

Better than Sheep to Improve Your Sleep

You can Count on it!

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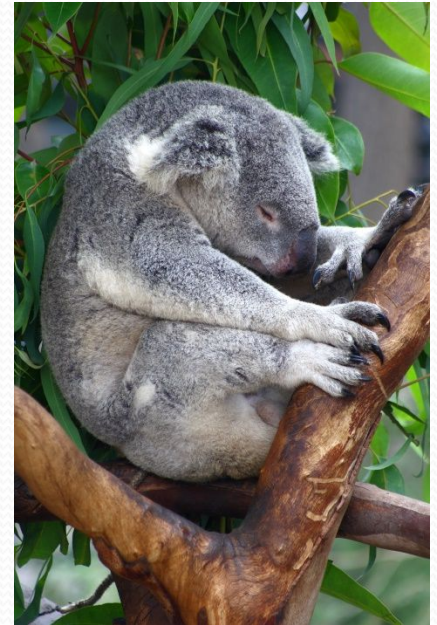


A GOOD LAUGH
AND A
long sleep
ARE THE
TWO BEST CURES
FOR *anything*

IRISH PROVERB

• What we will learn today:

- 1. Sleep and the stages.
- 2. Importance of sleep.
- 3. Insomnia, symptoms and effects.
- 4. What interferes with sleep?
- 5. Now...improve sleep!



• Sleep and the stages:

- **Sleep** - the natural periodic suspension of consciousness during which the powers of the body are restored.

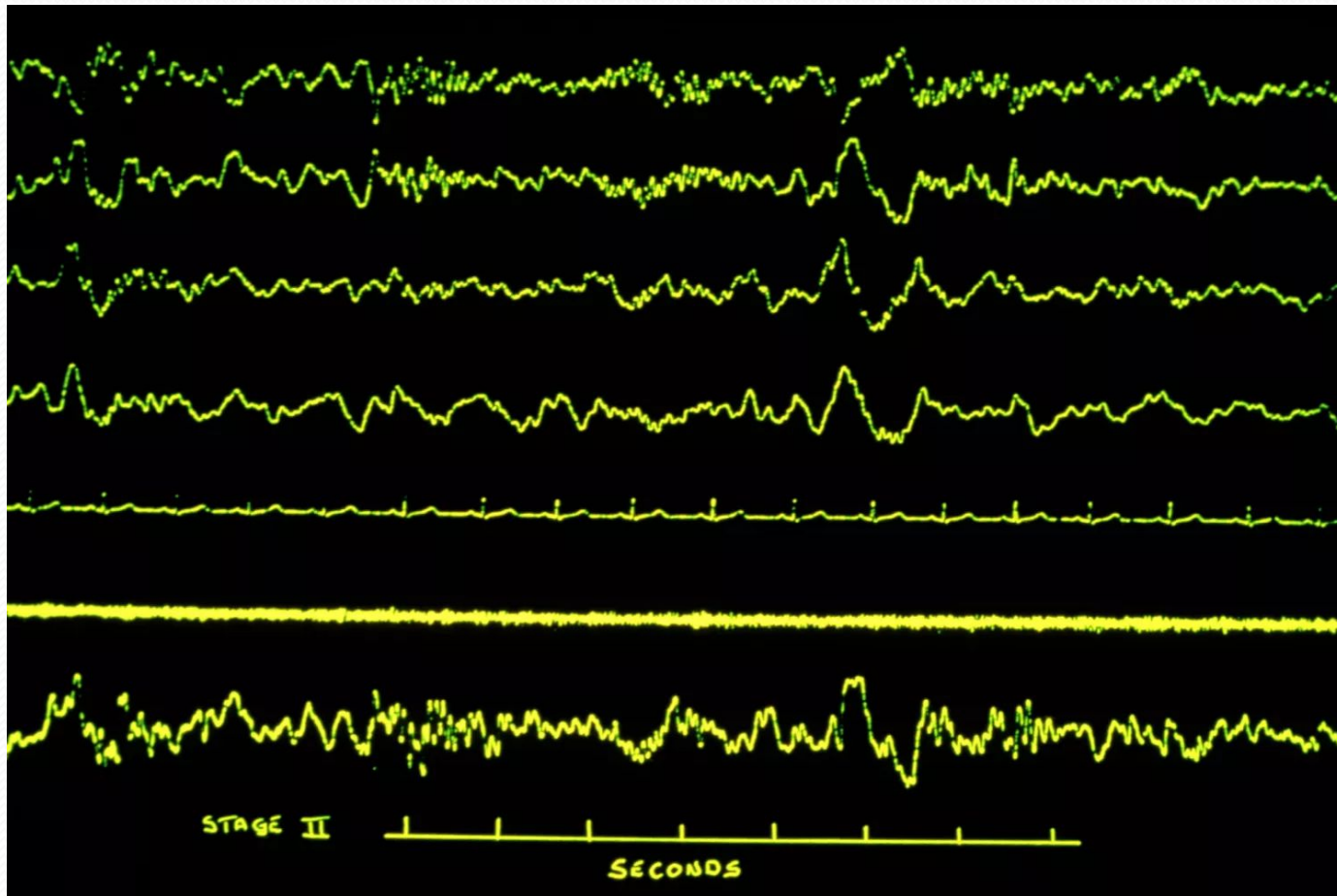
<https://www.merriam-webster.com/dictionary/sleep>

