

# How Evidence-Based Sleep Solutions Can Support Those Recovering from Trauma

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2:45 PM to 4:15 PM

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# Pete

- 45 year old male
- Paramedic for 20 years
- Married with two kids
  - 19 and 15 year old living at home
- Pete injured his back after someone rear-ended his car in 2024:
  - Back pain
  - Insomnia (mainly 1-2 hours to fall asleep)
  - Tense, vigilant – Always checking rearview mirror when driving
  - Every day, several times a day, involuntarily thinks about accident, as well as the chest tube procedure
  - Nightmares 1-2 x per month
- Returns to work 3 days after accident

# Pete talks to his doctor about his sleep problems

- Told to see a therapist for PTSD, a physiotherapist for his back pain, and “the nightmares and insomnia will go away”
- Referred for Cognitive Processing Therapy and physiotherapy, and given a sleep hygiene handout
- Four months later:
  - PTSD symptoms greatly improved after CPT
  - His insomnia remains a problem
  - Nightmares have decreased but he continues to have them every other week
  - Back pain has improved with physiotherapy but there are periodic problems
  - Pete’s wife insists he return to his doctor about his sleep problem
- Pete’s doctor refers him for an overnight sleep study and find moderate obstructive sleep apnea
  - Prescribed positive airway mask and given a sleep hygiene handout
  - Pete stops using the mask almost immediately, because he finds it uncomfortable and thinks it is worsening his insomnia
  - He hears about CBT for insomnia at a Wellness talk at work and accesses the list of providers in his province at [researchsleep.ca/cbtimap](https://researchsleep.ca/cbtimap)

# Meeting the sleep therapist

The CBT-I provider explains that the insomnia can be treated easily but the PAP mask is important to eliminate hypoxic events to address the problem finding and reverse the diseases apnea will lead to

The provider explains that the sleep study revealed that Pete stops breathing for more than 15 seconds 22 times every hour

- This means that Pete is being deprived of oxygen which can lead to chronic diseases and a more immediate risk of falling asleep at the wheel
- PAP masks are not to sleep better, they are to prevent your airway from collapsing and to keep oxygen circulating

Mask  
=  
panic  
symptoms

Avoidance  
=  
immediate  
anxiety  
decrease

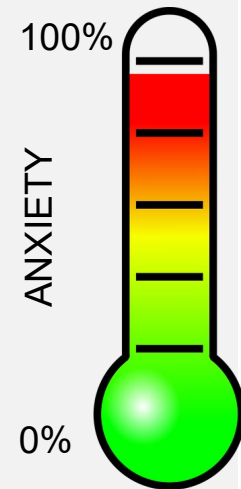
# Addressing panic responses to the mask

To treat claustrophobic reactions to the mask, expose, wait for habituation\* and move to next step.

1. During day, sitting up, hold mask inches from face with it on
2. During day, sitting up, hold mask on face with it turned on
3. During day, sitting up, put mask on with it turned on
4. During day, nap attempt
5. Repeat 1-4 but at night

Pete gets to step 5 and simply starts wearing it at night, when he wakes up with it, he puts it back on

PAP data show that his events are gone with the mask



PAIRING THE MASK WITH NEUTRAL EXPERIENCE

\*50% drop in anxiety then wait 15 minutes

# Nightmare strategies

- Most people who have nightmares following trauma eventually stop having them. Nightmares gradually change into less disturbing dreams.
- Over time, nightmares take on a life of their own.
- Start to become an unwanted habit.
- Imagery Rescripting and Rehearsal Therapy (IRT) can produce large effects on nightmare frequency/intensity and PTSD symptoms (Davis et al., 2011; Krakow et al., 2001)
- IRT: Daytime only practice, at night, get out of bed until sleepy
  1. Write out a nightmare (do not select a reenactment of the trauma) in first person, present tense, in as much detail as possible
  2. Change the dream in any way you want, even writing a new dream
  3. Close your eyes and imagine the new dream as vividly as possible
  4. Rehearse daily for about 20 min.; no more than 2 new dreams per week

# Effective treatment for Insomnia Disorder

- Gold standard for chronic insomnia is CBT-I - Cognitive Behaviour Therapy for Insomnia (Edinger et al., 2021)
  - more durable than drugs
  - American Academy advises against sleep hygiene as a standalone

What about when someone has co-occurring chronic pain?

What about when someone has co-occurring obstructive sleep apnea?

What about when someone has co-occurring PTSD?

What about when someone has co-occurring Nightmare Disorder?

CBT-I is a brief (2-6 sessions) treatment:

1. Restrict time-in-bed to increase sleep drive (then extend)
2. Only be in bed when asleep or close to it to re-associate bed with sleep only
3. Challenge unhelpful beliefs about sleep and fatigue that can get in the way

(Edinger & Carney, 2015)

# What is Insomnia Disorder?

- Difficulty falling asleep, staying asleep, or both?
- Do these sleep difficulties occur at least half the days of the week, for at least 3 months?
- Do these sleep difficulties cause difficulties throughout the day, such as fatigue, concentration/memory troubles, emotional lability, or are you bothered by the sleep problem?
- Do these problems occur despite having an adequate opportunity and condition for sleep?
- The sleep problems are not better accounted for by another condition or substance.

