SMOKING AND SLEEP

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TOPICS COVERED

- What is sleep?
- What are sleep disorders?

- Smoking effect on sleep
- Abstinence effect on sleep

WHAT IS SLEEP?

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HYPNOS (SOMNUS)

- Hypnos
  - God of sleep
- Brother of Thanatos
  - God of Death
- His father (god of dark)
- His mother (god of night)
- His sons (bringers of dreams)
  - Morpheus (people)
  - Icelus (animals)
  - Phantasus (inanimate things)

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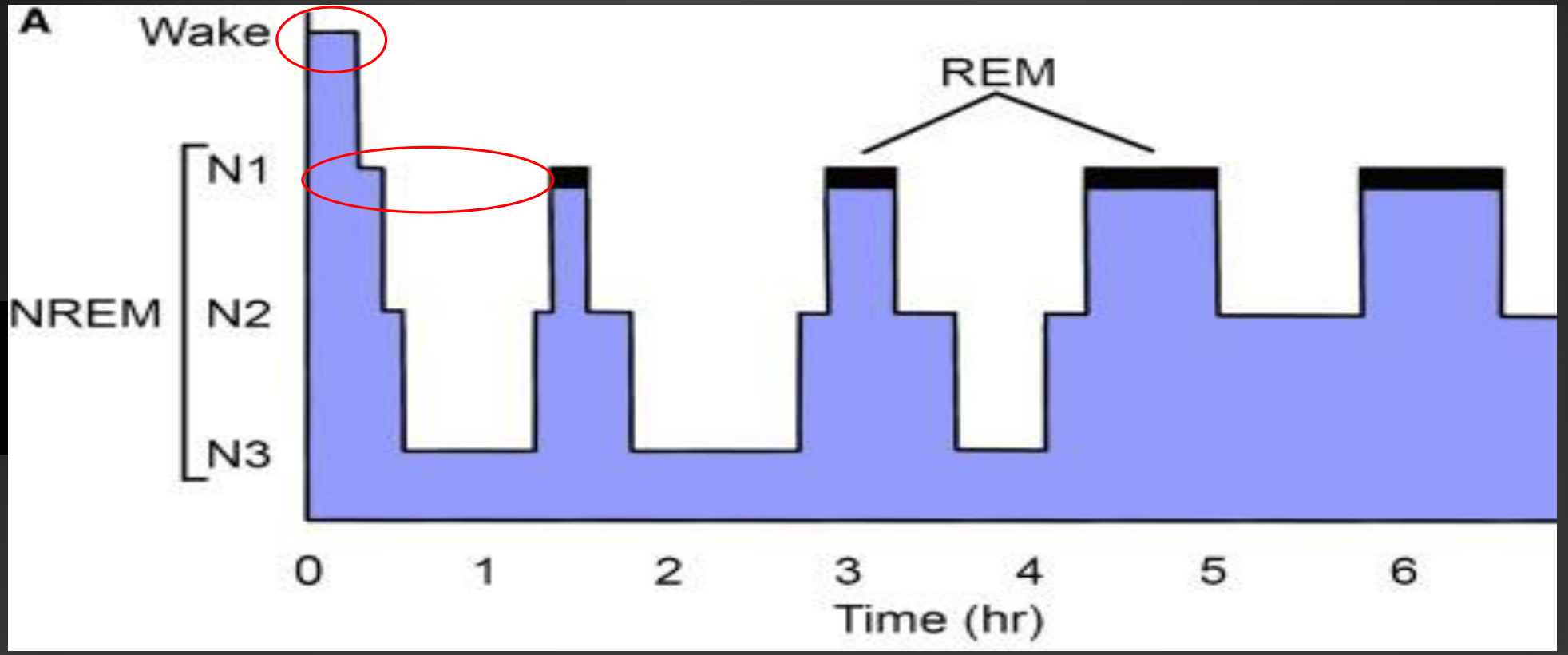
CAVE DWELLERS