4 Stages of sleep: cycle

- **Non-REM N₁ - 1st stage, lightest, begin to relax body, often some muscle twitches, EEG pattern alpha waves like awake. Up to 10 minutes.**
- **Non-REM N₂- 2nd stage, deeper relaxation and eye movements stop. Body temperature drops 1 degree C. EEG K waves. 10-25 minutes.**
- **Non-REM N₃ - 3rd stage, deepest stage of sleep, body functions at slowest point, EEG delta. 20-40 minutes**
- **REM [rapid eye movement] 4th stage, brain may be more active than when awake, includes vivid dreaming. Longest period 70-120 minutes, later REM often longer. Babies have little REM, older adults REM increases.**

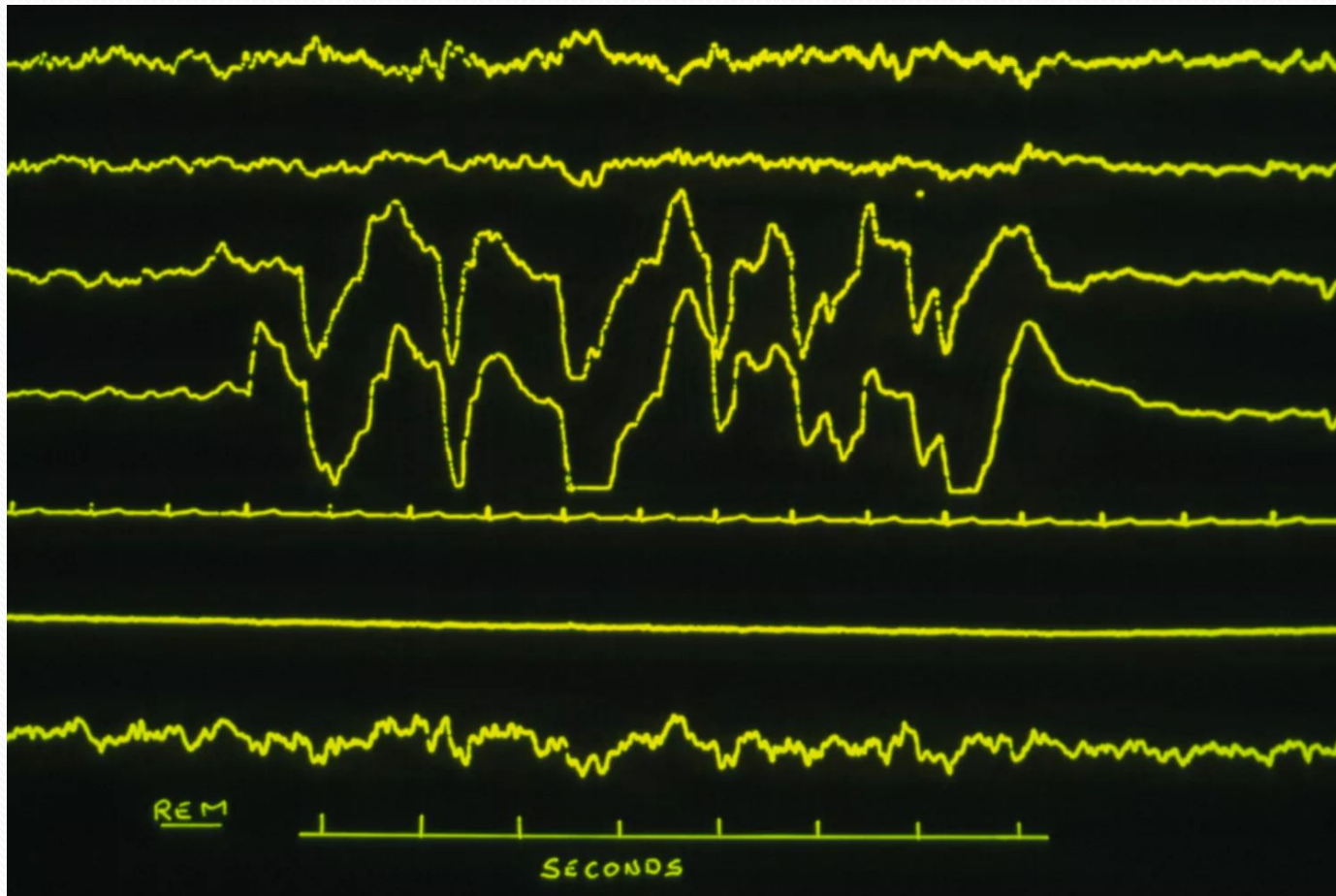


Non-REM sleep



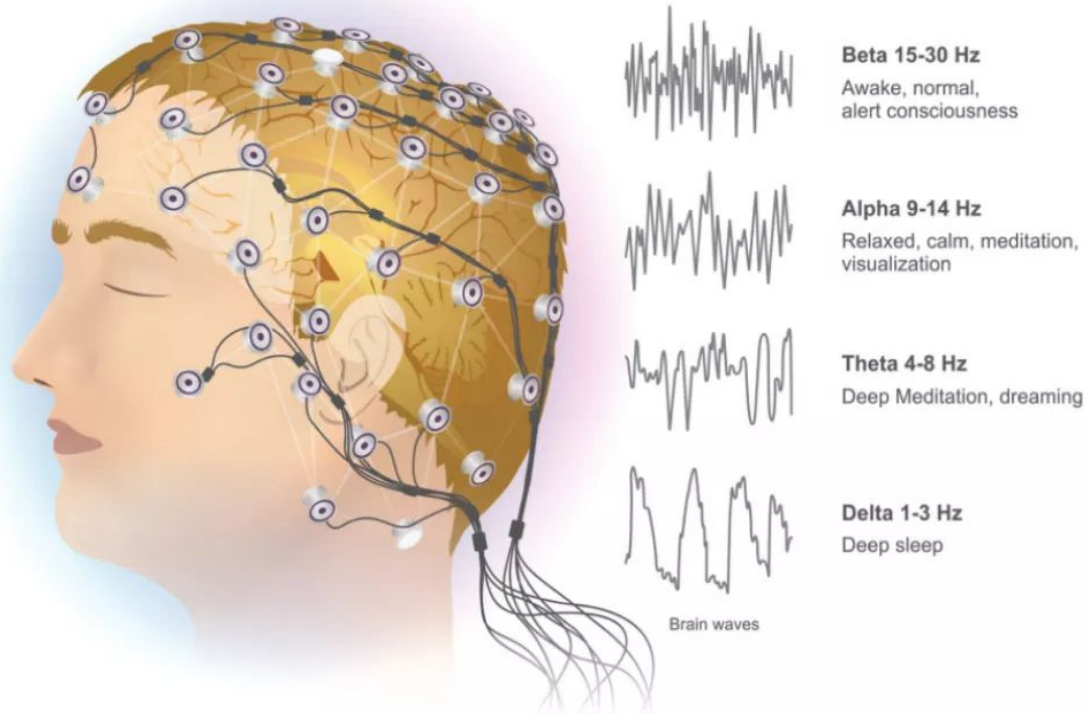
Stage 2 Non-REM Sleep. Numbering the traces from top to bottom, 1 & 2 are electroencephalograms (EEG) of brain activity; 3 is an electrooculogram (EOG) of movement in the right eye; 4 an EOG of the left eye; 5 is an electrocardiogram (ECG) trace of heart activity. 6 & 7 are electromyograms (EMG) of activity in the laryngeal (6) and neck (7) muscles. James Holmes / Science Photo Library / Getty Images Plus