# Why didn't the insomnia resolve?

Occasional insomnia:

Virtually anything



Coping:

- Trouble falling asleep and staying asleep – managing by napping and getting sleep where he can – taking magnesium and gummies on days off
- Back pain is improving with physiotherapy
- Less intrusive thoughts about his accident but more about past MVA traumas he's attended
- Moody, irritable, tired, struggling to stay awake during the day and during night shift - caffeine
- Still checking rearview mirror when driving
- Nightmares 1 biweekly

Back pain

PTSD symptom

Nightmares 1-2 x per month

Trouble falling asleep (1-2 hours) a few times per week



Two months

# Why didn't the insomnia resolve?

Occasional insomnia:

Virtually anything

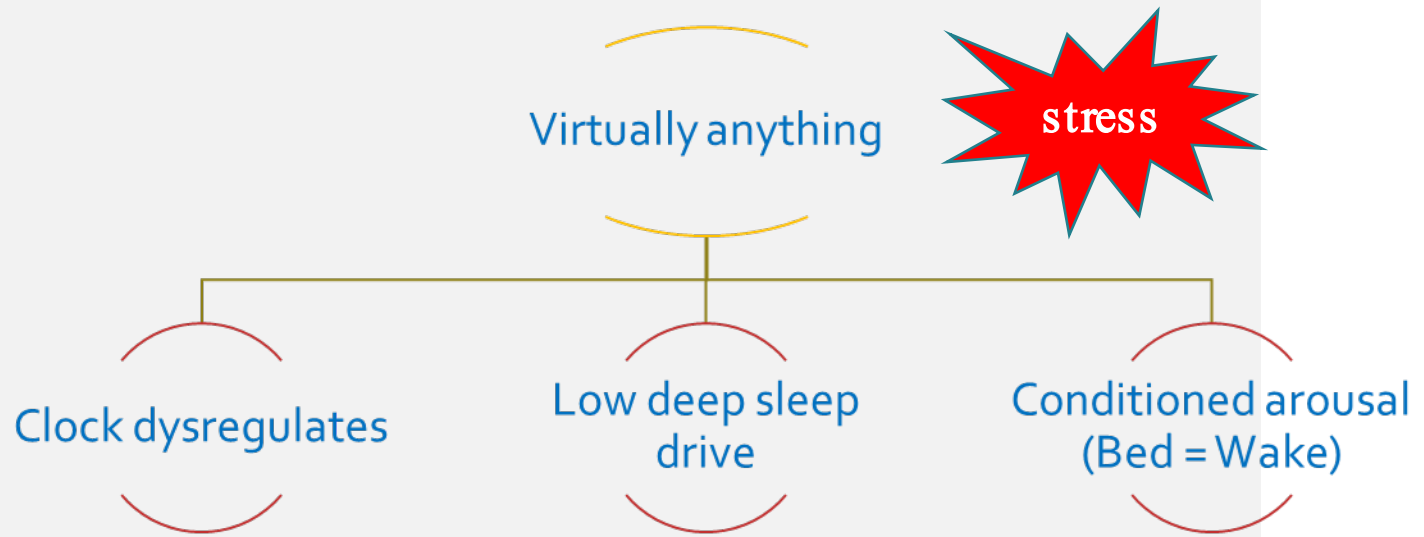
stress

When insomnia becomes chronic:

Clock dysregulates

Low deep sleep drive

Conditioned arousal  
(Bed = Wake)



# Insomnia can be a symptom or a disorder

Occasional insomnia:

Virtually anything



Accident and recovery

When insomnia becomes chronic:

Clock dysregulates

Getting sleep where he can – going to bed earlier, sleeping in when possible  
4 on 4 off shift

Low deep sleep drive

Napping  
Getting sleep where he can (increased time-in-bed)  
Rests in bed during back pain  
Tired – decreased activity  
Dozing because struggling to stay awake during waking hours

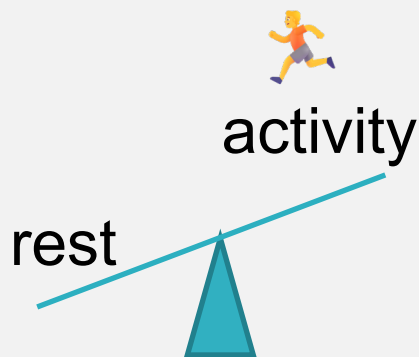
Conditioned arousal (Bed = Wake)

Napping  
Increased time-in-bed while awake  
Rests in bed (awake) during back pain  
Dozing (sleeping outside sleep window)  
Staying in bed after nightmares

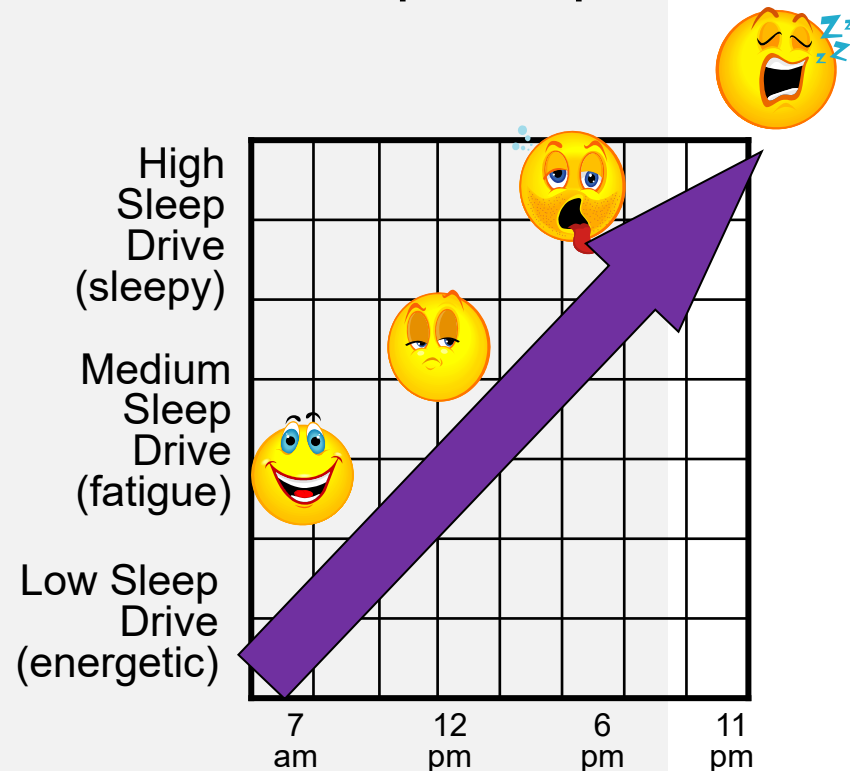
# Build sleep drive to sleep deeply and recover