REM/NREM CYCLES



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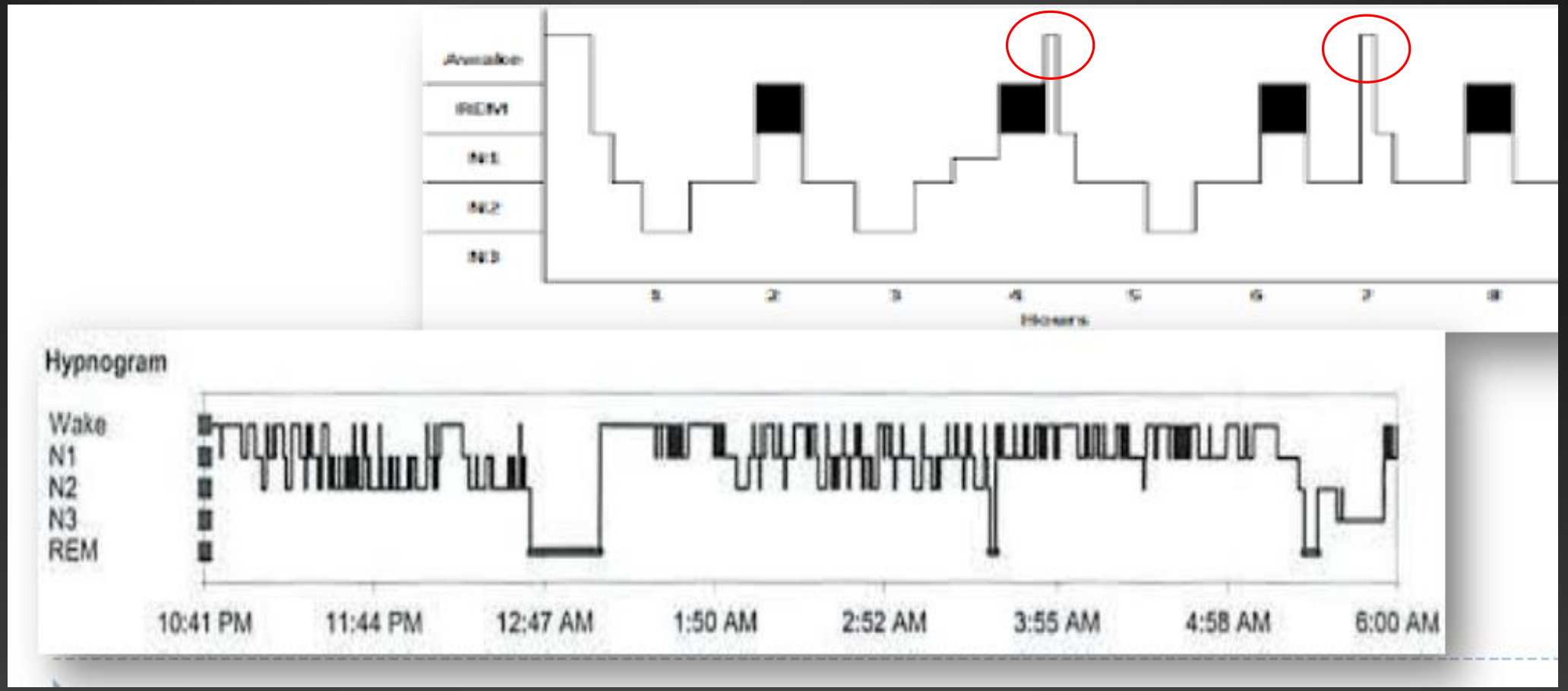
SLEEP HYPNOGRAM



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WHY WE SLEEP?