REM sleep



REM Sleep. Numbering the traces from top to bottom, 1 & 2 are electroencephalograms (EEG) of brain activity; 3 is an electrooculogram (EOG) of movement in the right eye; 4 an EOG of the left eye; 5 is an electrocardiogram (ECG) trace of heart activity. 6 & 7 are electromyograms (EMG) of activity in the laryngeal (6) and neck (7) muscles. James Holmes / Science Photo Library / Getty Images Plus

Electroencephalogram (EEG)



- **Sensory response to visual and light stimulation**

Use of symbols, colors and light in test.

- **Sensory response to sound waves**

Use of music and frequency sound waves test.

An electroencephalogram (EEG) uses electrodes to read small electromagnetic waves from the human brain. Graphic_BKK1979 / iStock / Getty Images Plus

• Why is sleep important?

- Increased energy
- Increased alertness and performance
- MEMORY consolidation in REM

- Learn faster
- Healing of the body
- Better mood and mental health



*I want to be like a
caterpillar.*

Eat a lot.

Sleep for a while.

Wake up beautiful.

that's life!

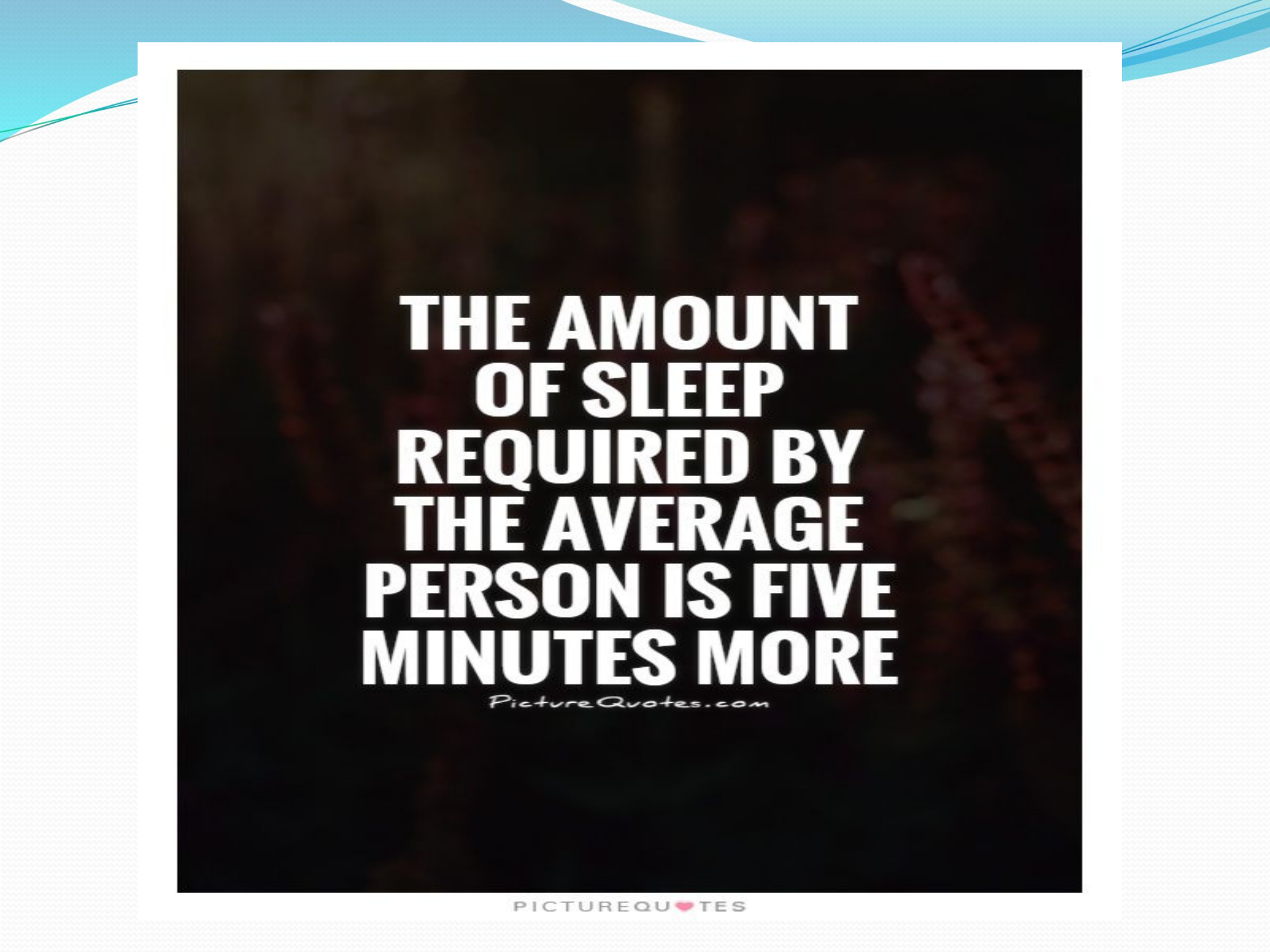


Sleep in Canada

- *Recommended that adults age 18-64 have 7-9 hours sleep per night*
- *1 in 4 adults aged 18-34 and 65-79 experience difficulties in sleep*
- *1 in 3 adults aged 35-64 are not getting enough sleep*
- *1 in 2 adults have trouble going to sleep or staying asleep.*
- *1 in 5 adults do not find their sleep refreshing.*
- *1 in 3 adults have difficulty staying awake during waking hours.*

Canadian Health Measures Survey (CHMS) 2014-2015.