Low deep sleep drive

- We make up for lost sleep with increased deep sleep (↑growth hormone), not increased sleep
- How does the body know to increase deep sleep?
  - Monitors: rest and activity



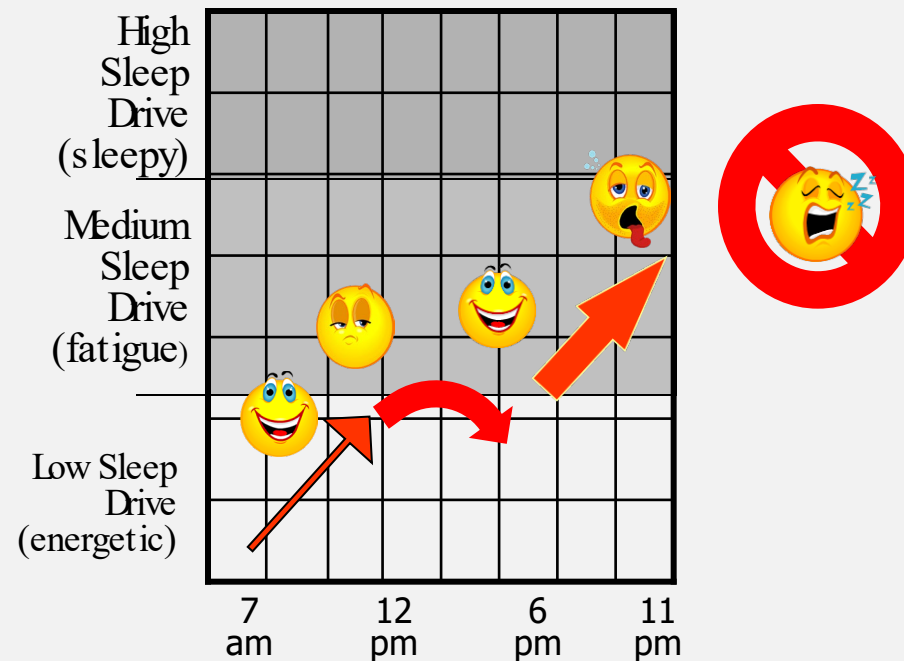
More rest, less deep sleep  
Less rest, more deep sleep



# "I'm super active, Dr. Carney"

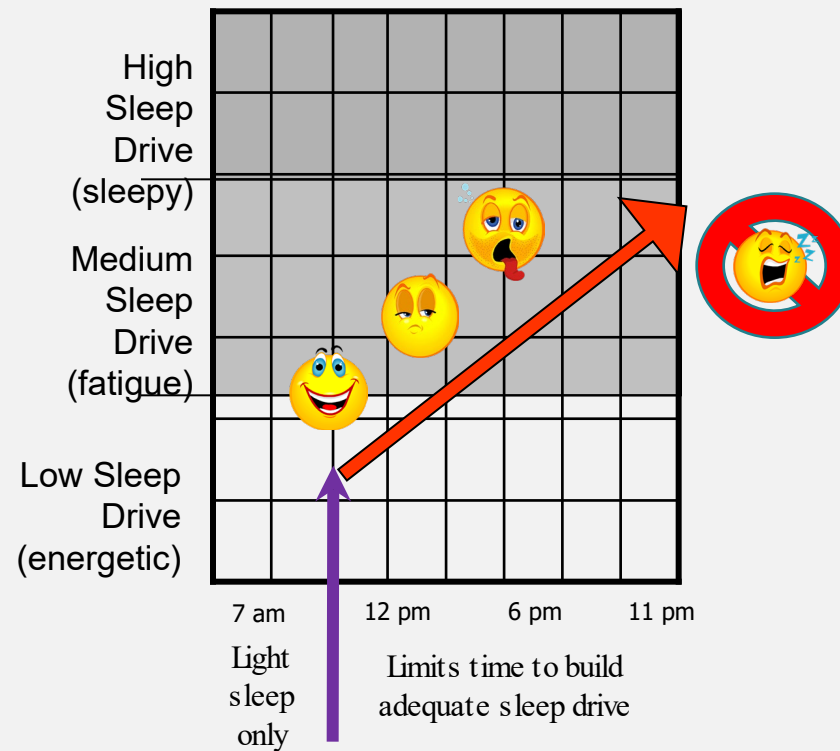
Day	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed		
7-8 am	day	day	sleep attempt	sleep attempt	sleep attempt	sleep attempt	sleep attempt	day	day	day		
8-9 am			sleep attempt			sleep attempt						
9-10 am												
10-11 am												
11-12 pm												
12-1 pm												
1-2 pm												
2-3 pm							nap					
3-4 pm												
4-5 pm												
5-6 pm												
6-7 pm												
7-8 pm	sleep attempt	sleep attempt	night	night	sleep attempt	sleep attempt	sleep attempt	sleep attempt	sleep attempt	sleep attempt		
8-9 pm												
9-10 pm												
10-11 pm												
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12-1 am												
1-2 am												
2-3 am												
3-4 am												
4-5 am												
5-6 am												
6-7 am												
Time in bed	9.25 h	12h	N/A	9h	19h	11h	11h	10h	9h	10h	Averages 11.14h	
Sleep	6h	5.5h		7.5h	11.5h	6.5h	6h	7.5h	7h	6h	7h	