- Sleep is evolutionary preserved

- Sleep deprivation harms

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FUNCTIONS OF SLEEP

- Development
- Energy conservation
- Brain waste clearance
- Immune function
- Cognition
- Performance
- Vigilance
- Psychological state

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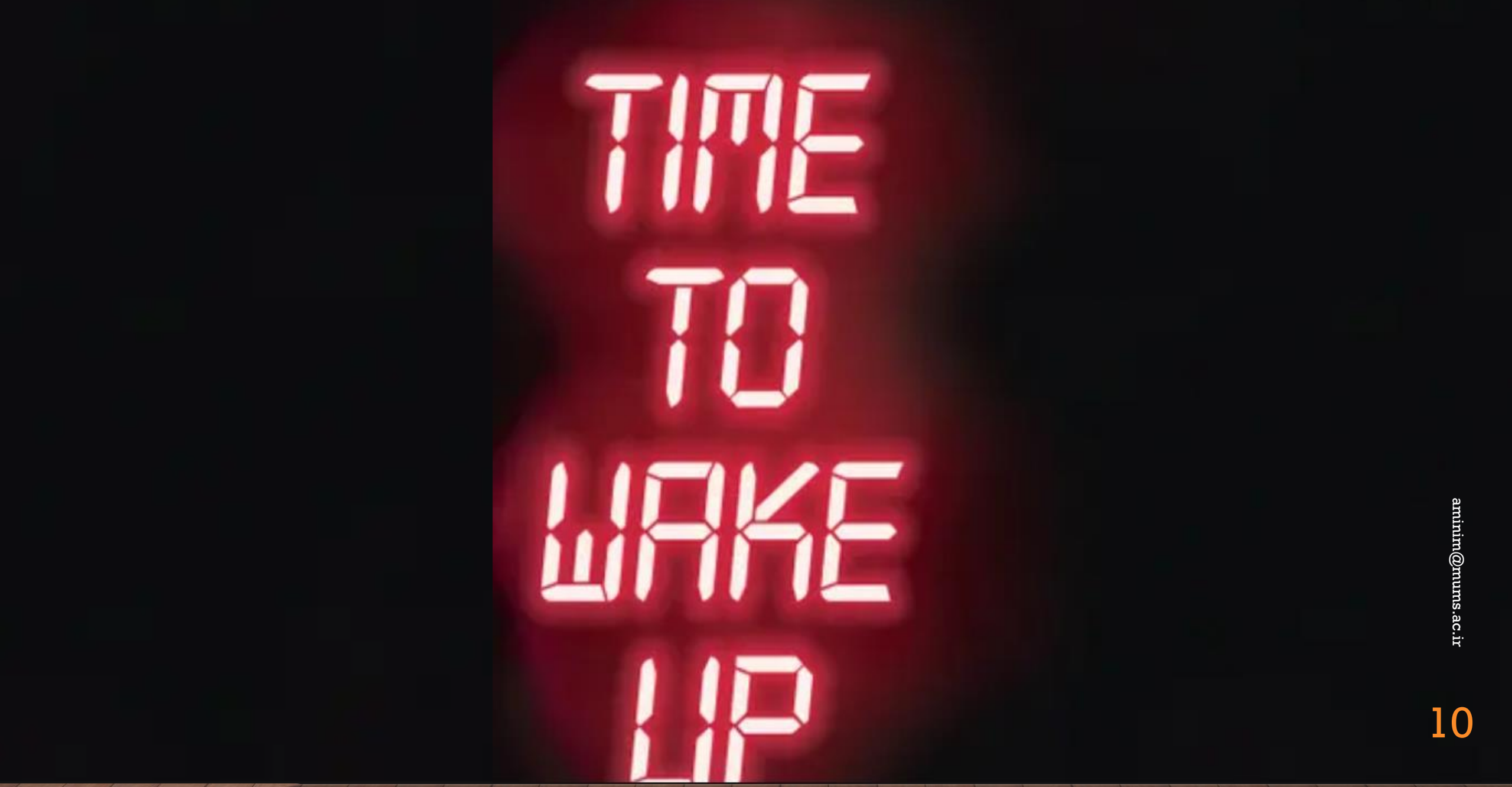

