VCH Safety Summit: Reflections on COVID

2021 JOHSC conference

September 15, 2021

Virtual experience
Why do we sleep?
Why do we sleep?

Inactivity Theory

Siegel, 2011
Why do we sleep?

Energy Conservation Theory

Horne, 1977
Why do we sleep?

Replenishing brain glycogen levels

Mergenthaler et al., 2013
Why do we sleep?

Brain Plasticity Theory

Frank, 2001
Kurdziel, 2019
How many hours do Canadians sleep each night?

**Figure 1.** Mean hours of sleep per night for Canadians aged 18-64 from 2007-2013 (†p < 0.05)

Chaput et al., 2017
50% Have trouble falling/staying asleep

44% Don’t find their sleep refreshing

Chaput et al., 2017
We have been losing sleep

Figure 2. Mean hours of sleep per night for US adults aged ≥ 18y in 1985, 1990, and 2012 (p 2012 versus 1985 < 0.001)

Ford et al., 2015
We have been losing sleep

< 6 hours

Ford et al., 2015
What happens if we don’t sleep enough?

Short Term

Increased stress responsivity
Mood disorders
Cognitive, memory, and performance deficits
Sleepiness

Medic et al., 2017
What happens if we don’t sleep enough?

Long Term

Hypertension (high blood pressure)
Cardiovascular disease
Weight related issues
Type 2 diabetes
Colorectal cancer

Medic et al., 2017
Moderate sleep deprivation produces impairments in cognitive and motor performance equivalent to legally prescribed levels of alcohol intoxication

A Williamson and A. Feyer
Sleep Deprivation vs Cognitive & Motor Performance

- 0.05% BAC: Being awake for over 17 hours
- 0.10% BAC: Being awake for over 24 hours

Williamson and Feyer, 2017
More injuries at work

Figure 3. Estimated annual injury incidence per 100 workers by usual daily sleep duration

Lombardi et al., 2010
How can we get more higher quality sleep?
Decrease screen time before bed
Try to go to sleep at the same time each night
Exercise regularly

Yang et al., 2012
Stay away from caffeine late in the day
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https://observablehq.com/@elibryan/caffeine-simulator
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Now go on and sleep!
Thank You