Rise & SHINE!
Healthy Sleep Habits for Better Rest

By: Jessica Galopoulos

Sleep Hygiene Self-Quiz
Self Quiz

What is the most common sleeping complaint?
(a) Insomnia
(b) Sleep Apnea
(c) Restless Leg Syndrome

Self Quiz

How much less sleep do shift workers get versus non-shift workers?
(a) 1-4 hours
(b) 1-2 hours
(c) 2-5 hours
Self Quiz

True or False? Alcohol helps you sleep.
(a) True
(b) False

Quiz Answers

What is the most common sleeping complaint?
(a) Insomnia

How much less sleep do shift workers get versus non-shift workers?
(a) 1-4 hours

Alcohol helps you sleep?
(b) False
Sleep Hygiene

What is sleep hygiene?
• Sleep hygiene is a variety of different practices that are necessary to have normal, quality nighttime sleep and full daytime alertness.

Why is it important to practice good sleep hygiene?
• Just like breathing – sleep is an essential and basic human need!
• Poor sleep habits are among the most common problems encountered in our society and the effects of sleep deprivation can be quite detrimental.

Signs & Symptoms of Poor Sleep Hygiene

• Signs and symptoms of poor sleep hygiene:
  o Feeling irritable or sleepy during the day.
  o Experiencing difficulties staying awake when sitting still, watching television or reading.
  o Falling asleep or feeling extremely tired while driving.
  o Difficulty concentrating.
  o Often informed by others that you look tired.
  o Difficulties controlling emotions.
  o Needing to nap almost every day.
  o Needing caffeinated beverages everyday to keep yourself alert.
Types of Sleeping Problems

Insomnia:
• The inability to get the amount of sleep you need to wake up feeling rested and refreshed.
• Most common sleep complaint.

Signs and Symptoms
• Problems falling asleep or staying asleep
• Feeling not well rested or tired after waking up

Risk Factors
• Stress, depression, and anxiety.
• Distant travelling with time zone change (i.e. jet lag).
• Inactive lifestyle.

Types of Sleeping Problems

Shift Work Sleeping Disorder (SWSD):
• Disruption in sleep-wake cycle as result of frequent shift work and poor sleep hygiene.

Signs and Symptoms
• Insomnia, excessive sleepiness, and lethargy
• Difficulty concentrating
• Headaches

Risk Factors
• Working frequent irregular/rotating shifts and not getting adequate rest on days off.

Types of Sleeping Problems

Sleep Apnea
- Condition where individual may have one or more pauses in breathing or shallow breaths while sleeping affecting quality of sleep.

Signs and symptoms
- Gasping or inability to move air/oxygen in and out of lungs
- Loud and chronic snoring**

Risk Factors
- Being overweight.
- Family history of Sleep Apnea.
- Having small airways (i.e., in their noses, throats, or mouths).
- Also linked with smoking, metabolic syndrome, diabetes and increased risk for heart disease and stroke.

[National Institute of Health, 2012]

Sleep & Circadian Rhythm
- The body has its own natural daily rhythm, called the "circadian rhythm".

- The circadian rhythm is influenced by factors such as light, dark, eating, social contacts and noise.

- "Melatonin" is produced in the body and peaks during darkness (i.e. to promote sleep) and lowers during the day. Melatonin has been shown to shift biological rhythms.

[OSACH, n.d.]
Sleep & Circadian Rhythm

- The body’s physical processes follows a 24-hour clock and regulates most of the body functions (i.e. heart rate, blood pressure and body temperature).

- When your day does not match your body’s day, problems can occur.

(OSACH, n.d).

Sleep & Health

- Research also links sleep deprivation to physiological changes and health problems in the body, including:
  - Increased “cortisol” (i.e., stress hormone)
  - Increased “ghrelin” levels (i.e. stimulates hunger) & decreased “leptin” levels (i.e., regulates appetite)
  - Impaired “glucose metabolism” (i.e. increase risk for type II diabetes).**
  - Impairs “immune function” (more likely to be prone to sickness).

(AlDabal & BaHammam, 2011; Donga et al, 2010; Lange, Dimitrov, & Born, 2010)
Sleep & Health

- Disruptions of circadian rhythm which commonly occurs with sleep deprivation is linked to disruptions in reproductive function:
  - Include altered hormonal secretion patterns
  - Reduced “conception” rates,
  - Increased “miscarriage” rates and
  - An increased risk of “breast cancer”

Alertness & Safety

- Cognitive performance is affected by Individuals deprived of sleep and they are more likely to:
  - Have difficulties with “executive functioning” (e.g., planning, problem solving, task switching, verbal reasoning).
  - Sustain “work-related injuries and errors” (i.e., 2-fold increase among sleep deprived shift workers and highest among females).
  - Be involved in “motor vehicle accidents” related to fatigue or drowsy driving**

(Goel et al, 2009; Kling, McLeod, & Koehoorn 2010)
Occupational Disasters & Sleep Deprivation

• Examples of occupational disaster related to sleep deprivation:
  o Exxon Valdez (1989)
  o Chernobyl (1986)
  o Challenger space shuttle disaster (1986)

(Tucker et al, 2010)

Additional Effects Related to Sleep Deprivation

• Excessive sleepiness
• Increased daytime fatigue
• Decreased alertness
• Insomnia
• Depression
• Impaired work performance
• Disrupted social schedules
• Stress & stressed relationships
• Memory and cognitive impairment
• Poor quality of life
• Occupational injury
• Automobile injury
• High blood pressure
• Heart attack
• Heart failure
• Stroke
• Obesity

Recommended Hours of Sleep

<table>
<thead>
<tr>
<th>Age</th>
<th>Sleep Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborns (0-2 months)</td>
<td>12-18 hours</td>
</tr>
<tr>
<td>Infants (3 to 11 months)</td>
<td>14 to 15 hours</td>
</tr>
<tr>
<td>Toddlers (1-3 years)</td>
<td>12 to 14 hours</td>
</tr>
<tr>
<td>Preschoolers (3-5 years)</td>
<td>11 to 13 hours</td>
</tr>
<tr>
<td>School-age children (5-10 years)</td>
<td>10 to 11 hours</td>
</tr>
<tr>
<td>Teens (10-17)</td>
<td>8.5-9.25 hours</td>
</tr>
<tr>
<td>Adults</td>
<td>7-9 hours</td>
</tr>
</tbody>
</table>

Source: National Sleep Foundation

(National Sleep Foundation, 2013)

There is Good News!

