

The Road to a Better Sleep

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Your Presenters

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Disclosures

- Erin Desmarais- None
- Cynthia Leung -None

Presentation Outline



Sleep and Insomnia



Sleep Tips That You Can Use Right Now



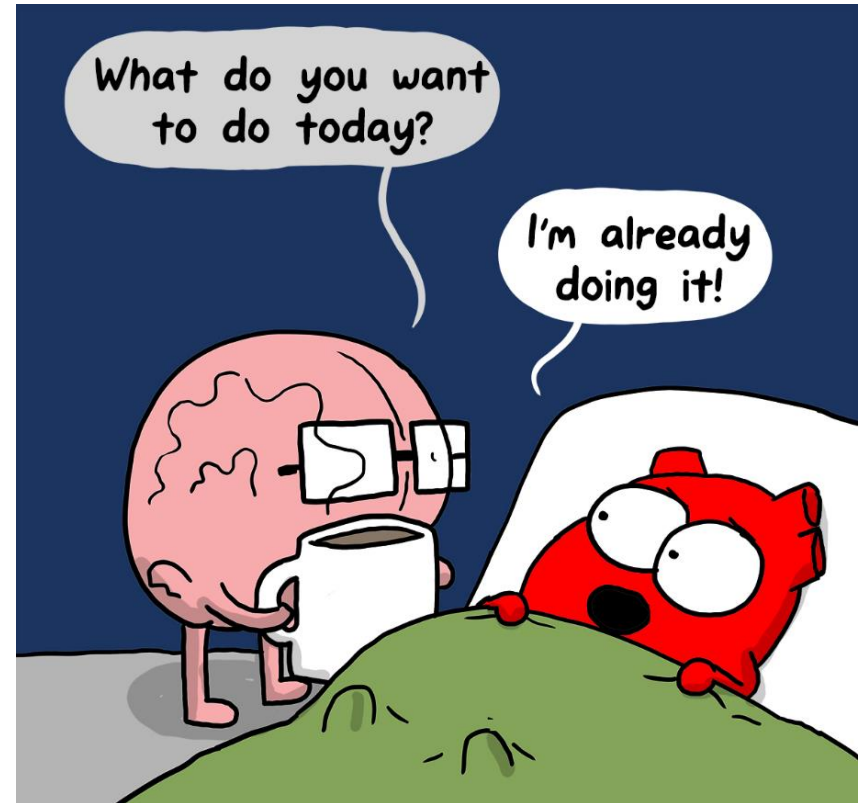
Treatment Options

Sleep and Older Adults

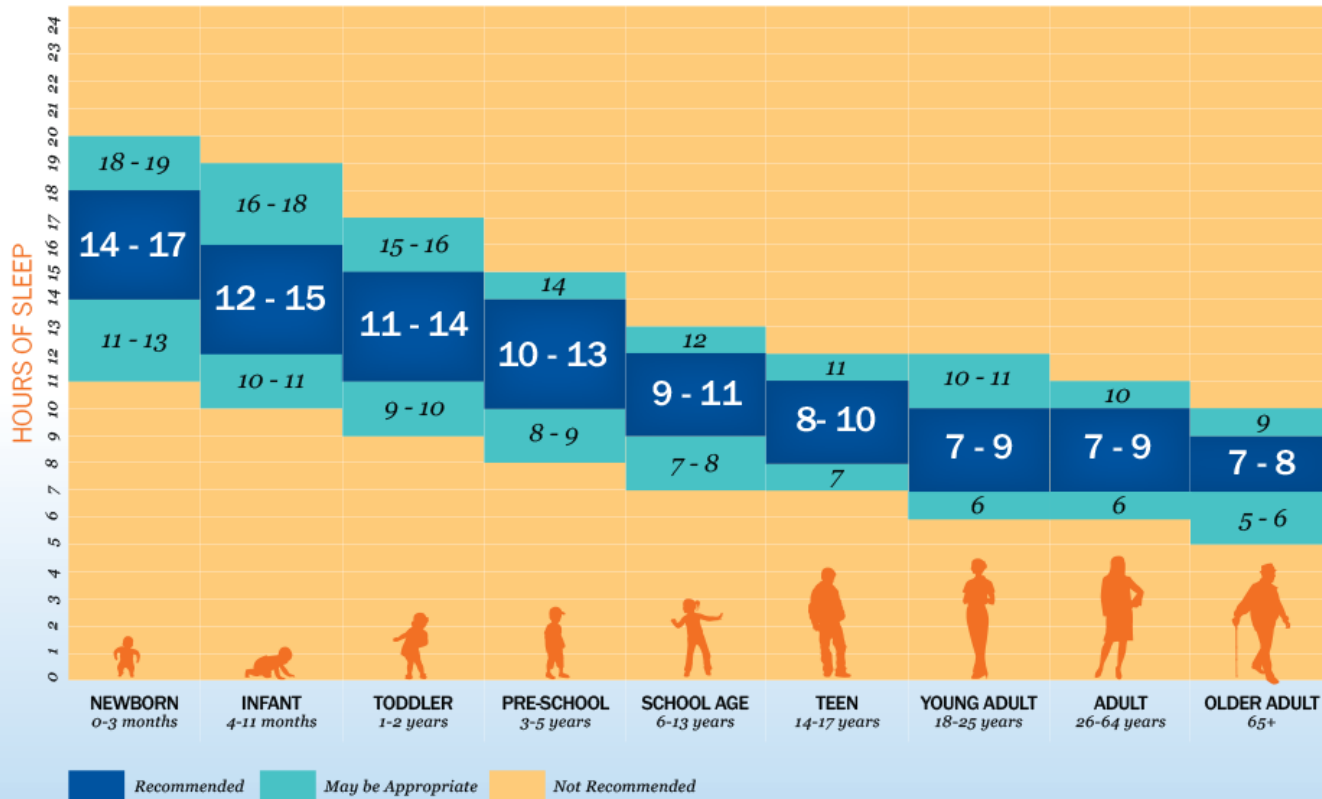


33% of Canadian adults experience insomnia at some point in their life

- 30%– 60% of all older persons have one or more sleep complaints



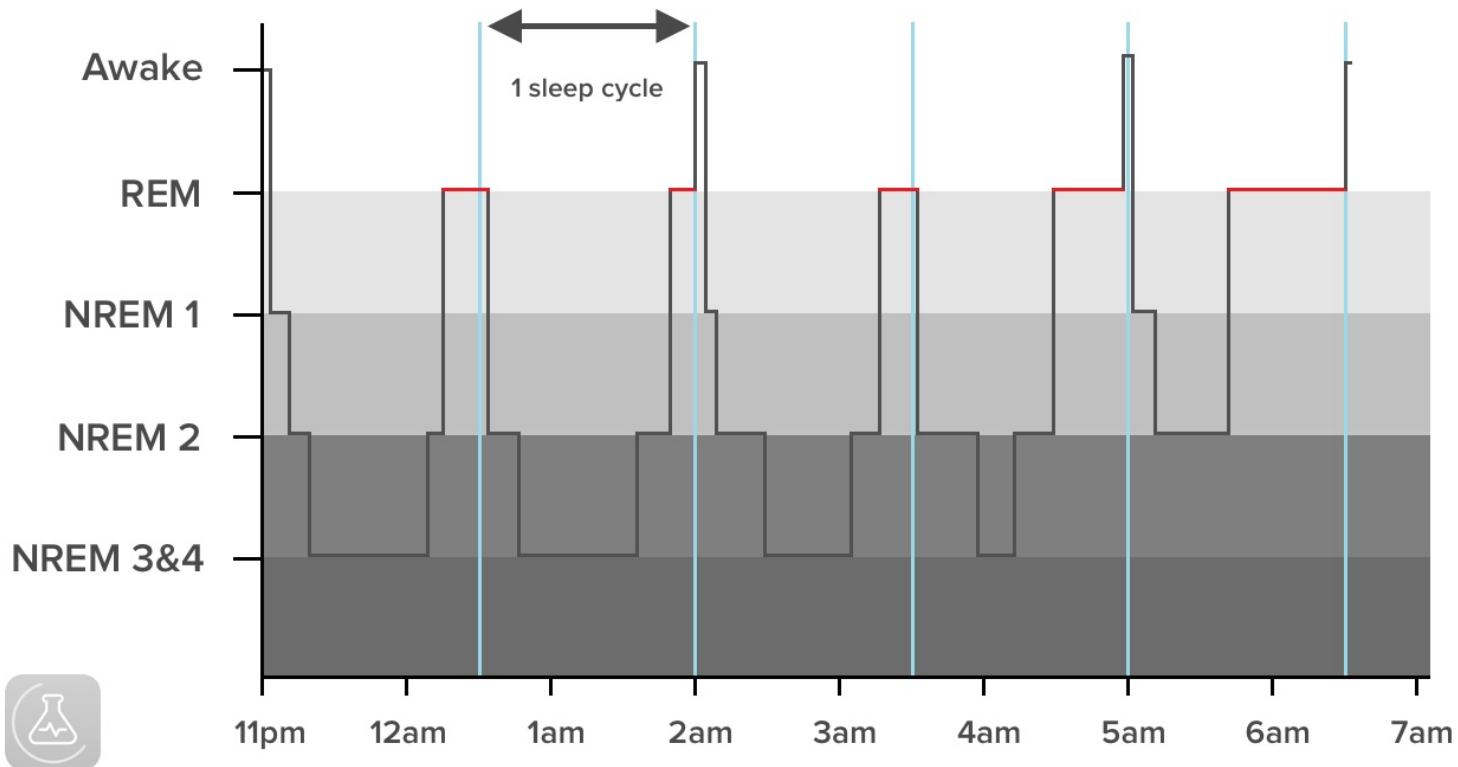
SLEEP DURATION RECOMMENDATIONS



SLEEPFOUNDATION.ORG | SLEEP.ORG

