



Previously  **MyHealth** | CENTRE

The text "Previously" is in a dark grey sans-serif font. To its right is a colorful logo consisting of three curved, overlapping shapes in green, yellow, and blue. To the right of this logo is the text "MyHealth" in a bold, dark blue sans-serif font, followed by a vertical line and the word "CENTRE" in a dark grey sans-serif font.

The webinar will begin soon...

# Accredited with Exemplary Standing

WELL Health Diagnostic Centres are Ontario's only IHFs that are Accredited with Exemplary Standing:

- ✓ Shorter wait times for patients.
- ✓ Faster report turnaround for referring healthcare providers.
- ✓ Highest standard of infection prevention, cleanliness, safety and comfort in our facilities.



# More than 20,000 Ontario healthcare providers refer their patients to WELL Health Diagnostic Centres for:

## CARDIOLOGY

- Cardiology Consultations
- Echocardiography
- Electrocardiography
- Exercise Stress Testing
- Holter Monitoring
- Nuclear Cardiology
- Pulmonary Function Testing
- Stress Echocardiography
- Vascular Ultrasound

## RADIOLOGY & OTHER DIAGNOSTIC SERVICES

- Bone Mineral Density
- Mammography & OBSP
- Nuclear Medicine
- PET/CT
- Pain Injections
- Respirology Consultations
- **Sleep Consultations & Studies**
- Ultrasound
- X-ray (Walk-in Service)

# Our Sleep Centre

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Our sleep centre in **Brampton at 480 Chrysler Drive** specializes in consultations and studies to treat:

- ✓ Chronic fatigue
- ✓ Insomnia
- ✓ Morning headaches
- ✓ Excessive daytime sleepiness
- ✓ Non-restorative sleep
- ✓ Restless legs
- ✓ Sleep Apnea
- ✓ Snoring



# Webinar: Sleep Disorders



## Welcome Dr. Marc Sherkin!

- Royal College Fellow in Internal Medicine and Respiriology and a specialist in Sleep Medicine.
- Founder of the Humber River Hospital Sleep Disorders Lab.
- Medical Director of the Hospital Alliance Group and the Sleep Clinics at Ross Memorial Hospital and Stevenson Memorial Hospital.

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# Seasonal Time Changes

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SURVEY



ENTER

## Methodology

The AASM commissioned an online survey of 2,003 U.S. adults which took place Sept. 17-20, 2019 and 2,007 U.S. adults between July 17-20, 2020. The margin of error is +/- 2 percentage points with a confidence interval of 95 percent.

# Conflict of Interest Disclosures for Speakers

1. I do not have any relationships with any entities **producing, marketing, re-selling, or distributing** health care goods or services consumed by, or used on, patients, **OR**
2. I have the following relationships with entities **producing, marketing, re-selling, or distributing** health care goods or services consumed by, or used on, patients.

Type of Potential Conflict	Details of Potential Conflict
Grant/Research Support	
Consultant	
Speakers' Bureaus	
Financial support	
Other	

3. The material presented in this lecture has no relationship with any of these potential conflicts, **OR**
4. This talk presents material that is related to one or more of these potential conflicts, and the following objective references are provided as support for this lecture:

- 1.
- 2.
- 3.



# Start of Daylight Saving Time

More than half (**55%**) of U.S. adults feel **extremely** or **somewhat tired** after “springing forward” to **daylight saving time**.



**AASM** American Academy of  
SLEEP MEDICINE™

Sleep Prioritization  
Survey

# End of Daylight Saving Time

When asked what they will do with the “extra” hour when clocks move back an hour for daylight saving time:

- **41%** of adults plan to use the “extra” hour to sleep.

## HOW ADULTS WILL SPEND THE EXTRA HOUR WHEN DAYLIGHT SAVING TIME ENDS:



**AASM** American Academy of  
SLEEP MEDICINE™

Sleep Prioritization  
Survey  
2019

# End of Daylight Saving Time (cont.)

- **13%** of adults plan to spend the “**extra**” hour with friends and family.
- **13%** of adults will enjoy a relaxing activity.
- **6%** will spend the hour doing chores or errands.
- **5%** will spend the “**extra**” hour working or studying.
- **4%** plan on spending the hour doing a hobby.