# Naps Decrease Sleep Drive



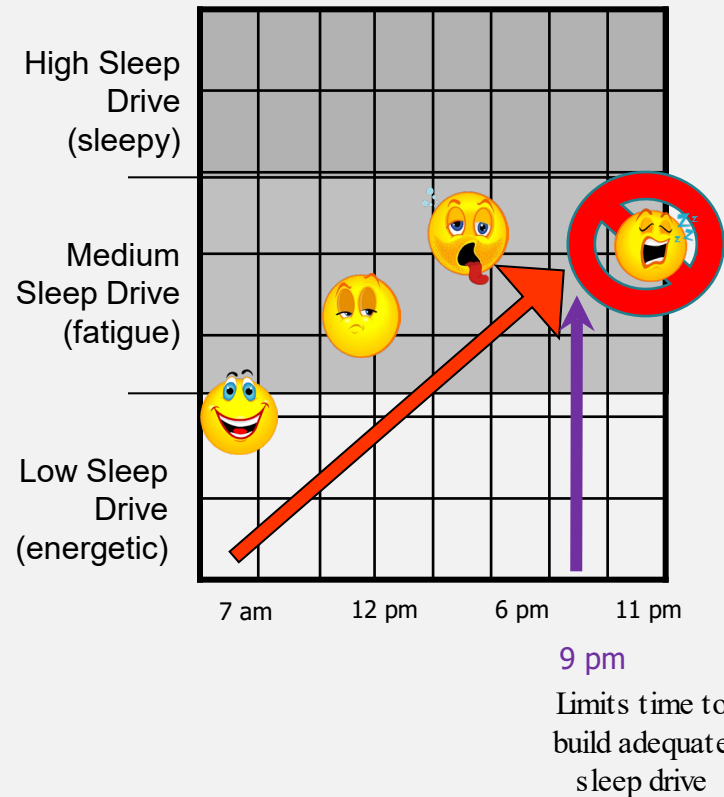
# Sleeping-in/laying-in awake decreases deep sleep drive

Less deep sleep  
= Lighter sleep  
= More time awake  
= Less restoration



# Going to bed early decreases deep sleep drive

Less deep sleep  
= Lighter sleep  
= More time awake  
= Less restoration

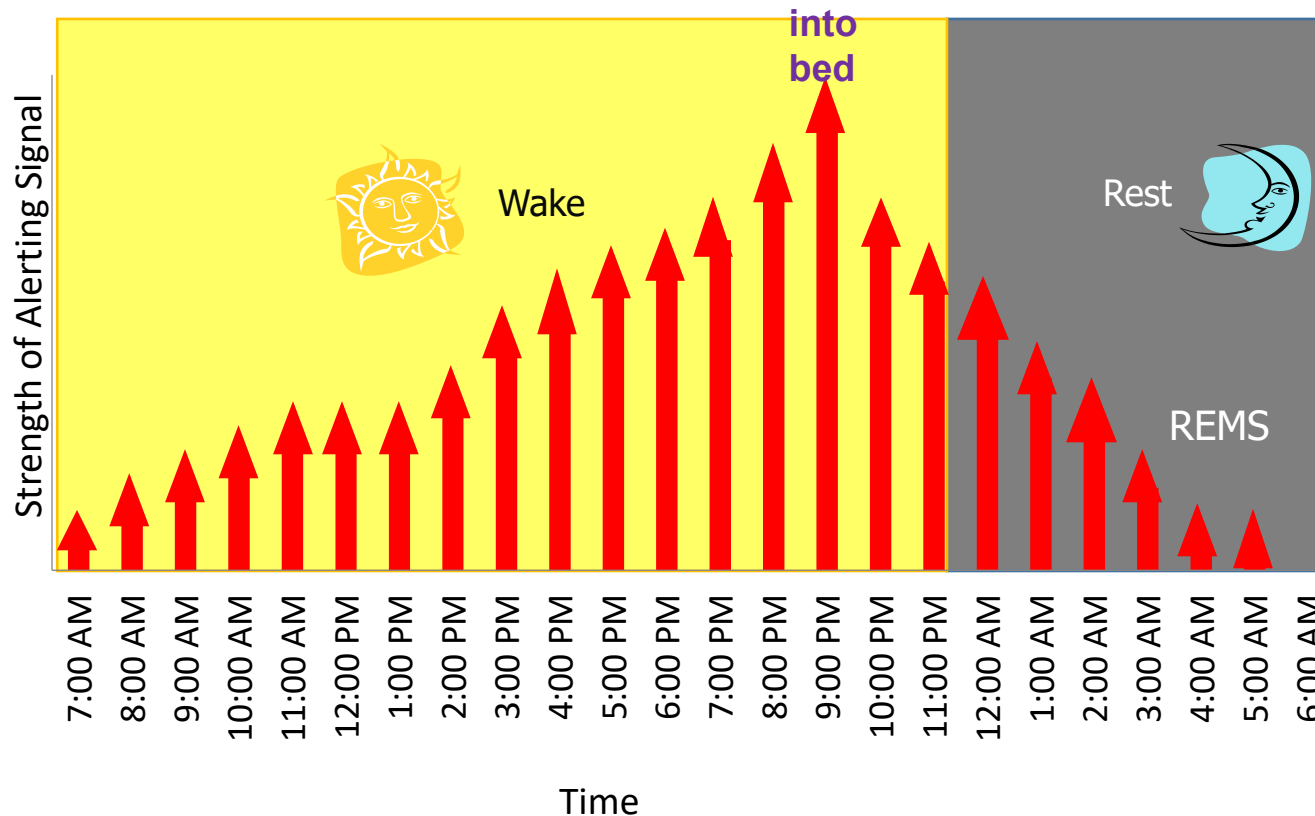


Reproduced from *Quiet Your Mind and Get to Sleep* (Carney and Manber, 2009)

# Body Clock



- System that regulates timing of sleep, wake and alertness, as well as hormones, mood
- Longer than 24 hours so it requires daily setting – variable schedules including shiftwork create jetlag symptoms




