not diagnosis

### 3) **Idiopathic Insomnia**

- very long-term chronic insomnia that begins in early childhood. It is also called “child onset insomnia.”

- This type of insomnia cannot be traced to any known direct cause.

## ***When assessing:***

- identifying stressors; “good” or “bad” divorce or separation, losing a job, preparing for an examination, marriage , vacation excitement
- review medications, illicit drug use
- physical discomfort: hot, cold, lighting, noise, unfamiliar surroundings patient safety.
- Smoking
- Caffeine - intake prior to going to bed
- Alcohol use

The Treatment of insomnia depends largely on the cause.

Basic goals:

- A) To reduce the time it takes to go to sleep to less than 30 minutes
- B) Reduce wake periods during the night.

# *Review Sleep Behaviours*

- Sleep as much as possible to feel rested, then get out of bed (do not over-sleep).
- Maintain a regular sleep schedule.
- Do not try to force yourself to sleep.
- light therapy – early morning
- Do not drink caffeinated beverages in the afternoon or evening.

- Do not drink alcohol prior to going to bed. It may help you fall asleep, but it prevents deeper stages of sleep and often causes you to awaken in the middle of the night.
- Do not smoke, especially in the evening.  
**Nicotine withdrawal is the main reason for insomnia after smoking cessation**
- Adjust the bedroom environment to facilitate sleep. ( quiet, dark and comfortable.)

- Do not go to bed hungry.
- try to resolve stress and anxiety before going to bed.
  - \* relaxation, meditation
- Exercise regularly, but not too close to bedtime  
Be consistent. Brisk 30-minute walk every day, can make a big difference.
- \* Raising your body temperature four-to-five hours before bedtime is beneficial for insomnia.
  - warm bath

# Primary Insomnia

## Treatments tried.

- Stimulus control
- Cognitive behavioural therapy
- Relaxation training and biofeedback
  - Sleep restriction



11/21/2012

**MYTH**

**“5”**

**We need less sleep as we  
age.**

# BUSTED!

It is a common misconception that sleep needs decline with age. In fact, research demonstrates that our sleep needs remain constant throughout adulthood.

More time is spent in lighter stages of sleep but the amount of REM sleep needs remains the same

REM 25% NONREM 75%

Reviewed by **Michael V. Vitiello, PhD** (December 2009).

Associate Director of the Northwest Geriatric Education Center and a Professor of Psychiatry and Behavioral Sciences, University of Washington School of Medicine. Dr. Vitiello's

**MYTH**

**“6”**

**You can make up for lost sleep during the week by sleeping more on the weekends.**

# ***BUSTED !***

*I suppose you can try.....*

- Although this sleeping pattern will help relieve part of a **EXCESSIVE** sleep debt, it will not completely make up for the lack of sleep.
- Sleeping later on the weekends can affect your sleep-wake cycle so that it is much harder to go to sleep at the right time on Sunday nights and get up early on Monday mornings.

- Hours of sleep you need per night - Hours of sleep you actually get = **Sleep debt**
- Researchers have reported that on average sleep debt can be paid back in increments of 1-2 hours
- If you are 10 hours in “excessive debt”, don’t expect to pay it all back at once

- For every hour you sleep, you can be awake for 2hrs  
Awake for 16 hours, to sleep for 8 clears debt.
- Complicated calculation,  Lots of sleep debt calculators on line
- In the end what research have said is for every hour of sleep lost we need 1.5 hours to repay the EXCESSIVE sleep debt.

<http://www.thewhitenoisealbum.com/sleepdebtcalculator.html>

A Harvard Medical physician Dr. Epstein offers the following advice:

- **For “Settle short-term debt.**

If you missed 10 hours of sleep over the course of a week, add three to four extra sleep hours on the weekend and an extra hour or two per night the following week until you have repaid the debt fully. “

\*\*Considering that fact that you have an excessive sleep debt because of the sleep lost during the week, unlikely that you will be able to repay the debt the next week.\*\*

# TRY:

- 1) **Stop** thinking of sleep as an indulgence or luxury.
- 2) Recognize that adequate sleep is just as important for health, as diet and exercise are.
- 3) Stick to a sleep schedule
- 4) Pay attention to what you eat and drink
- 5) Create a bedtime ritual
- 6) Get comfortable
- 7) Limit/ schedule daytime naps
- 8) Include physical activity in your daily routine
- 9) Manage stress
- 10) Sleep Vacations to catch up.