**THE AMOUNT
OF SLEEP
REQUIRED BY
THE AVERAGE
PERSON IS FIVE
MINUTES MORE**

PictureQuotes.com

• Insomnia

Insomnia is a sleep disorder that is characterized by difficulty falling and/or staying asleep. People show one or more of the following symptoms:

- Difficulty falling asleep
- Waking up often during the night and having trouble going back to sleep
- Waking up too early in the morning
- Feeling tired upon waking



Types of Insomnia

There are two types of insomnia: primary and secondary.

- **Primary insomnia:** Primary insomnia means that a person is having sleep problems that are not *directly* associated with any other health condition or problem.
- **Secondary insomnia:** Secondary insomnia means that a person is having sleep problems because of something else, such as a health condition (like asthma, depression, arthritis, cancer, or heartburn); pain; medication they are taking; or a substance they are using (like alcohol).
- **NOTE:** As we do not always know it is secondary insomnia and may be a result of various physical or medical conditions it is *important to discuss the issue with your doctor*.



• Effects of inadequate sleep

- Miss your bus/LRT stop
- Short term memory loss
- Weight gain
- Difficulty in concentration
- Injury or death by driving or working machinery
- And... your brain scavenger cells activated- more wear and less repair



• Sleep Deprivation



I love sleep.


My life has
the tendency to
fall apart when
I'm awake.
You know?

- Ernest Hemingway

• What interferes with sleep?