# "Any causes for your jetlag without travelling?"

Day	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed							
7-8 am	day	day	sleep attempt	sleep attempt	sleep attempt	sleep attempt	sleep attempt	day	day	day							
8-9 am			sleep attempt			sleep attempt											
9-10 am																	
10-11 am																	
11-12 pm																	
12-1 pm																	
1-2 pm																	
2-3 pm							nap										
3-4 pm																	
4-5 pm																	
5-6 pm																	
6-7 pm																	
7-8 pm			night	night													
8-9 pm																	
9-10 pm	sleep attempt	sleep attempt						sleep attempt	sleep attempt	sleep attempt	sleep attempt	sleep attempt					
10-11 pm					sleep attempt	sleep attempt											
11-12 am																	
12-1 am																	
1-2 am																	
2-3 am																	
3-4 am																	
4-5 am																	
5-6 am																	
6-7 am																	
Rise			05:30	09:00		18:00	19:00						09:00	09:00	07:00	06:00	07:00

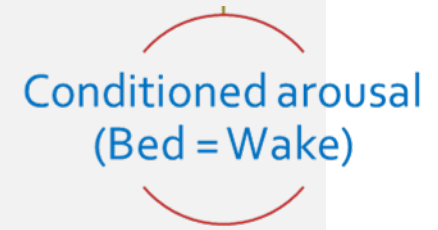
# Conditioned Arousal

Conditioned arousal  
(Bed = Wake)



- The arousal system can override the sleep promoting system
  - Allows us adequate respond to dangerous threats
  - Allows you to go out on calls
- If bed becomes paired with wakefulness
  - A switch goes on when you get into bed
- Conditioned arousal develops *in response to* spending prolonged periods awake in bed

# The Hidden Cause of Chronic Insomnia



Bed  
+  
Sleeplessness, tossing,  
turning, upset  
=  
conditioned arousal

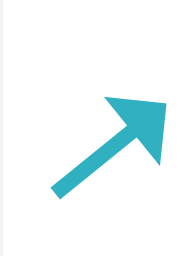
# Why didn't Sleep Hygiene work for Pete?

- Myth that it works
  - APA criteria (Morin et al, Sleep 1999; Morin et al, Sleep, 2006)
  - American Academy of Sleep Medicine (Edinger et al., 2020) and Ontario Health Insomnia Standards advise against it as a treatment [ontariohealth.ca](https://www.ontariohealth.ca)
  - Used as a sham/placebo treatment in trials
- It's not what causes insomnia
  - No difference between insomnia disorder and good sleepers (e.g., Harvey, 2000; Yang et al., 2010)

## Sleep Hygiene (Hauri, 1977)

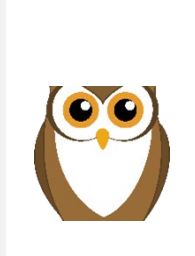
- Caffeine – timing and reduction
- Nicotine reduction/elimination
- Prescribed exercise - timing
- Light bedtime snack (milk, peanut butter)
- Avoid middle of the night eating
- Reduce alcohol & other substances
- Optimize environment: light, noise, temperature

“Get more sleep.”



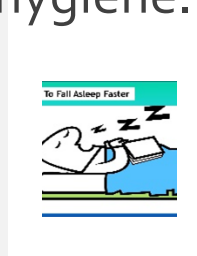
More time in bed can create insomnia – your body determines how much sleep you get, not you. Effort is counter-productive.

“Get to bed earlier.”



This can create/worsen insomnia, especially for night owls (which is genetic).

“If you can’t sleep, use sleep hygiene.”



Sleep hygiene is ineffective. People with insomnia are not to blame for their insomnia.

Poor messaging

Try harder

# "See any causes for your jetlag without travelling?"

Day	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed							
7-8 am	day	day	sleep attempt	sleep attempt	sleep attempt	sleep attempt	sleep attempt	day	day	day							
8-9 am			sleep attempt			sleep attempt											
9-10 am																	
10-11 am																	
11-12 pm																	
12-1 pm																	
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2-3 pm							nap										
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7-8 pm			night	night													
8-9 pm																	
9-10 pm	sleep attempt	sleep attempt						sleep attempt	sleep attempt	sleep attempt	sleep attempt	sleep attempt					
10-11 pm					sleep attempt	sleep attempt	sleep attempt						sleep attempt				
11-12 am																	
12-1 am																	
1-2 am																	
2-3 am																	
3-4 am																	
4-5 am																	
5-6 am																	
6-7 am																	
Rise			05:30	09:00		18:00	19:00						09:00	09:00	07:00	06:00	07:00

# "See any possible messages *not* to recover?"

Day	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed	
7-8 am	day	day	sleep attempt	sleep attempt	sleep attempt	sleep attempt	sleep attempt	day	day	day	
8-9 am			sleep attempt			sleep attempt					
9-10 am											
10-11 am											
11-12 pm											
12-1 pm											
1-2 pm											
2-3 pm							nap				
3-4 pm											
4-5 pm											
5-6 pm											
6-7 pm											
7-8 pm			night	night							
8-9 pm											
9-10 pm	sleep attempt	sleep attempt	night	night	sleep attempt	sleep attempt	sleep attempt	sleep attempt	sleep attempt	sleep attempt	
10-11 pm											
11-12 am											
12-1 am											
1-2 am											
2-3 am											
3-4 am											
4-5 am											
5-6 am											
6-7 am											
Time in bed	9.25 h	12h	N/A	9h	19h	11h	11h	10h	9h	10h	11.14h

Sleep 6h 5.5h 7.5h 11.5h 6.5h 6h 7.5h 7h 6h 7h

# Increasing sleep drive and regulating the clock

Increasing sleep drive will:

- Make it easier to fall asleep and stay asleep
- Help with pain (because it is associated with growth hormone)
- Make it easier to override conditioned arousal
- Increase sleepiness (which decreases intrusive thoughts at night)

How to do this?