# Seasonal Time Changes – Position Statement

AASM issued a position statement in October 2020, calling for the **elimination** of **seasonal time changes** in support of a fixed, **standard time**, which more closely aligns with the daily rhythms of the body's internal clock.



# Seasonal Time Changes

**63%** of Americans support the **elimination** of seasonal time changes in favor of a national, **fixed, year-round time.**

**63% of Americans** support the **elimination of seasonal time changes.**

**Daylight Saving Time Ends Nov. 1**

**AASM**  
American Academy of SLEEP MEDICINE™  
Sleep Prioritization Survey  
2020

The infographic features a circular photograph of a smiling man and a young child with curly hair. The background is a dark blue gradient with white and orange text. The AASM logo is in the top right corner, and the survey title and year are below it. The main statistic is prominently displayed in the center, and the date of the DST change is noted in a white circle at the bottom left.

# Daylight Saving Time – Stats and Studies

Studies regarding the sleep **health effects** of DST show:

- Moving into or out of DST has adverse effects on sleep/wake patterns that last about **five to seven days**.
- The effects of changing to DST are probably most notable for those who enter the change with **insufficient sleep**.



**NEGATIVE EFFECTS CAUSED BY LOSING AN HOUR OF SLEEP CAN LAST 5-7 DAYS:**



**FATIGUE**



**POOR  
PRODUCTIVITY**



**MOOD  
PROBLEMS**



**INCREASED  
ACCIDENT RISK**

# End of Daylight Saving Time – Tips

Tips to maximize the benefits of the **fall time change**:

- Wait to change your clocks until it is time to get ready for bed
- Go to bed at your usual bedtime
- Set your clocks back one hour
- Wake up at your standard wake time
- Take note of how much better you feel after an extra hour of sleep
- Continue to go to bed each night at the earlier bedtime



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# SleepEducation.org

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# COVID-19 Impact on Sleep

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SURVEY



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# COVID-19 Impact on Child/Teen Sleep

More than a third (**35%**) of parents say that remote or **online learning** due to the COVID-19 pandemic has affected their children's nightly **amount of sleep**.

- **17%** of parents report that their children are getting **more** nightly sleep
- **18%** of parents say their children are getting **less** nightly sleep



# COVID-19 Impact on Child/Teen Sleep

**38%** of parents report that online/remote learning due to COVID-19 has affected their child's/teen's **nightly bedtime.**

- Almost a quarter of parents (**24%**) say that remote learning has made their child's/teen's bedtime **less consistent**



# COVID-19 Impact on Child/Teen Sleep

**38%** of parents report an impact on their child's/children's **waketime**.

- **20%** say that their children have **earlier** waketimes
- **19%** say that their children have **later** waketimes



# COVID-19 Impact on Adult Sleep

About one in five Americans (**19%**) are getting **less** nightly sleep during the COVID-19 pandemic.

- **20%** of fathers are getting **more** nightly sleep
- **27%** of mothers are getting **less** nightly sleep



# COVID-19 Impact on Adult Sleep

One in five Americans (**20%**) say it is **harder** for them to **fall asleep** during the COVID-19 pandemic, and **22%** say that their **sleep quality is worse** than before the pandemic.



**AASM** American Academy of  
SLEEP MEDICINE™

Sleep Prioritization  
Survey  
2020



# COVID-19 Impact on Adult Sleep

More than **one in five** Americans (21%) are experiencing more **disturbing dreams** during the COVID-19 pandemic.



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# SleepEducation.org

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# Sleep and Aging



# Prioritize Sleep ↔ Age Well

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Older adults need about the same amount of sleep as younger adults — **seven or more** hours of sleep per night.