Hirshkowitz M, The National Sleep Foundation's sleep time duration recommendations: methodology and results summary, Sleep Health (2015), <http://dx.doi.org/10.1016/j.sleh.2014.12.010>

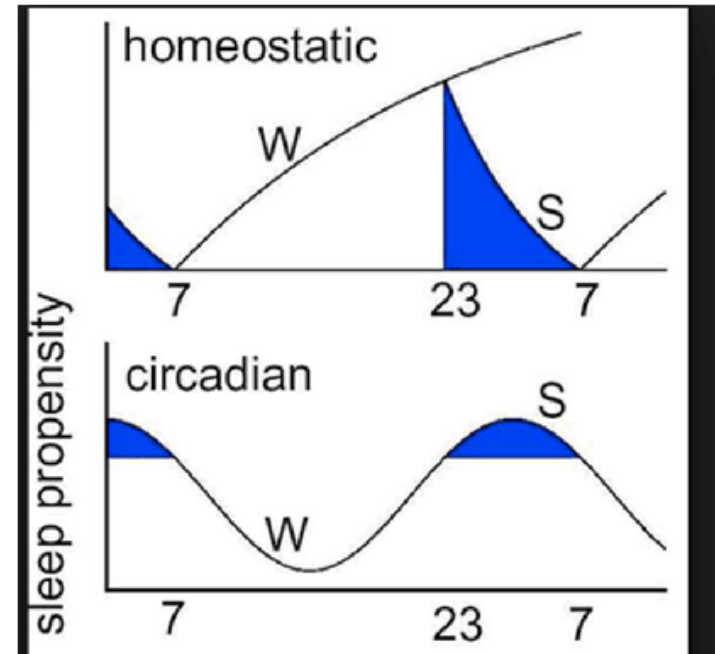
Sleep Cycles



<https://www.snorelab.com/the-architecture-of-sleep/>

Sleep is regulated by 3 factors:

- Sleep Drive
- Body Clock
- Arousal System



What Happens To Your Sleep as You Age:



We wake up more often in the night



We get less deep sleep



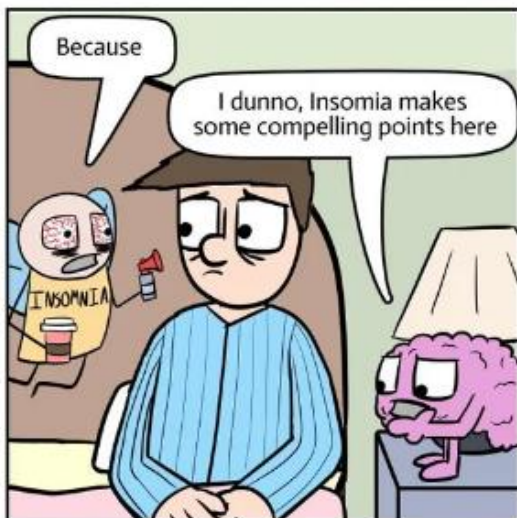
We wake up earlier

- Prone to sleep disruptions caused not just by insomnia but by other disorders such as :
 - Restless leg disorder
 - Periodic limb movement disorder
 - Sleep apnea
 - Chronic pain
 - Menopause
 - Co-morbid health issues

Chronic Insomnia: Definition

- **Difficulty sleeping**
 - Falling asleep
 - Staying asleep
 - Waking up too early
 - Not feeling rested when you wake up
- **Impairment in daytime function**
 - Irritability
 - Depression
 - Anxiety
 - Errors or accidents
- **Often associated with fatigue**
- **Occurs at least 3 nights per week for at least 3 months**





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Physical Effects

Growth & Development

- Important to child health & development
- Recovery after strenuous activity

Obesity

- Sleep deprivation associated with overweight/obesity

Health

- Cardiovascular disease, stroke, hypertension
- Insulin / diabetes

Mental Effects

Sleep loss has negative effects on ...