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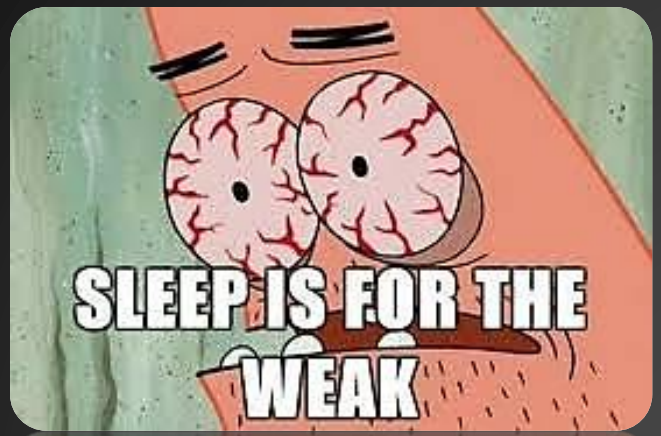
SLEEP IS FOR THE
WEAK

Alarm
6:00AM
Alarm
6:02AM
Alarm
6:30AM

SLEEP DEBT
SLEEP DEBT
SLEEP DEBT
SLEEP DEBT

IR-MCI LTE
23:57
40%
Edit
Alarm
07:00
Alarm
07:05
Alarm
07:10
Alarm
07:15
Alarm
07:20
Alarm
World Clock
Alarm
Stopwatch
Timer

GLOBAL COST OF SLEEP DEPRIVATION

- US 400 billion a year
- Japan 138 billion
- Germany 60 billion
- UK 50 billion
- Canada 21 billion

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World Sleep Day

Hosted by World Sleep Society

MARCH 18, 2022

QUALITY SLEEP | SOUND MIND | HAPPY WORLD

Year	Date	Slogan
2008	14 March	'Sleep well, live fully awake'[6]
2009	20 March	'Drive alert, arrive safe'[7]
2010	19 March	'Sleep Well, Stay Healthy'[8]
2011	18 March	'Sleep Well, Grow Healthy'[9]
2012	16 March	'Breathe Easily, Sleep Well'[10]
2013	15 March	'Good Sleep, Healthy Aging'[10]
2014	14 March	'Restful Sleep, Easy Breathing, Healthy Body'[10]
2015	13 March	'When sleep is sound, health and happiness abound'
2016	18 March	'Good Sleep is a Reachable Dream'
2017	17 March	'Sleep Soundly, Nurture Life'
2018	16 March	'Join the Sleep World, Preserve Your Rhythms to Enjoy Life'
2019	15 March	'Healthy Sleep, Healthy Aging'
2020	13 March	'Better Sleep, Better Life, Better Planet'[11]
2021	19 March	'Regular Sleep, Healthy Future'[12]

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MARCH 18,2022
دانشگاه علوم پزشکی مشهد برگزار می‌ک
همایش روز جهانی خواب
کمپین حضوری در مجتمع تجاری الماس ش
با حضور متخصصین حوزه خواب
۲۶، ۲۷ و ۲۸ اسفند
صبح و عصر
I SLEEP
روز جهانی خواب
World sleep day

پویش ملّی خواب ناب
• اگه موقع خواب مدام پاهات
دچار پـــرش میشه و بی‌قراره
• اگه حـــــس می‌کنی خوابت
اونجـوری که باید و شاید نیست...
به غـــــرفه ما سر بزن و از
متخصصین خـــــواب بپرس
ما اونجا راهنـمایی میکنیم

پویش خواب ناب
خوابی آسوده برای نیل به آینده ای بهتر
با سرپرستی دکتر مهتاز امینی
(متخصص داخلی و فوق تخصص و رئیس بخش ریه
و کلینیک خواب بیمارستان امام رضا(ع) مشهد)
با برنامه‌های:
آموزش اصول درست خوابیدن
تغذیه مناسب برای خواب

hypertension burden aha - Goog | Iran | | Mail - AminiM@mums.ac.ir
worldsleepday.org/iran

Iran 2022: Hassan Abbassian | Mashhad university of Medical Sciences, Imam Reza Hospital, Sleep clinic

World Sleep Day | January 24, 2022

Delegate: Hassan Abbassian Affiliation: Mashhad university of Medical Sciences, Imam Reza Hospital, Sleep clinic Activity: Webinars (sleep related neurotransmitters) Location: Mashhad Date of Activity: January 19, February 23, March 9 2022 Submitted by: hassan abbassian