Time-in-bed restriction: restrict to get rid of wakefulness, then extend

1. Monitor sleep  
[consensusleepdiary.com](https://consensusleepdiary.com)
2. Find the average amount of nocturnal sleep over a two week period? 7h19m
3. Limit sleep opportunities to average (nocturnal) sleep time + 30 minutes  $\approx$  7.45 hours

# "I don't sleep"

Day	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed		
7-8 am	day	day	sleep attempt	sleep attempt	sleep attempt	sleep attempt	sleep attempt	day	day	day		
8-9 am			sleep attempt			sleep attempt						
9-10 am												
10-11 am												
11-12 pm												
12-1 pm												
1-2 pm												
2-3 pm							nap					
3-4 pm												
4-5 pm												
5-6 pm												
6-7 pm												
7-8 pm			night	night								
8-9 pm												
9-10 pm	sleep attempt	sleep attempt						sleep attempt	sleep attempt	sleep attempt	sleep attempt	sleep attempt
10-11 pm												
11-12 am												
12-1 am												
1-2 am												
2-3 am												
3-4 am												
4-5 am												
5-6 am												
6-7 am												
Time in bed	9.25 h	12h	N/A	9h	19h	11h	11h	10h	9h	10h		
Sleep	0	0		0	0	1 hr	0	0	0	0		

# Increasing sleep drive and regulating the clock

## Time-in-bed restriction

1. What is the average amount of nocturnal sleep over a two week period? 7h19m
2. Limit sleep opportunities to average (nocturnal) sleep time + 30 minutes  $\approx$  7.45 hours
  - Where to put the 7.45 hour opportunity?
  - Up to Pete but we are looking for some regularity...
    - Has to get up at 5:45 am twice every week - used to get up at 7 am on days off so he thinks this will be doable.
    - Usually goes to bed at 9 am but doesn't fall asleep then, so he thinks 10 pm is doable

Don't  
set TIB  
below 6  
hours

# Initial time-in-bed schedule for two weeks

Day	Mon	Tues	Wed	WIND-DOWN	Fri	Sat	Sun	Mon	Tues	Wed
7-8 am	day	day		sleep attempt max 7.75 hours					day	day
8-9 am										
9-10 am										
10-11 am										
11-12 pm										
12-1 pm										
1-2 pm										
2-3 pm										
3-4 pm			nap opportunity		LiMBS					
4-5 pm										
5-6 pm										
6-7 pm										
7-8 pm										
8-9 pm	WIND-DOWN			WIND-DOWN FROM WORK-RELATED ACTIVITIES						
9-10 pm	sleep attempt 10 pm to 5:45 am	sleep attempt 10 pm to 5:45 am	night <u>Hydrate</u> <u>Eating</u> <u>Light</u> <u>Move</u>	night <u>Hydrate</u> <u>Eating</u> <u>Light</u> <u>Move</u>	sleep attempt 10 pm to 5:45 am	sleep attempt 10 pm to 5:45 am	sleep attempt 10 pm to 5:45 am	sleep attempt 10 pm to 5:45 am	sleep attempt 10 pm to 5:45 am	sleep attempt 10 pm to 5:45 am
10-11 pm										
11-12 am										
12-1 am										
1-2 am										
2-3 am										
3-4 am										
4-5 am										
5-6 am	LiMBS			LIGHT, BREAKFAST, MOVEMENT, SHOWER						
6-7 am										

SLEEPINESS/  
FATIGUE  
MANAGEMENT

HELM

Pre-night shift  
nap opportunity

Limit driving  
day after  
second night  
shift – nap for  
safety

Commute with  
friend on night  
shift so no  
morning driving

Nightshift meal  
and snack  
plans

# Getting rid of conditioned arousal

Most effective treatment is Stimulus Control: Be in bed only when asleep

1. Only get into bed when you are sleepy/actively falling asleep
2. Get out of bed when unable to sleep  
Don't return to bed until sleepy again
3. No wakeful activities in bed.
4. Don't nap.
5. Maintain a regular rise time 7 days per week, irrespective of how you slept.

Bed =  
sleep

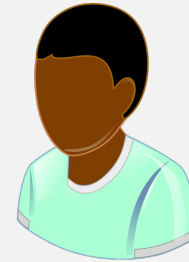
# Pete's Two-Week Plan

1. Only get into bed when you are sleepy/actively falling asleep, and never before 10 pm
2. Get out of bed when not sleepy (e.g., unable to sleep for 15 minutes, nightmare, pain etc.). Don't return to bed until sleepy again.
3. No wakeful activities in bed.
4. Don't nap unless it is pre-nightshift or if there is a safety issue (e.g., driving).
5. Get out of bed at 5:45am 7 days per week, irrespective of how you slept.
6. Limit daytime sleep to 7.5 hours
7. Wind-down an hour before bed (not goal-directed)
8. Wear PAP mask nightly.

# “This won’t work because of my active mind...”

- Active mind strategies don’t address sleep
- Stimulus control and time in bed restriction improve sleep AND active minds.
- Why?
  - High sleepiness makes it more likely to fall asleep before active mind starts
  - Getting out of bed when it occurs gets rid of this unwanted mental habit (e.g., stimulus control)
- If you have something on your mind, talk, journal in the evening when you are more capable of working on it
- If it relates to anxiety or depression, seek treatment

# “This won't work because of my active mind...”



Would you be willing to test that the active mind is happening **BECAUSE** you are awake, rather than it is **CAUSING** you to be awake?



For two weeks, get out of bed when it happens to break the habit and increase sleepiness by restricting time in bed to what you can sleep  
We will compare your sleep and your active mind experience to the previous two weeks and see what you think?

# Pete's Two-Week Plan

1. Only get into bed when you are sleepy/actively falling asleep, and never

before 10 pm

2. Get out of bed when not sleepy (e.g., unable to sleep for 15 minutes, nightmare, pain etc.). Don't return to bed until sleepy again.