When we get older:

Tend to feel sleepy earlier in  
and wake earlier as sleeping  
hours shift

Lose the ability to have deep,  
restful sleep

May be troubled by bouts of  
wakefulness, bathroom trips,  
and other interruptions

Increasingly at risk for  
disturbances that cause poor  
sleep and low brain oxygen

# Why does sleep change as we age?



## The sleep-wake cycle change

- Drop in “deep” sleep

## Hormonal changes:

- May produce less melatonin, the hormone that promotes sleep.
- May be more sensitive to – and awaken due to — changes in environment, such as noise.

## Lifestyle changes:

- Including smoking and drinking alcohol or caffeine

## Medications

# Medical Conditions that Interfere with Sleep

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Anxiety/Depression

Arthritis

Chronic Pain

Heart Disease

Incontinence

Indigestion

Lung Diseases  
(asthma, COPD)

Physical  
Disability

Parkinson's  
Disease

Psychiatric  
Illness

\*Medications used to treat these may interfere with sleep

# Common Sleep Problems in Older Adults

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- As many as 50% of older adults complain about difficulty starting or maintaining sleep.
- Sleep disorders like restless legs syndrome, insomnia, sleep apnea, and REM sleep behavior disorder are prominent within the elderly population.
- Approximately 5% of older adults have insomnia disorders, and 20% have sleep apnea syndromes.

# Sleep and Alzheimer's Disease

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- One out of eight people in the U.S. who live beyond age 55 eventually develop Alzheimer's or another form of dementia.
- People with Alzheimer's disease are prone to sleep problems, including insomnia at night and excessive sleeping during the day.
- A lack of sleep, for even one night, can increase levels of beta-amyloid in the brain – one of the main toxic proteins that are linked to Alzheimer's disease.
- Two recent studies show that lack of sleep in middle age is a strong predictor of Alzheimer's and other forms of dementia decades later.



# How can you improve your sleep?

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## Behavior Changes

- Keep a consistent sleep schedule that allows you to get at least 7 hours of sleep.
  - Establish a relaxing bedtime routine.
  - Turn off electronic devices at least 30 minutes before bedtime.
  - Don't eat a large meal before bedtime – eat a light, healthy snack.
  - Exercise regularly and maintain a healthy diet.
  - Avoid consuming caffeine in the afternoon or evening; avoid alcohol before bedtime.
  - Reduce your fluid intake before bedtime.
- 
- Use your bed only for sleep and sex.
  - Make your bedroom quiet and relaxing. Keep the room at a comfortable, cool temperature.
  - Limit bright light in the evenings.

## Environmental Changes

# How to seek help

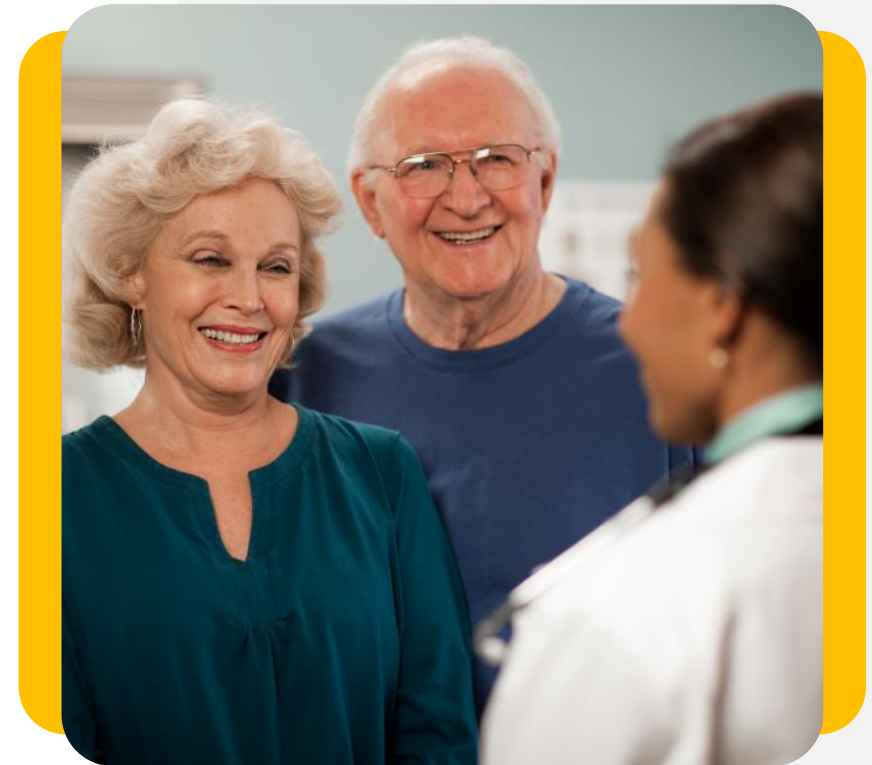
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Talk to your primary health care provider if:

- *you have persistent problems with your sleep that affect your daytime well-being.*
- *your partner notices something wrong with your breathing during sleep.*

Your primary health care provider will make an evaluation based on your signs and symptoms, an examination, and tests, and may:

- *diagnose and treat your problem*
- *refer you to a **sleep specialist** for further evaluation and treatment.*



A doctor in a white coat is shown from the chest up, holding a large, red, textured heart. A red heartbeat line is drawn across the heart and extends to the left and right edges of the frame. The background is a soft, out-of-focus grey.

# Sleep and Heart Health

# How does sleep affect your heart health?

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The American Academy of Sleep Medicine recommends that most adults need at least 7 hours of sleep each night.

During sleep, blood pressure and heart rates drop, and breathing stabilizes, reducing stress on the heart and allowing it to recover from the stress experienced during the previous day.

# The “Sleep And Heart” Connection

Poor sleep quality and sleep disruption has been linked to:

An increase in cardiometabolic risk factors such as:

- high blood pressure
- obesity
- diabetes
- atherosclerosis (artery build up)
- high rate of death among patients with heart disease.

Low oxygen levels strain the cardiovascular system:

- The heart is forced to beat faster, which results in an increase in blood pressure and irregularities of the heartbeat.
- Stress and irregularity can lead to potential heart attacks and sudden death.

# Sleep Disorders Impacting Heart Health

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## Obstructive Sleep Apnea (OSA)

Contributes to hypertension, stroke, coronary heart disease, congestive heart failure, cardiac arrhythmias and pulmonary hypertension

## Insomnia

Heart failure risk is linked to major insomnia symptoms: trouble falling asleep or staying asleep, and waking up feeling unrefreshed in the morning.

## Circadian Rhythm Sleep Disorders

Higher risks of hypertension, stroke or heart attack with chronic difficulty falling asleep/waking up during the sleep cycle or waking up too early/being unable to fall back to sleep

# Effect on high blood pressure

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During normal sleep, there is a decrease in blood pressure relative to wakefulness, allowing the heart to relax and recover from the stress of the day.

Research suggests that sleeping five hours or less a night can, over time, increase your risk of developing — or worsening — high blood pressure.

# Risk of coronary artery disease

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Coronary artery disease occurs when the blood vessels that supply blood and oxygen to the heart become narrow.

Research indicates that sleep disruption and sleep deficiency lead to chronic inflammation, which may trigger diseases like coronary artery disease, which have an inflammatory component.

Both short and long sleep durations are significantly associated with increased risk of coronary heart disease.

*Wang D, Li W, Cui X, et. al. Sleep duration and risk of coronary heart disease: A systematic review and meta-analysis of prospective cohort studies. Int J Cardiol. 2016 Sep 15;219:231-9.*



# A Summary

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Good-quality sleep decreases the work of your heart, as blood pressure and heart rate go down at night.

People who are sleep-deprived show less variability in their heart rate, meaning that instead of fluctuating normally, the heart rate usually stays elevated, which is not a good sign.