Iran

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Hassan Abbassian | Sleep Clinic, Imam Reza Hospital, Mashhad University of

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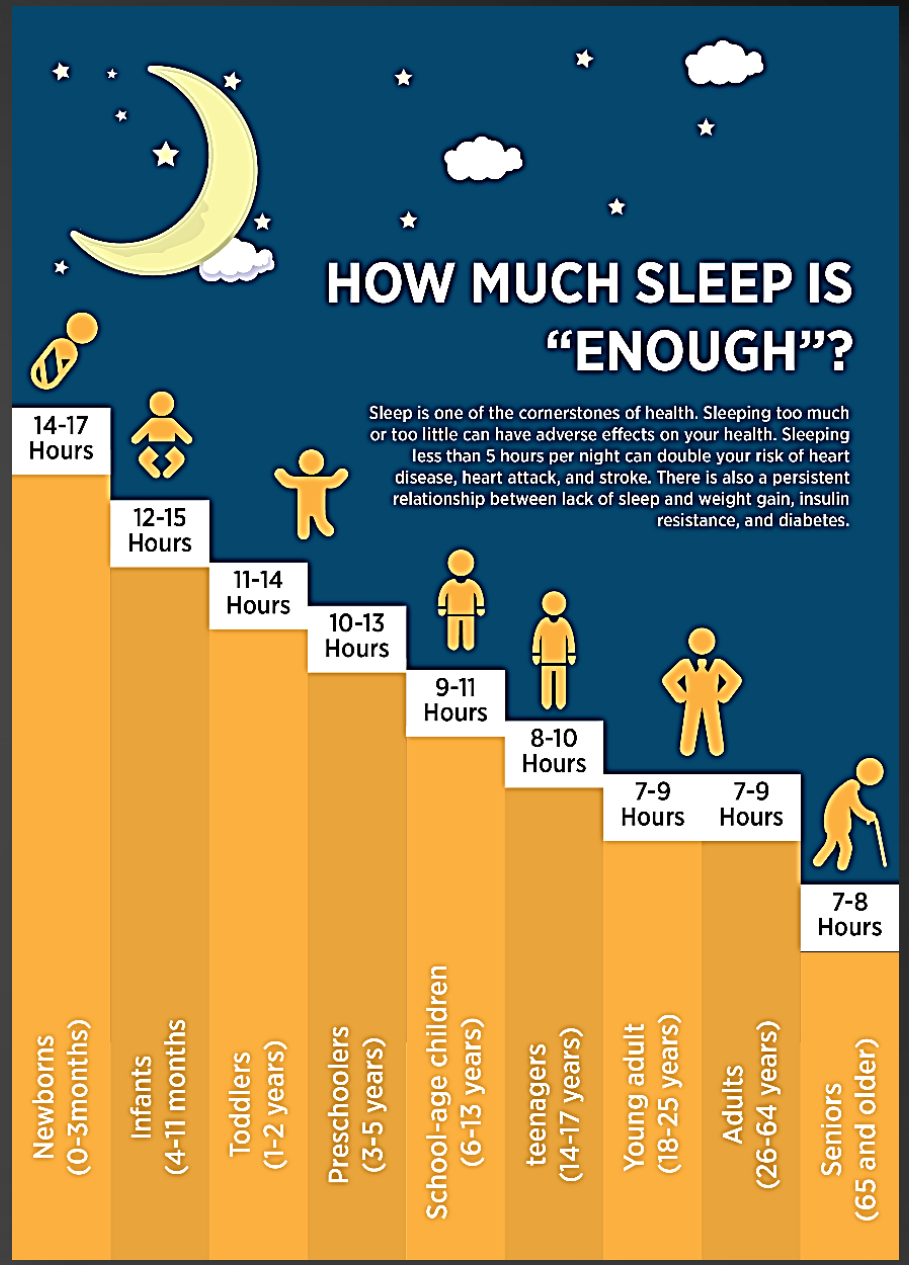
images (5).jpg
Show all
Type here to search
24°F Mostly clear
ENG
1:18 AM
1/27/2023