- ❖ Worry – activate Fight/Flight
- ❖ Stimulants-Caffeine, nicotine, adrenalin
- ❖ Bed used not to sleep [study, TV, planning...]
- ❖ Alcohol [reduces REM, jumble N₁,N₃.> sleep apnea]
- ❖ Napping
- ❖ No bedtime routine
- ❖ Clock watching
- ❖ Light






Me : let me sleep

Brain : lol no, let's stay
awake and remember
every stupid decision
you made in your life.

Me : okay



“You can't go back and
change the beginning,
but you can start
where you are and
change the ending.”

— C.S. Lewis

• Ways to improve sleep!



- The two main causes of sleep problems are your Mind and your Body!

Your MIND

- How to improve sleep, reduce worry!

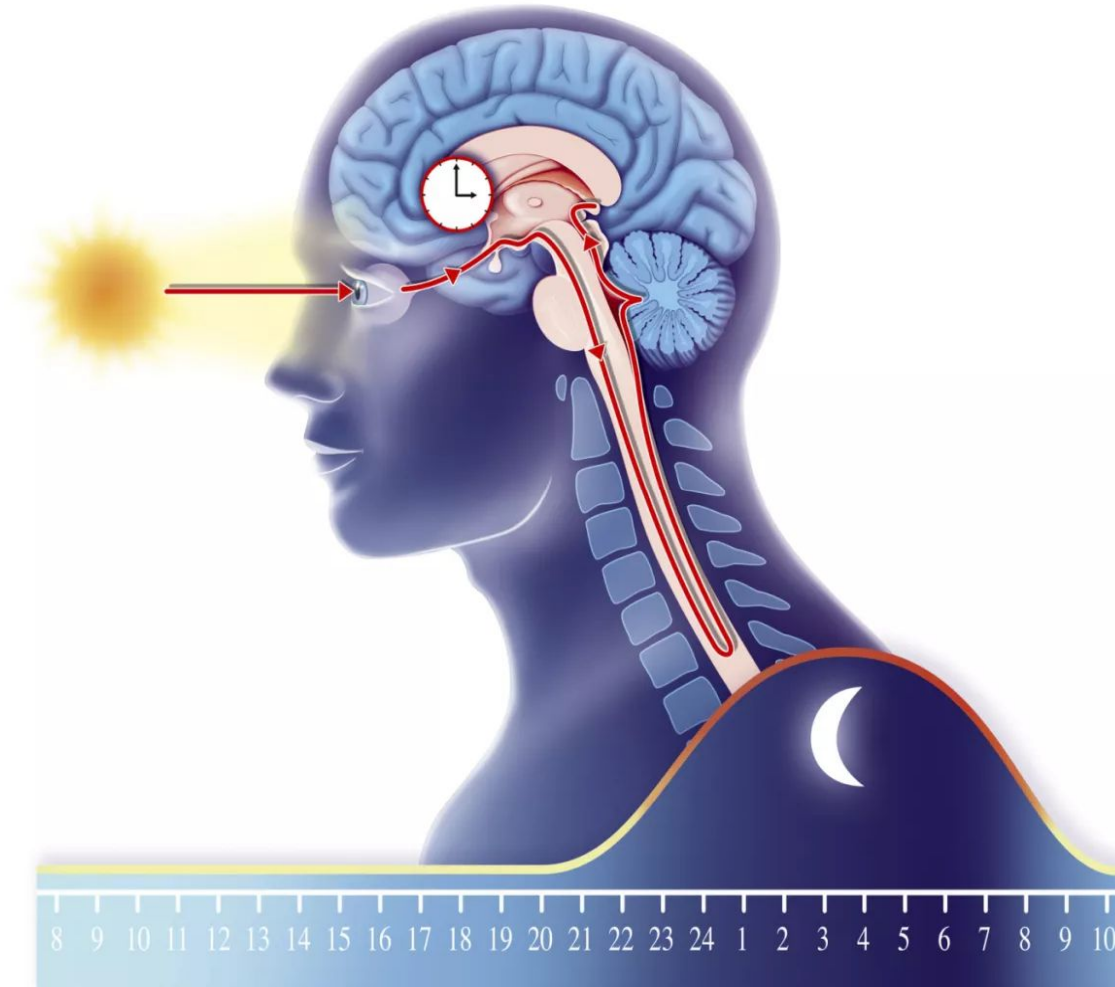
Worry
doesn't prevent
 disaster 
it prevents
Joy!