- Many of the conditions caused by sleep deprivation can be managed via lifestyle assessment, education, and lifestyle change!
Sleep Strategies

• Keep a regular schedule:
  o Try to go to bed and wake up at the same time every day and night.

• Keep alcohol and caffeine moderate:
  o More than 1-2 drinks in the evening can interfere with deep sleep, as can too much caffeine.
  o Limit alcohol to the suggested amounts, and reduce caffeine after 2 pm

• Write it down:
  o Take a few minutes to write out a list of whatever’s bugging you
  o Whatever is in your brain, get it out and on to paper.

• Turn off Electronics:
  o Unplug from all screens — TVs, computers, phones, tables — at least 30 minutes before bed.

• Stretch/Read/De-Stress before bed:
  o What de-stresses you? Do that. (e.g. stretching/yoga; reading, meditation, deep breathing, etc.)

• Go to bed before midnight:
  o According to some sleep experts, because of the way our natural circadian rhythms work, every hour of sleep before midnight is worth two hours after.
Sleep Strategies

• Sleep at least 7 hours:
  o Most people need 7-9 hours of sleep per night. 7 should be your baseline.

• Exercise Regularly:
  o Exercising regularly helps normalize circadian rhythms, tone down the sympathetic nervous system, and regulate endocrine function.

• Take a bath or shower:
  o Warm water before bed can help us relax and de-stress.
  o Cold water stimulates a strong parasympathetic nervous system response.

• Keep a Sleep Diary:
  o A sleep diary is a useful tool for identifying sleeping problems related to nighttime and daytime habits

Optimize Your Sleep Environment

• Limit Light Exposure:
  o Making your room as dark as possible will maximize your melatonin production.
  o If sleeping during day, best to black out sunlight via mask or blackout curtain to help sleep easier.

• Other Tips:
  o Dim lights at night. Install low-wattage bulbs in your bedroom, and keep things as dim as possible in the hour before your planned bedtime.
  o Cover your windows well. Try blackout curtains.
  o Use a motion-sensitive or dim night light if you need something to illuminate your midnight path to the bathroom.
  o Put your iPhone in another room or flip it face down.
  o Cover or dim the alarm clock, or look for one that illuminates only when touched.
Optimize Your Sleep Environment

• Create a relaxing sleep area: quiet and clutter-free.
  o Cluttered environment is the opposite of calming environment.

• Set your room to an appropriate temperature.
  o Find what works best for you and do your best to regulate your bedroom
to that temperature each night.

• Use white noise if necessary.
  o Nature sounds, fan, radio static, etc.

How to Wake Up

• Take advantage of natural rhythms.
  o If we wake up at just the right moment in our lighter sleep stages, we'll feel
reasonably good and snap into alertness quickly.
  o But if we're forced to wake up while in a deep sleep phase, we'll feel
groggy, disoriented, and sleepy.

• Gadgets and apps that may help:
  o iPhone SleepCycle app
  o Android SleepBot app
  o Zeo
  o Fitbit

• Wake up to light.
  o Use a dawn-simulating alarm clock (e.g., Biobrite)
How to Wake Up

• Wake up to soft, slowly building noise.
  o Progressive Alarm Clock app

• Get moving right away.
  o Avoid hitting the snooze button; sit up and put your feet on the floor.

• Expose yourself to more light.
  o Stops melatonin production
  o Get as much light as you can throughout the day.
  o Other option: Litebook Elite

  *Avoid the snooze button, and get your body up and moving.*

Interventions For Staying Awake

• Work with Others—working with others helps keep you alert.

• Stay Active at Work—maintain activeness during breaks (e.g., take a walk, exercise, etc.).

• Scheduling Naps—taking a 15-30min nap helps you to feel refreshed and boosts energy.

• Eat Nutritious Meals—eating small, nutritious meals throughout the day helps maintain energy (e.g. complex carbs, protein, and avoiding heavy fatty meal).

(National Sleep Foundation, 2013; Canada Post, 2007)
Sleep Management Tips for Shift Workers

- Avoid routinely working overtime or extended hours/shifts
- Try to keep as close to your schedule as possible, even on your days off
- Avoid routine long commutes that reduces the time you have to sleep
- Carpool with others instead of driving alone
- Get enough rest during your days off work

Additional Resources

Canadian Sleep Society
- http://www.canadiansleepsociety.ca/publisher/articleview/frmArticleID/341/

National Sleep Foundation
- http://www.sleepfoundation.org

Ontario Safety Association for Community and Healthcare
Sleep Diary Contest!

Track Your Sleep Patterns In A 2 Week Diary Challenge to Improve Your Sleep Fitness!

Tips for Sleep Challenge

• Set a bedtime that works with your schedule.
• Do not consume caffeine/alcohol 4-6 hours before bed.
• Turn off all electronics devices before bed.
• Make sure your bedroom is dark, quiet and slightly cool.
• Target waking up at the same time every day.

Submit Your Diary For A Chance To Win A Prize!

References


References