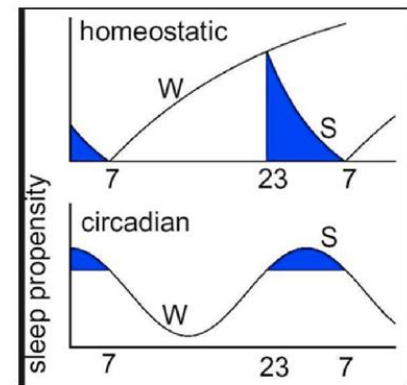
- Ability to focus
- Reaction time
- Memory
- Mood and temperament
- Stress

Six Sleep Tips That You Can Use Right Now

1. Keep a regular bedtime and risetime
2. Add in some exercise
3. Change what you are eating/drinking
4. Keep a sleep diary
5. Turn off electronics
6. Make a plan

Tip # 1: Keep a Regular Bedtime and Risetime

- Getting up at the same time every day keeps the circadian rhythm strong
- Our internal clock controls when we feel tired and when we have energy
- Limit daytime naps, but if necessary take one between 1-3pm



Tip #2 - : Add in some Exercise

- Exercising for 30 minutes each day can help you sleep better at night (John Hopkins Centre for Sleep)
- Aim for 2.5 hours a week to see the benefits



Tip # 3: Change what you're drinking/eating

- Avoid drinking/eating anything with caffeine at least 6 hours before bedtime
 - Caffeine in coffee, tea and cola can make it difficult to fall asleep and stay asleep
- Alcohol may help you to fall asleep, but it also affects how much time you spend in the deep sleep stages of sleep, and makes it more likely that you will wake up in the middle of the time
 - Alcohol limits deep restorative sleep

Tip # 4: Keep a Sleep Diary

- A daily diary of important sleep-related information.
- Filled out each morning about the previous nights sleep
- Gives you a better idea of your sleep patterns and habits (i.e. did you have a nap or drink a coffee to close to bedtime and now can't fall asleep?)
- Helps health care providers have a better understand and treat your sleep problem

Sample Sleep Diary

BASELINE

Sleep Diary for the week of: Sept 7/15 Louise

Bedtime: _____ Rise Time: _____

DAY of the WEEK <i>Which night is being reported on?</i>	MON	TUES	WED	THURS	FRI	SAT	SUN
Sleep timing 1. I went to bed at (clock time):	9 ⁴⁵ PM	11 ⁰⁰ PM	10 ³⁰ PM	9 ⁰⁰ PM	11 ⁰⁰ PM	1 ⁰⁰ AM	10 ³⁰ PM
2. I turned out the lights after (minutes):	40	5	25	20	40	10	10
3. I fell asleep in (minutes):	60	30	120	didn't	30	20	120
4. I woke up ___ time(s) during the night. <i>(number of awakenings):</i>	5	2	4	sleep at all!	0	2	1
5. The total duration of these awakenings was (minutes):	60	20	80	all!	—	40	30
6. After awakening for the last time, I was in bed for (minutes):	2	10	5	+	2	30	10
7. I got up at (clock time):	6 ⁰⁰ AM	7 ¹⁰ AM	6 ⁰⁰ AM	5 ³⁰ AM	6 ⁰⁰ AM	9 ⁰⁰ AM	6 ¹⁰ AM
Sleep quality The quality of my sleep was: <i>1=very poor; 10=excellent</i>	3	4	2	1	4	3	3
Naps <i>Number, time and duration</i>	—	—	—	2 PM 30 min	—	10 AM 40 min	—
Alcohol <i>Time, amount, type</i>	—	—	—	—	—	—	—
Sleep Medication <i>Time, amount, type</i>	—	11 ⁰⁰ PM zopiclone 7.5 mg	—	—	11 ⁰⁰ PM zopiclone 7.5 mg	—	—
Notes:				Mind won't turn off!			

Tip #5: Turn off Electronics

- Turn off electronics at least one hour prior to bedtime and store electronics away from bed.
- The light and stimulation from electronics can mimic daytime, which may suppress melatonin and make it difficult to fall asleep
- Buy an alarm clock



Tip # 6: Develop a personal relaxation plan

- Consider activities that can help you prepare for sleep and that gives your brain a chance to get into a state that is conducive to sleep
 - i.e. reading a book, adult coloring books, meditation, yoga, listening to calming music, crossword puzzles
- Before getting into bed, follow the same steps
 - i.e. putting on pj's, brushing teeth, dimming lights
- Over time, those actions become cues that tell you that it's time for sleep.