SLEEP ROUTINE

1. Bedtime
2. Sleep latency
3. Nap
4. Wake after sleep onset
5. Sleep duration
6. Refreshing



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SLEEP HYGIENE MEASURES

- Regular sleep schedule
- Avoid smoking/caffeine/ethanol
- Exercise in morning hours
- Expose to daytime light
- Keep technology out of bed
- Quiet, dark and cold bedroom

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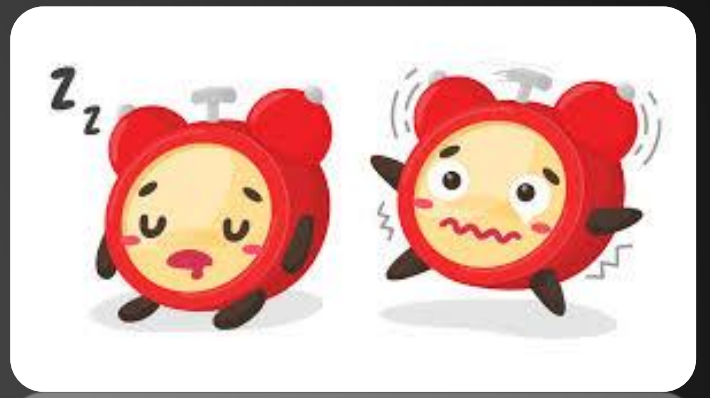
SIGNS OF SLEEP DISORDER

- Need to alarm for waking up
- Sleeping more than usual in holidays
- Need for stimulants to concentrate
- Not having a quiet and refreshing sleep
- Unusual behaviors while asleep