Lack of sleep can:

- Increase insulin resistance
- Increase C-Reactive protein
- Interfere with appetite regulation



*Phyllis C Zee, MD, PhD  
Director, Center for Circadian and Sleep Medicine  
Feinberg School of Medicine*

# What should you do?

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Get the appropriate amount of sleep each night (7 hours or more)

Talk to your health care provider if you have:

- Trouble falling asleep or staying asleep, or you frequently wake during the night
- A prior diagnosis of heart disease or increased risk for heart problems
- Symptoms such as snoring, witness apnea, daytime sleepiness or fatigue that can suggest an undiagnosed sleep disorder

# Obstructive Sleep Apnea (OSA)

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# What is OSA?

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**A common and seriously disruptive and dangerous sleep disorder**

*Why is it so disruptive and dangerous?*

Obstruction of the throat during sleep

***causes***

- The brain and body to become oxygen deprived
- Waking up during the night several times a night - *even hundreds of times a night in severe cases.*



# Prevalence

One-seventh of the world's adult population (*roughly one billion people!*) are estimated to have OSA.<sup>1</sup>

OSA is estimated to affect between 2-9% of adults in the United States.<sup>2</sup>



<sup>1</sup>Benjafield AV, Ayas NT, Eastwood PR, Heinzer R, Ip MSM, Morrell MJ, Nunez CM, Patel SR, Penzel T, Pepin JL et al. Estimation of the global prevalence and burden of obstructive sleep apnoea: a literature-based analysis. *Lancet Respir. Med.* 2019; 7: 687–98.

<sup>2</sup>Donovan LM, Kapur VK. Prevalence and Characteristics of Central Compared to Obstructive Sleep Apnea: Analyses from the Sleep Heart Health Study Cohort. *Sleep.* 2016 Jul 1;39(7):1353-9. doi: 10.5665/sleep.5962. PMID: 27166235; PMCID: PMC4909617.

# Risk Factors

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Large Neck Size

Middle Age

Excess Weight

Airway Abnormality

Sedation

Family History

Male

Hypertension

# Warning Signs

## Daytime Symptoms

- Daytime sleepiness and exhaustion
- Trouble concentrating, forgetfulness, mood changes, or crankiness
- Decreased sexual desire
- High blood pressure
- Gastroesophageal reflux disease (GERD)

## Nighttime Symptoms

- Snoring, tossing and turning during sleep
- Waking up suddenly and feeling like you're gasping or choking
- Waking frequently during the night to go to the bathroom
- Trouble getting up, followed by headaches in the morning

# HEALTH RISKS RELATED TO OSA

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High Blood  
Pressure

Heart  
Disease

Stroke

Type 2  
Diabetes

Depression

Risk of  
Death



# OSA Evaluation

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Your doctor will:

- Make a judgement based on your signs and symptoms, an exam, and tests.
- Will likely refer you to a sleep specialist in a sleep center for further evaluation.

# Diagnosing OSA

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*Sleep apnea can be diagnosed by a sleep doctor at an AASM-accredited sleep center.*

Diagnosis may require:

- Sleep evaluation
- Physical exam
- Overnight sleep study
- Home sleep apnea test



Find an AASM-Accredited Sleep Disorders Center

# Treating OSA

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*Treating sleep apnea restores healthy sleep, improves quality of life and decreases health risks.*



- Lifestyle changes
- Weight loss
- CPAP therapy
- Positional therapy
- Oral appliance therapy
- Surgery
- Cognitive behavioral therapy

# Questions & Answers

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- Access Dr. Sherkin's presentation slides at: [WELLdiagnostics.ca/Sleep-Consultation-Study](https://WELLdiagnostics.ca/Sleep-Consultation-Study)
- Learn more about our Sleep Centre at: [WELLdiagnostics.ca/Brampton-Sleep](https://WELLdiagnostics.ca/Brampton-Sleep)
- Want to watch the webinar again or share it? **We'll e-mail you a recorded copy.**
- Additional questions can be emailed to: [info@welldiagnostics.ca](mailto:info@welldiagnostics.ca)