- If you are still have problems sleeping after trying these sleep tips, it might be important to explore whether there are any underlying causes to your sleep issues
- Once other underlying causes have been ruled out, you might be diagnosed with Chronic Insomnia- there is an effective treatment called Cognitive Behavioural Therapy for Insomnia or CBTi

Cognitive Behavioural Therapy (CBT) for insomnia (CBT-I) is currently the preferred treatment for insomnia.

Goals of CBT-I:

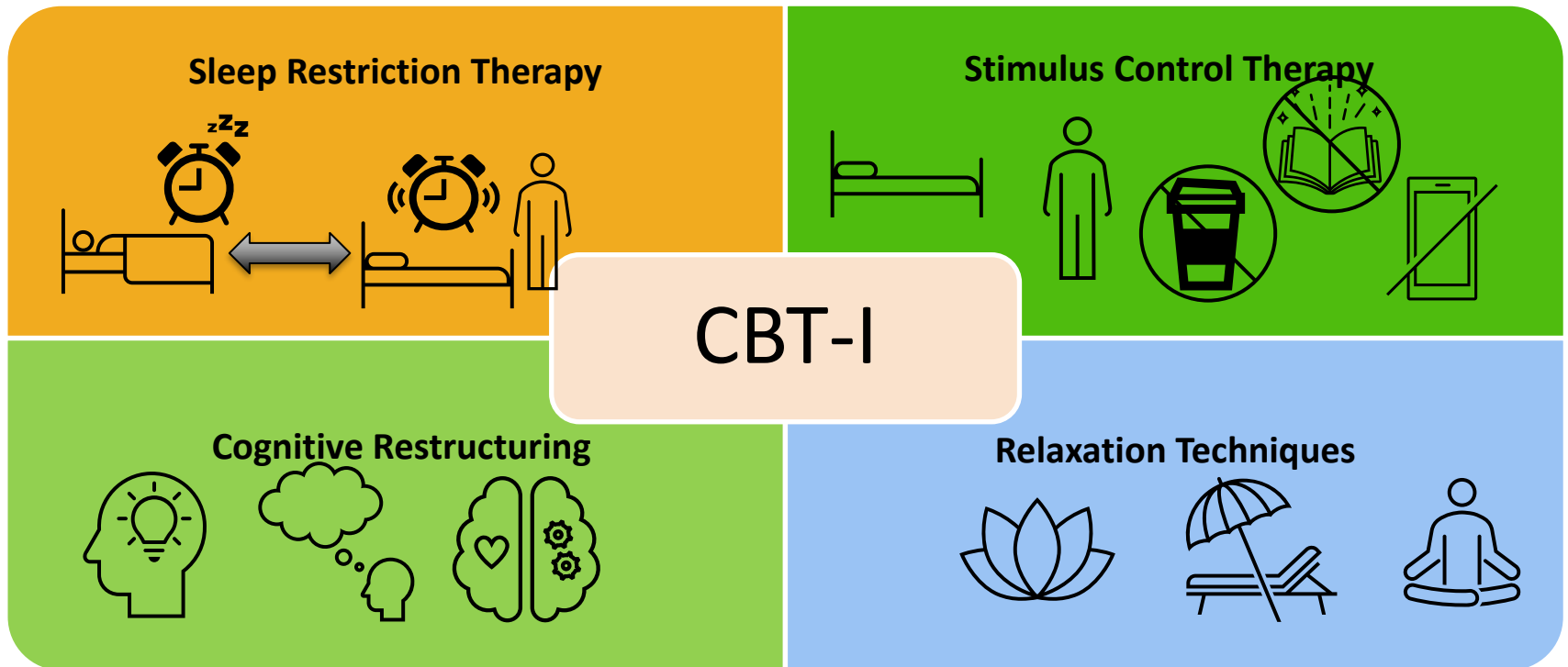
1. Improve sleep efficiency- get the most sleep for the time you are in bed
2. Improve sleep quality-more sleep satisfaction
3. Taper off sleeping medications

Treatment Options for Chronic Insomnia

Cognitive
Behavioural Therapy
For Insomnia (CBTi)

Self Help
Interventions

Main Components Of CBT-I



- Considered the most effective component of CBT-I
- In order to sleep better, restricting your time in bed will be important to build sleep drive
- Sleep diaries are used to calculate the amount of time spent in bed vs. the amount of time sleeping



Stimulus Control Therapy

- People with insomnia spend a lot of time in bed while awake.
- Involves breaking the connection between being in bed and wakefulness and strengthening the relationship between the bed and sleep
 - The bed is for sleep and sex!
 - No reading, watching TV, etc



Cognitive Therapy

- What thoughts do you have before bed?
- Identify: Thoughts, Feelings, Body Responses