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SLEEP DISORDERS

1. Insomnia
2. Hypersomnia
3. Parasomnia
4. Breathing disorder
5. Movement disorder
6. Circadian disorder

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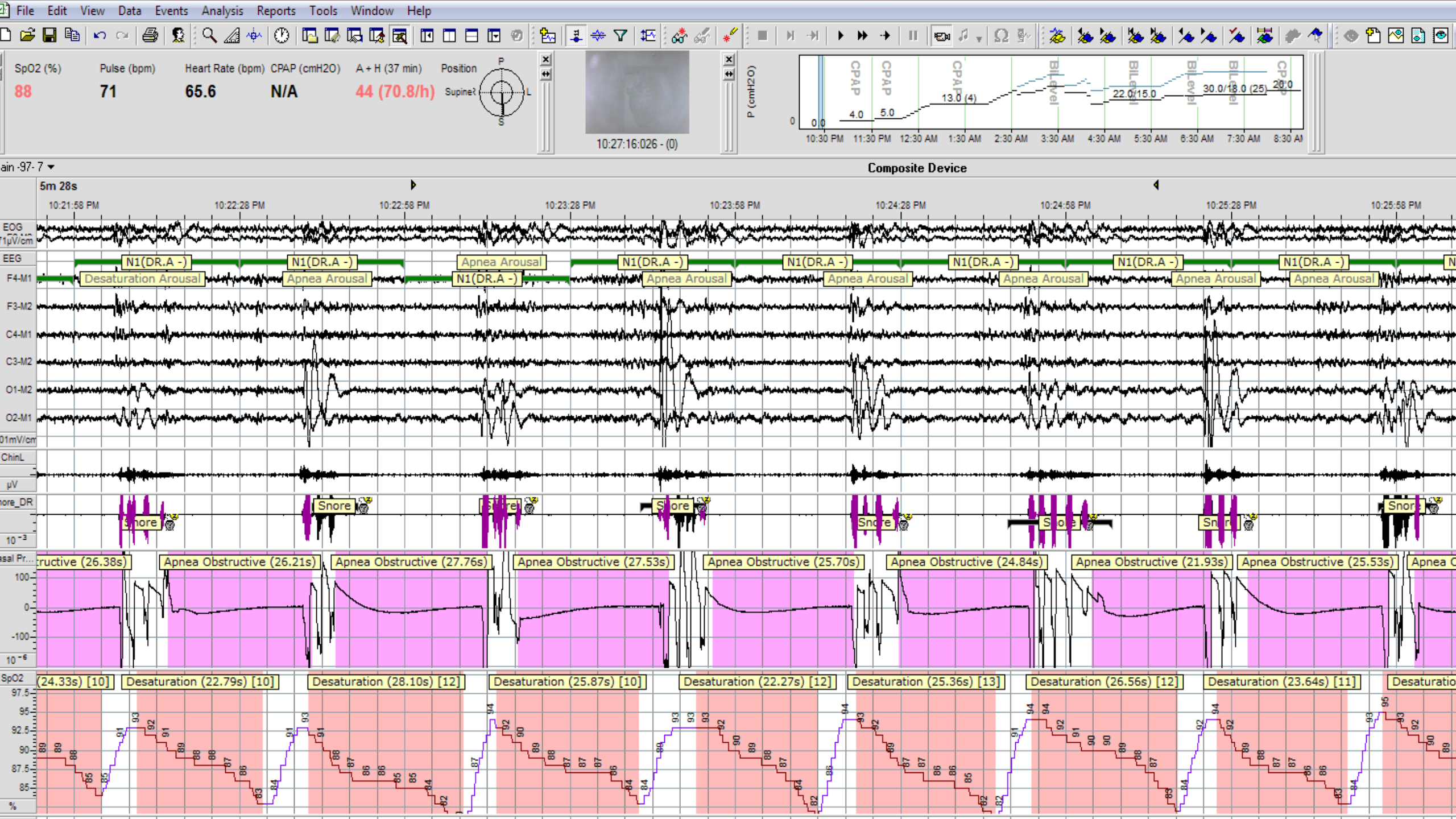
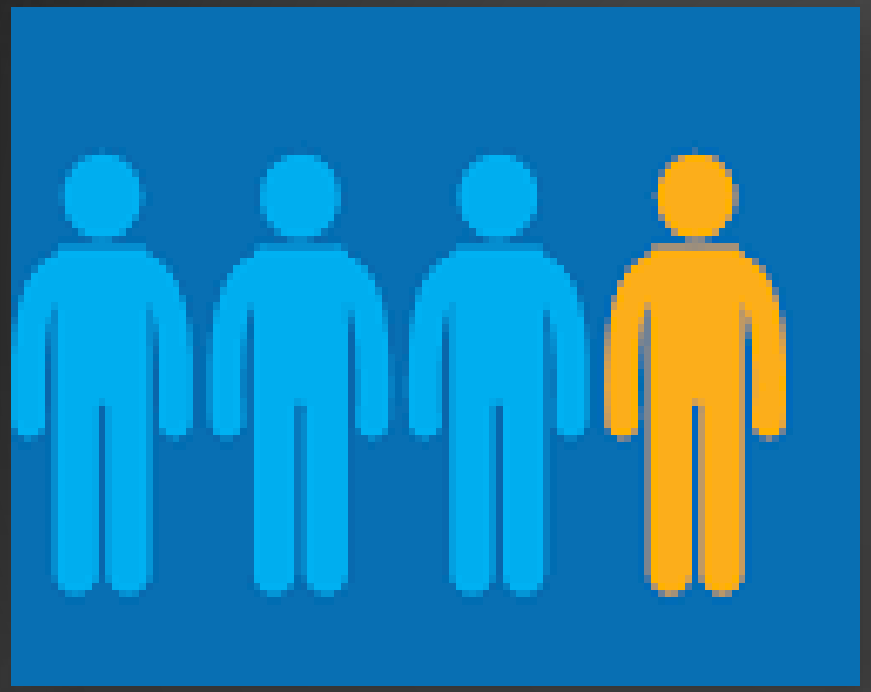