3. No wakeful activities in bed.

4. Don't nap unless it is pre-nightshift or if there is a safety issue (e.g., driving).

5. Get out of bed at 5:45am days per week, irrespective of how you slept.

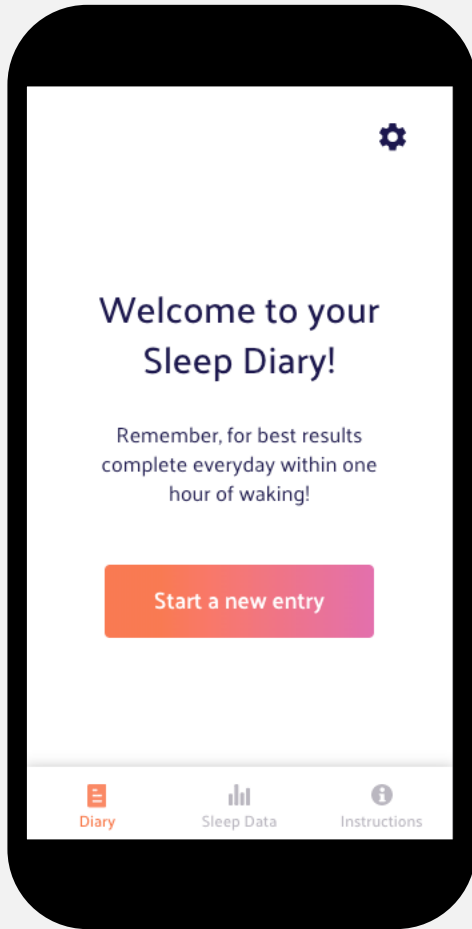
6. Limit daytime sleep to 7.5 hours

7. Wind-down an hour before bed (not goal-directed)


8. Wear PAP mask nightly.

9. Deal with the day's emotional business in the evening *before* getting into bed (lists, journaling etc.)

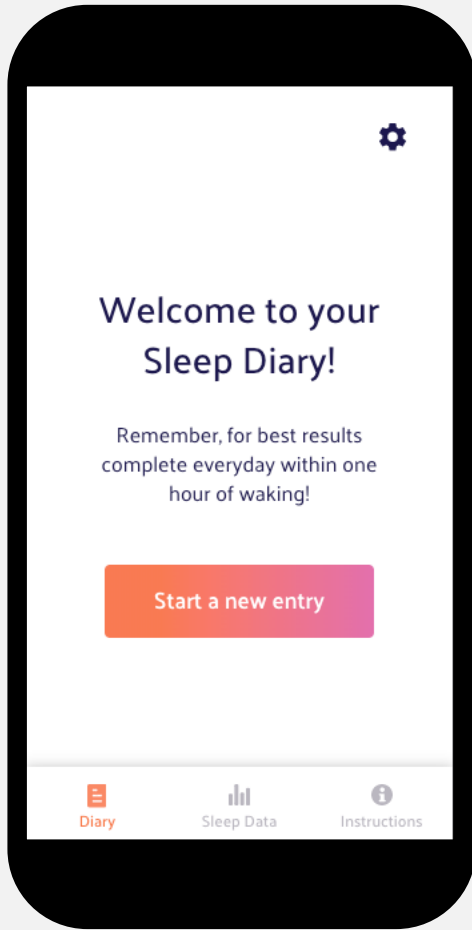
# Two weeks later



[consensusleepdiary.com](https://consensusleepdiary.com)

- Pete is falling asleep more quickly (25 minutes on average) and is sleeping for 91% of the time they are in bed (7h 10m on average)
  - When signs of sleepiness:
    - 1) falling asleep in under 10 minutes on average
    - 2) sleeping for more than 90% of the time in bed
- 
- Extend time-in-bed 15 minutes per week until it resolves

# Two weeks later



[consensusleepdiary.com](https://consensusleepdiary.com)

- Pete continues to fall asleep in a normal amount of time (26 minutes on average) and is sleeping for 89% of the time they are in bed (7h 25m on average)
  - He develops a relapse prevention plan which includes continuing to monitor for 4 more weeks to check for extension, but CBT-I is done
- He continues to use PAP which effectively eliminates his apnea events
- He feels more energetic during the day and feels less pain

# Insomnia

- *Trying* to get more sleep is counter-productive.
  - *More* time in bed can be sleep-disruptive
  - Can cause an association between your bed and being awake, if you spend time “trying” to sleep unsuccessfully
  - Increases *pressure* to sleep – anxiety (e.g., “sleep to live, not live to sleep”)

Instead, we want to consider:

- Enacting an effective plan for wind-down and fatigue, and managing occasional sleep loss relating to the job
- Putting some faith into our sleep system and working with it
  - Trying to find a fairly regular rise time
  - Allow your natural recovery system to work by limiting time in bed to what you can sleep on a regular basis (and stay active)

# Dr. Carney's Tips

## 1. Assess if you have signs of apnea

- Snoring loudly and persistently
- Tired - actually sleepy (difficult staying awake)
- Observed apneas
- High Blood Pressure
- BMI over 35 kg/m<sup>2</sup>?
- Age: Older than 50 years old?
- Neck size larger than 40 cm (17"+ for ♂ or 16" for ♀)
- Gender: Male?



3 or more, talk to  
your doctor

Chung et al. (2008)

## 2. Assess if you are sleepy

- You fall asleep unintentionally.
- You consistently fall asleep in less than 10 minutes of lying down.
- You need a nap each day.

If you are sleepy, and are not  
sure why, talk to your doctor.