# MYTH

"7"

Turning up the radio, opening the window, or turning on the air conditioner are effective ways to stay awake when driving.

# BUSTED!

- These "aids" are short term at the best and totally ineffective
- This **myth is dangerous** to the person who is driving while feeling drowsy or sleepy, if your body needs sleep it will sleep
- Caffeinated beverages can help overcome drowsiness for a short period of time. However, it takes about 30 minutes before the effects are felt and these effects are generally very short term.

# SCARY STATS!

- Two out of every five drivers (41%) admit to having fallen asleep at the wheel at some point.
- According to a new AAA Foundation for Traffic Safety Study, one in ten drivers said they have fallen asleep at the wheel in the past year.

- One in six accidents were deadly crashes,
- one in eight of crashes resulting in a hospitalization,
- one in eight crashes involving drowsy drivers where severe enough that the vehicle had to be towed.
- More than half (55%) of drivers who reported falling asleep while driving in the past year said they had been driving for **less than one hour** before falling asleep.

- Reuters a researcher , first reported on a new study in the journal Archives of Internal Medicine on car accident factors in southwest France. The study showed there was no difference between driving sleepy or drunk  
**\*Both doubled the risk of causing a car accident.\***
- National Highway Traffic Safety Administration estimates that **100,000 crashes** reported to the police each year, are the direct result of fatigue and sleepiness?

# **“ NET’s ” Driver Fatigue Quiz**

**12 question quiz to find out**

<http://trafficsafety.org/safety/risk/driver-fatigue-quiz>

- 1) Coffee overcomes the effects of drowsiness while driving.
- 2) I can tell when I'm going to go to sleep.
- 3) Rolling down my window or singing along with the radio will keep me awake.
- 4) I'm a safe driver so it doesn't matter if I'm sleepy.

- 5) You can stockpile sleep on the weekends.
- 6) Most adults need at least seven hours of sleep each night.
- 7) Being sleepy makes you misperceive things.
- 8) Young people need less sleep.
- 9) Wandering, and or disconnected thoughts are a warning sign of driver fatigue.

- 10) Little green men in the middle of the road may mean the driver is too tired to drive.
  
- 11) On a long trip, the driver should never take a break but try to arrive at the destination as quickly as possible.
  
- 12) A micro-sleep lasts four or five seconds.

I took the test... got 11/12 the question on “little green men threw me!”

# Canada's Safety Council

## Tips to Avoid Drowsy Driving

- Drive only when rested.

*Don't take the wheel* if you feel fatigued, no matter when or where you are driving.

- Sleep or exercise first, avoid or delay the trip, or let a rested person drive.

- **Keep your mind alert.**
  - Try to have company on long trips. Change position frequently, keeping your head up and shoulders back. Actively watch road signs and traffic.
  
- **Find a safe place to stop.**
  - On a long trip, every couple of hours or if you start to feel sleepy, pull off the road for a break, exercise and fresh air.
    - When possible, spend the night at a hotel or stop in a safe place to take a nap.
    - Don't rely on coffee!

- **Be careful about what you eat and drink.**
  - Coffee, sugar or other stimulants may wake you up physically but they do **not ensure mental alertness. ....**
  
- **Drive defensively.**
  - Be prepared to prevent collisions
  - in spite of all these actions , others-including drivers around you may be drowsy.

**\*\*The best prevention for drowsy driving is a good night's sleep the night before your trip.\*\***

**Don't take the wheel**

**If you feel fatigued, no matter when or where you are driving.**

# MYTH

“8”

**Sleep deprivation and lack  
of sleep is not a problem...  
It's a lifestyle.**

**I can deal with it.**

# OH SO BUSTED!!!

Research shows that getting enough quality sleep at the right times is vital for mental health, physical health, quality of life, and safety.

**Helen Driver**, a professor of medicine and psychology at Queen's University in Kingston, Ont., She is also the president of the Canadian Sleep Society, said;

“When sleep problems become chronic, they affect hormones that can trigger obesity and Type 2 diabetes. Levels of ghrelin, a hormone that stimulates hunger, increase and levels of leptin, a hormone that makes us feel satiated, go down”

Dr. Rachel Morehouse, medical director of the Atlantic Health Sciences Sleep Centre in Saint John.