File Edit View Data Events Analysis Reports Tools Window Help
SpO2 (%) 88
Pulse (bpm) 71
Heart Rate (bpm) 65.6
CPAP (cmH2O) N/A
A + H (37 min) 44 (70.8/h)
Position
Supine?
10:27:16:026 - (0)
P (cmH2O)
CPAP 4.0
CPAP 5.0
CPAP 13.0 (4)
BiLevel 22.0/15.0
BiLevel 30.0/18.0 (25)
CPAP 20.0
10:30 PM 11:30 PM 12:30 AM 1:30 AM 2:30 AM 3:30 AM 4:30 AM 5:30 AM 6:30 AM 7:30 AM
Composite Device
5m 28s
10:21:58 PM 10:22:28 PM 10:22:58 PM 10:23:28 PM 10:23:58 PM 10:24:28 PM 10:24:58 PM 10:25:28 PM 10:25:58 PM
EOG
EEG
F4-M1
F3-M2
C4-M1
C3-M2
O1-M2
O2-M1
ChinL
N1(DR.A -)
Desaturation Arousal
Apnea Arousal
Snore
Apnea Obstructive (26.38s)
Apnea Obstructive (26.21s)
Apnea Obstructive (27.76s)
Apnea Obstructive (27.53s)
Apnea Obstructive (25.70s)
Apnea Obstructive (24.84s)
Apnea Obstructive (21.93s)
Apnea Obstructive (25.53s)
SpO2
Desaturation (24.33s) [10]
Desaturation (22.79s) [10]
Desaturation (28.10s) [12]
Desaturation (25.87s) [10]
Desaturation (22.27s) [12]
Desaturation (25.36s) [13]
Desaturation (26.56s) [12]
Desaturation (23.64s) [11]

OSA PREVALENCE



7 X ACCIDENTS!

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SMOKING EFFECT ON SLEEP

SLEEP EFFECTS

- Smokers with <15 cigarettes /day reports
  - More WASO
  - More insomnia
  - Less sleep efficiency

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GENDER AND SMOKING

- Insomnia in women
- Nightmares in men

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SMOKING AND POLYSOMNOGRAPHY

- 15 pack-year
  - SpO2<90% 2 times
  - More difficulty in
    - initiation of sleep
    - Maintenance of sleep

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SMOKING AND OSA

- 2 packs per day
  - Odds ratio of mild OSA 6.7 times
  - Odds ratio of moderate OSA 40 times
- Ex-smokers
  - Odds ratio of OSA 1.3 times

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SMOKING AND RLS

- 45% of RLS patients were smoker
- Of those 75% more than 10 cigarettes per day

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SMOKING AND CIRCADIAN

- Smoking disturbs expression of genes in lung and brain
- Even with environmental smoke exposure

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SMOKING AND SLEEPINESS

- Smokers spends
  - More time in light sleep
  - Difficulty getting up in the morning
  - Feeling sleepy throughout day
  - No matter how long they slept that night

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ABSTINENCE EFFECT ON SLEEP

WITHOUT MEDICINE

- Daily MSLT
  - Higher arousal index
  - More WASO
  - Less sleep latency
- Questionnaires
  - More irritable
  - More anxious
  - More craving

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1 WEEK QUIT

- Abstinence
  - Excessive daytime sleepiness
    - Due to nicotine withdrawal and
    - Sleep disturbance
  - Impaired mood

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ABSTINENCE WITH MEDICINE

- 3 groups of
  - NRT/ vareniclince/ placebo
- NRT/ vareniclince reports
  - More sleep disturbance
    - Especially in those with baseline sleep disorder

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NRT/ VARENICLINCE/ PLACEBO

- NRT/ vareniclince attenuated
- withdrawal symptoms unrelated to SLEEP

- Sleep proposed as a main target in abstinence period

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SLEEP IN LONG-TERM ABSTINENCE

- After 1 year quit smoking
  - Polysomnography
  - Depression questionnaire
  - Urinary cotinine
- Caused decreased REM latency and
- Increase in depression prevalence
  - Which may be controlled with nicotine

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EDWARD BERNAYS

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SMOKING AND SLEEP QUALITY

- PSQI was more affected by
  - Night time smoking
  - Awakening for smoking

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TAKE HOME MESSAGE

- Smoking increases risk of insomnia
- Can aggravate sleep apnea
- Quit smoking should be
- Abstinence can deteriorate sleep
- Sleep should be asked while quit

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THANK YOU