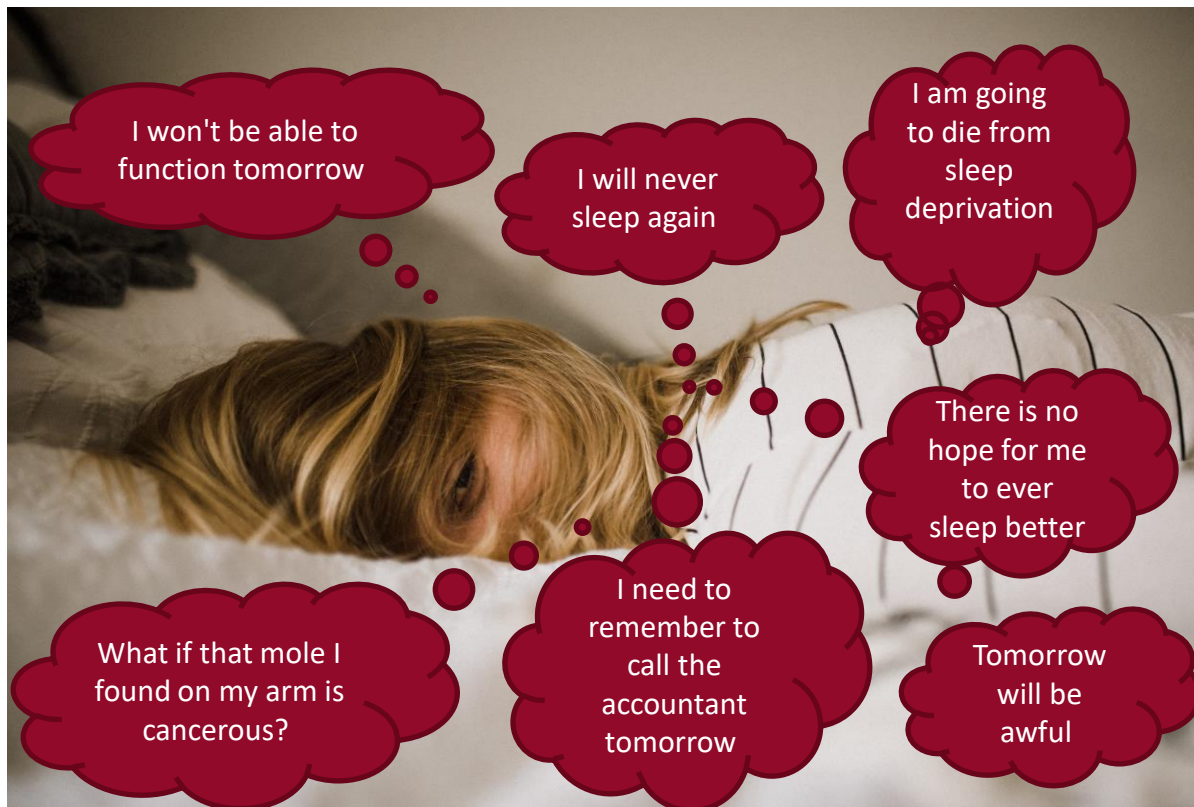


Photo by [Kinga Cichewicz](#) on [Unsplash](#)

- Goal is to achieve the relaxation response, which is the opposite of the “fight or flight” response
- Deep Breathing- Set aside time 2 times daily for 1-2 minutes to practice
- Use of guided meditation (Anxiety Canada website)
 - Mental Vacation
 - Body scan
 - Progressive muscle relaxation

INSOMNIA INTERVENTIONS

Self-Help Resources



Queen's
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DEPARTMENT OF
FAMILY MEDICINE



BOOKS

- Sink into Sleep. A Step-by-Step Workbook for Reversing Insomnia
- Quiet your Mind and Get to Sleep: Solutions to Insomnia for those with Depression, Anxiety or Chronic Pain
- The Insomnia Workbook



ONLINE RESOURCES

- mysleepwell.ca
- sinkintosleep.com
- sleeponitcanada.ca
- deprescribingnetwork.ca



ONLINE CBT-I

- Go! To Sleep
- SHUTi (now Somryst)
- HALEO
- Sleepio



APPS

- CBTi Coach



RESOURCES FOR YOUTH SLEEP PROBLEMS

- Book: Goodnight Mind for Teens
- Website and app: dozeapp.ca
- Online program: betternightsbetterdays.ca

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Sleep Medications

We should be able to fall asleep without any medications!