Using the relax mind technique.

- 1) What is the concern
- 2) This is important
- 3) Plan to do Something and When



Circadian clock



- Illustration of the body clock. Depending on sunlight perceived by the eye, signals are sent to the suprachiasmatic nucleus, where the circadian clock is housed, in the hypothalamus, which controls various biorhythms. ACOPIN / BSIP / Getty Images Plus



TIPS FOR BETTER SLEEP



AVOID CONSUMING ALCOHOL
AND NICOTINE BEFORE
BEDTIME



DO NOT WATCH TV OR WORK
ON YOUR COMPUTER AND
DO NOT USE GADGETS
BEFORE BEDTIME



DRINKING A WARM CUP OF
TEA WITH CHAMOMILE OR
GLASS OF MILK



AVOID LIGHTS WHEN
TRYING TO SLEEP



AVOID OVEREATING AT DINNER
AND AVOID CONSUMING
CAFFEINE IN THE LATE
AFTERNOON



READ A BOOK OR LISTEN
TO A RELAXING MUSIC



16 - 24°C
COMFORTABLE TEMPERATURE
IN THE BEDROOM



WAKE UP AND GO TO
BED AT THE SAME TIME.
SLEEP 7-8 HOURS



STOP EXERCISING FOUR
HOURS BEFORE BEDTIME



TAKE A WARM BATH OR
SHOWER BEFORE BEDTIME



• How to improve sleep!

BODY

- Reduce/limit use of stimulants
e.g. no caffeine after 2 PM

Count reps instead of sheep



- Exercise in AM [good but not help sleep]
or after work, or in the early evening
- 2 hours before sleep

EXERCISE RIGHT, SLEEP TIGHT

Having trouble with sleep? Try counting reps instead of counting sheep.

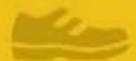
MODERATE RISK OF SLEEP APNEA IN:

NON-EXERCISERS



44%

LIGHT EXERCISERS



26%

MODERATE EXERCISERS



22%

VIGOROUS EXERCISERS



19%

Average nightly sleep for 1,000 adults polled: 6 hours and 51 minutes.

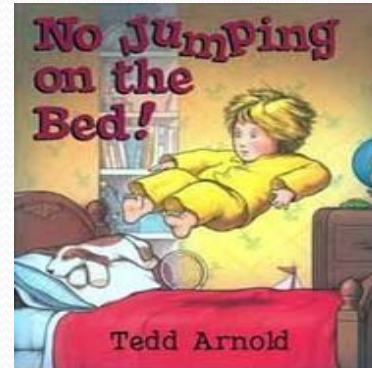
Tips to Help You Sleep:

- Even one 10-minute walk a day can improve your sleep
- Make sure your bedroom is quiet, dark, and cool
- Avoid spending time awake in bed
- Expose yourself to sunlight in the morning
- Ignore stressors before bed: Save your worries for the daytime
- Try taking a warm bath or listening to calming music before bed

Source: 2013 Sleep in America National Sleep Foundation Poll

• How to improve sleep!

- Reduce TV/phone tech 2 hours before bed [blue light messes with melatonin, body sleep hormone].
- Switch phone to airplane or do not disturb
- Natural light early in day
- Bed for sleep
- Good sleep environment. Tell others your schedule. Use ear plugs, eye mask. Dark/quiet/cool! That is 15.6-19.4C, best at 18.3C [65F]
- Humidifier in Calgary a good idea.
- Bedtime and awakening routines can change 30 minutes / day without problems
- no great change for weekend





• More ideas to improve sleep!