Napping



Exercise

Get assessed for the cause; treat it.  
If it relates to shift, try strategies

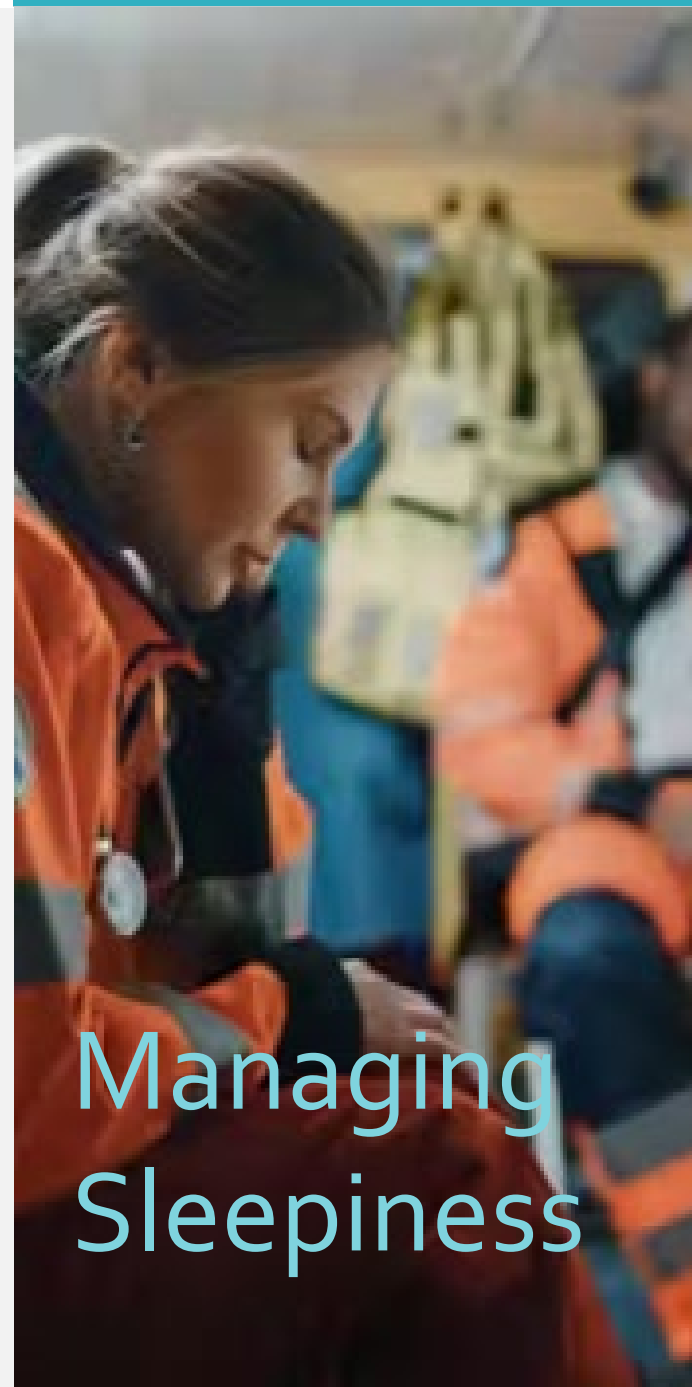


Light



Stimulants

Plan for safety on commute



# Managing Sleepiness

# Treatments for Shift Work Disorder

- We don't have robust interventions (e.g, Crowther et al., 2021)
- Planned or prescribed sleep schedules\*.
- Specifically dosed and timed light exposure (variable success).
- Hypnotic medications may be indicated to promote or improve daytime sleep, but risk/benefit ratio discussion
- Stimulants may be indicated to improve alertness, but risk/benefit ratio discussion
- One option is to focus on safety (for sleepiness) and minimizing harm (increasing health behaviours and \*trying to stabilize sleep)

Morgenthaler et al., 2007

# Shiftwork Tips

- Safety and minimizing harm
  1. Well-lit environment/activate during shift
  2. Physical activity + eat healthy during shift (help with resultant weight gain and ↑ cholesterol)
  3. Use naps for safety and to alleviate sleepiness
  4. Derive a compromise schedule to minimize large shifts in sleep, eating and light
- Below: 10-1 am (3 hours jetlag bedtime)

SCHEDULE	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
WORK SHIFT	15:00-23:00	15:00-23:00	15:00-23:00	OFF	07:00-15:00	07:00-15:00	07:00-15:00
CURRENT	24:00-08:30	01:00-08:30	01:00-09:30	01:00-10:30	23:00-06:00	22:30-06:15	22:00-05:45
PROPOSED	24:00-07:00	24:00-07:00	24:00-07:00	23:30-06:30	23:00-06:00	23:00-06:00	23:00-06:00

Eliminates jetlag: 11-12 am and 6-7 am

# What is healthy sleep?

1. Sleep 85-90% of time you are in bed
2. Feel sleepy just before bedtime
3. Fall asleep within 30 minutes and spend less than 30 minutes awake during the night (<3 pees)
  - wakefulness is part of sleep
4. Feel relatively refreshed within an hour of waking
5. You don't fall asleep (or need a nap) during the day

If you are a good sleeper and want to keep it that way:

1. maintain a regular routine
2. daily regular physical activity and safe sunlight exposure
3. find ways to manage stress that works well for you

# Sleep Solutions Summary

- Poor sleep is common in public safety jobs, but manageable, and in the case of sleep disorders-treatable
- If you have chronic insomnia, Cognitive Behaviour Therapy is a brief treatment you can implement yourself with an app or book, or a provider:  
[www.researchsleep.ca/cbtimap](http://www.researchsleep.ca/cbtimap)
- If you are sleepy, talk to your doctor.
  - Sleepiness is a risk factor for chronic illness, motor vehicle and occupational accidents, and poor quality of life
- If you have risk factors for sleep apnea or are already diagnosed with sleep apnea, talk to your doctor about using PAP
- If you are have sleep difficulties with shift work, talk to your doctor

Patient resources and tailored training for health professionals:  
[drcolleencarney.com](http://drcolleencarney.com)

Free teen app [dozeapp.ca](http://dozeapp.ca) Doze: Goodnight Mind for Teens on

Free patient diary app: [consensussleepdiary.com](http://consensussleepdiary.com)

Insomnia resources [ontariohealth.ca](http://ontariohealth.ca) and [researchsleep.ca](http://researchsleep.ca)



# THANK YOU