Optimal Interventions for Improvement in Sleep by Time

Pharmacological (e.g. lorazepam)

Immediate

Pharmacological (e.g. lorazepam), CBT-I or Combination

Short Term (2-4 weeks)

CBT-I

Long Term

Sleep Medications, Myths versus Facts

The medication I am taking is a mild tranquilizer that is safe when taken for long periods of time.

True or False?

Debunking Myths: Sleep Medications

FALSE

Sleeping medications have side effects:

- 5-fold higher risk of memory and concentration problems
- 4-fold increased risk of daytime fatigue
- 2-fold increased risk of falls and fractures (hip, wrist)
- 2-fold increased risk of having a motor vehicle accident

Key Facts on Sleep Medications

Facts:

- Intended for **short term use**
 - ~ 2 weeks up to max 4 weeks
- Never studied for long-term use
- Associated with physical dependence
 - Less effective over time
- Associated with side effects
 - Daytime sleepiness and unsteadiness
 - Increased falls risk
 - Risk of cognitive impairment
- **Benzodiazepines:** alprazolam, bromazepam, clonazepam, diazepam, flurazepam, lorazepam, oxazepam, temazepam, triazolam
- **“Z” drugs:** (es)zopiclone, zolpidem
- **Antidepressants:** mirtazapine, trazodone, amitriptyline, imipramine, nortriptyline, etc.
- **Antipsychotics:** quetiapine, risperidone, etc.
- **Over the counter:** melatonin, valerian root, Gravol, Benadryl (diphenhydramine)



How do sleep medications work?

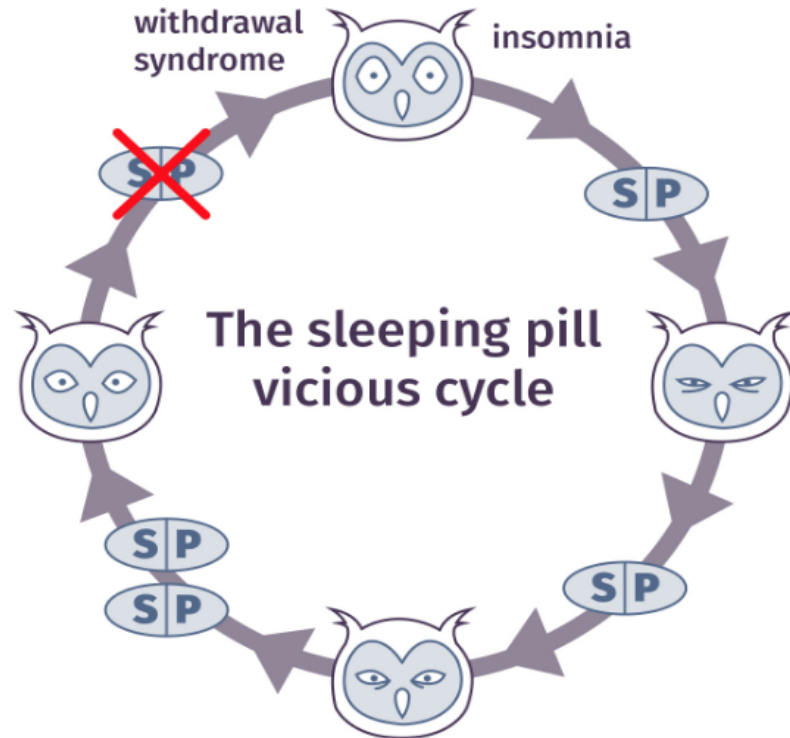
Medication	How it works?
Anti-histamines (i.e. Gravol, Benadryl)	<ul style="list-style-type: none">• Drowsiness is a side effect of the drug
Melatonin	<ul style="list-style-type: none">• Hormone in the body that signals nightfall• Used for circadian rhythm changes - i.e. jet lag, shift work
Benzodiazepines (i.e. lorazepam, oxazepam)	<ul style="list-style-type: none">• Reduced excitability & communication between neurons• Calming effect on the brain<ul style="list-style-type: none">○ Improves sleep onset latency by 10-20 minutes○ Increases total sleep time by 30-60 minutes○ Chronic use NNT =13 NNH =6
Z-drugs (i.e. zopiclone, zolpidem)	
Antidepressants	<ul style="list-style-type: none">• Several chemical signals (serotonin, dopamine, histamine) in the brain are altered• Drowsiness maybe a side effect of the drug
Antipsychotics	

The Sleeping Pill Vicious Cycle

Insomnia → sleeping pill → SLEEP →
sleeping pill works less → double dose of
sleeping pill → decide to discontinue
sleeping pill → withdrawal syndrome →
restart sleeping pill → CYCLE repeats