- If needed, nap but for 20 minutes only, max 45 minutes
- Eat a light snack of cheese & crackers, warm milk, turkey, or a banana
- [not food that is sugary, spicy]



- A warm bath, maybe with a relaxing scent [lavender]
- chamomile tea,



- Get out of bed if not asleep in 20-30 minutes and do something boring

Cognitive Shuffling

Lull the racing mind

- 1) Imagine a word without repeating letters e.g. Lunar
- 2) Think of as many words as possible beginning with the letter L
- 3) Once you have listed all you can move on to letter U
- 4) Continue until you fall asleep



**Sleep is the
best meditation.**

|
Dalai Lama

GH

• Mindfulness

- - is the moment to moment nonjudgmental awareness of mind [ones thoughts and emotions] and body
- Living in the moment
- Improving awareness
- -meditation [as little as 3 minutes]
- -body scan [10 minutes to 1 hour]
- -walking or eating mindfulness
- Jon Kabat-Zinn on YouTube or his book Full Catastrophe Living



• Snoring!!!

- Estimated to affect 57% of men, 40% of women and up to 27% of children [and my dog!]

Risk factors that contribute to a higher risk of snoring include:

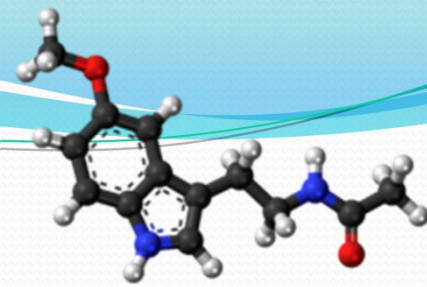
- Obesity
- Alcohol consumption
- Use of sedative medications
- Chronic nasal congestion
- Large tonsils, tongue, or soft palate
- Deviated septum or nasal polyps
- Jaw that is small or set-back
- Pregnancy





• Prevent snoring ideas

- Avoid alcohol
- Do not take medications that relax your muscles at night
- Lose weight
- Nasal obstruction issues- saline rinse, reduce allergy effect, humidifier
- Stop smoking [nicotine, irritation]
- Sleep on side, elevate head
- See your doctor



● Melatonin

- -"sleep hormone", production increases with evening darkness, light stops production
- -helps regulate circadian rhythm
- -low doses in evening helps with Delayed Sleep-Wake Phase Disorder (DSWPD) and jet lag
- Shift workers, data inconclusive as with insomnia
- -few side effects -daytime drowsiness, headaches, and dizziness
- -a supplement so less regulated [dose + additives]
- Children-to establish sleep, can help with sleep and epilepsy, Autism . Consult with your doctor

• Other Avenues

- **CBT**-cognitive behavioural therapy used to deal with anxieties and other mental health issues



- **Medication**- often not recommended long term, used with CBT



• Apps



- *Sleep Cycle - Smart Alarm Clock*
- *Relax Melodies - Sleep Sounds*
- *Pzizz - Sleep, Nap, Focus –music, voice over, sounds*
- *White Noise Lite*
- *Relax & Sleep Well - Hypnosis and Meditation*
- *Headspace-meditation sleepcasts*
Noisli- different sounds, white, thunder, coffee shop
- *Stop, Breathe & Think 4+*
- *Meditation for Calm & Sleep*
- *Calm –sleep stories*
- *mySleepbutton*
- *HealthyMinds problem solving*



LINKS & HELP

- Anxiety Canada.com **Getting a Good Night's Sleep**
<https://www.anxietycanada.com/adults/getting-good-nights-sleep>

- **Sleep Centre**

Location: [Foothills Medical Centre](#)

This service provides a single point of referral, triage, education, diagnosis and treatment for adults with sleep disorders. Referral from family physician.

- **Sleep Foundation** <https://www.sleepfoundation.org/>
- **Centre for Clinical Interventions** <https://www.cci.health.wa.gov.au/>
- <https://css-scs.ca/links/>



Thank you for attending and the FABVC for setting it up.



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