“The price of sleep deprivation can be high since it affects memory and the ability to learn, focus and be alert”

Sleep deprivation as played a role in human errors linked to tragic accidents. Nuclear reactor meltdowns, grounding of large ships, and aviation accidents to name a few

1. The 1989 Exxon Valdez oil spill off Alaska,
2. Challenger space shuttle disaster
3. Chernobyl nuclear accident

- While people can quickly recover from one or two nights of insomnia or lack of sleep, chronic sleep deprivation can seriously affect daytime alertness.
- Sleep-deprived people who are tested by using a driving simulator or by performing a hand-eye coordination task perform as badly as or worse than those who are intoxicated.

- The signs and symptoms may differ between children and adults.

-Children who are sleep deprived might be overly active and have problems paying attention, have problems “focusing” in school.

- while we may get “used to” a sleep-depriving schedule, our judgment, reaction time, and other functions are still impaired.
- Since drowsiness is the brain's last step before falling asleep, driving while drowsy often leads to disaster.

# The effects of sleep deprivation and chronic lack of sleep

## **Inability to Handle Stress**

Feeling frustrated, cranky, or worried in social situations.  
Having to stop at the grocery store on the way home from work may seem like an impossible task.

## **Poor Memory**

Deep sleep plays an important role with memory.

## **Inability to Concentrate**

Studies report that not only are sleep deprived people likely to perform poorly on tests requiring concentration, but also, they're more likely to overestimate their performance and ...

They underestimate the effects of sleep deprivation on their ability to concentrate

## Increased Appetite

Your brain metabolizes sugars at a slower rate when you're sleep deprived. As a result, people report craving sweets and salty foods, in addition to starches.

Studies have also shown a clear connection between sleep deprivation and obesity

Sleep-deprived people have double the risk of obesity when compared with those who have no trouble sleeping [source: University of Warwick].

## **Vision Problems**

When neurons are deprived of regenerative sleep, they struggle to perform functions such as providing you with a perception of the world around you

## **Poor Decision-making**

Studies have shown that sleep-deprived people are more likely to make risky decisions [source: Venkatraman]. Without sleep, you'll act aggressively in hopes of achieving short-term gains.

## **Diminished Motor Skills-**

Researchers discovered that after you've gone a night without sleep, you're essentially operating on the same level as someone who's legally intoxicated [source: The Franklin Institute].

## **Relationship Troubles:**

Moodiness, agitation and poor memory. You might find it hard to judge other people's emotions and reactions.

## Medical Problems

Diabetics who experience sleep deprivation become less sensitive to insulin as the body's ability to metabolize sugar decreases [source: The Franklin Institute].

Linked to many chronic health problems, including heart disease, kidney disease, high blood pressure, diabetes, stroke, obesity, and depression.

Reduced immunity; The white blood cell count decreases, and the remaining white blood cells become lethargic. Frequent colds and infections.

## Mood Swings

One study showed that children who slept less than 10 hours in a day were 25 percent more likely to misbehave [source: The Franklin Institute].

Situations that normally would be manageable may suddenly seem much more irritating.

**Do you really want to “handle” this!!!**

- Some studies on rats reported that within 11-32 days of sleep deprivation, the rats would die or were sacrificed when death seemed imminent

**On a good note..... ?!**

- Your body will forcibly shut itself down to catch up on sleep long before you could possibly die from sleep deprivation.

**SO Myth VERY Busted.....**

[source: National Sleep Foundation].

Researchers from the Department of Psychiatry, University of Chicago completed studies using rats. [source Everson CA, Bergmann BM, Rechtschaffen ]

# *Review your Sleep!*

## *IF you....*

- Need an alarm clock in order to wake up on time
- Rely on the snooze button
- Have a hard time getting out of bed in the morning
- Feel sluggish in the afternoon
- Get sleepy in meetings, lectures, or warm rooms

- Fall asleep while watching TV or relaxing in the evening
- Feel the need to sleep in on weekends
- Fall asleep within five minutes of going to bed
- Fall asleep again before you can get out of bed in the morning.
- Get drowsy after heavy meals or when driving
- Need to nap to get through the day

You need to reevaluate your sleep both

*QUALITY AND QUANTITY*

*ALWAYS REMEMBER*

*Sleep is NOT a luxury its a NESSESITY!!!*

*Sleep needs Protection!*

# ***BUSTED!!!***