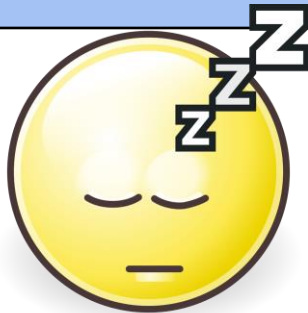


Withdrawal Symptoms:

- INSOMNIA
- Anxiety
- Irritability
- Headache
- Sweating
- Shakiness
- Trouble concentrating



Reference: <https://mysleepwell.ca/sleeping-pills/why-sleeping-pills-are-habit-forming/>

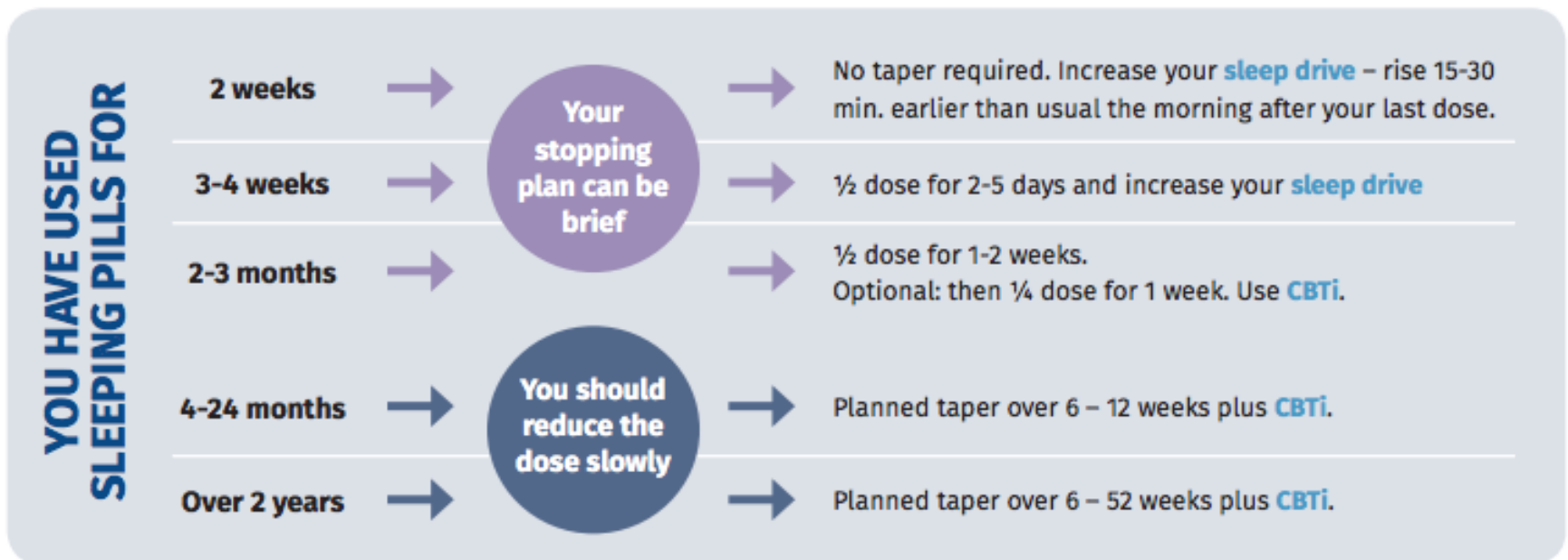
Sleep Medications and Physical Dependence

Time	Dose	Effect
April 1		
May 1		
June 1		

- Over time, the body builds tolerance to sleeping medications
- Don't abruptly **stop**, this may lead to trouble sleeping and withdrawal
- **To stop: slowly reduce the drug in conjunction with your physician or pharmacist**

Sleep Medications: Stopping Guidance

Stopping Guidance



CBT-I works with or without sleeping pills!

Reference: <https://mysleepwell.ca/wp-content/uploads/2018/07/Stop-Sleeping-Pills-Guide-and-Planner.pdf>

Debunking Myths: Alcohol, Cannabis and Sleep



- Alcohol causes sleepiness at first, wakefulness later on
- Intoxication may increase wakefulness, restless sleep, & vivid dreams
- Limit alcohol a few hours before bed



- Cannabis has **insufficient evidence for insomnia**
- Chronic use builds tolerance for sleep inducing effects
- Withdrawal symptoms include **insomnia, unpleasant dreams** that can last 1-2 weeks

What's Next

- Follow the sleep tips outlined above
- If you are still sleeping poorly, talk to your Doctor because there could be an underlying medical condition affecting your sleep
- There are a lot of risks associated with long term use of sleep medications
- If you are diagnosed with Chronic Insomnia, CBTi might be right for you!

QUESTIONS?