

Sleep Apnea: What you Need to Know

Women's Health Centre

September 10, 2015

Chris Carruthers, PhD



Goals for our Time Together

You will:

- Understand what sleep apnea is (OSA)
- Understand OSA symptoms, risk factors, diagnosis, testing, and treatment.
- Know what factors affect quality sleep.
- Make an action plan to improve your sleep.



How Important is Sleep?

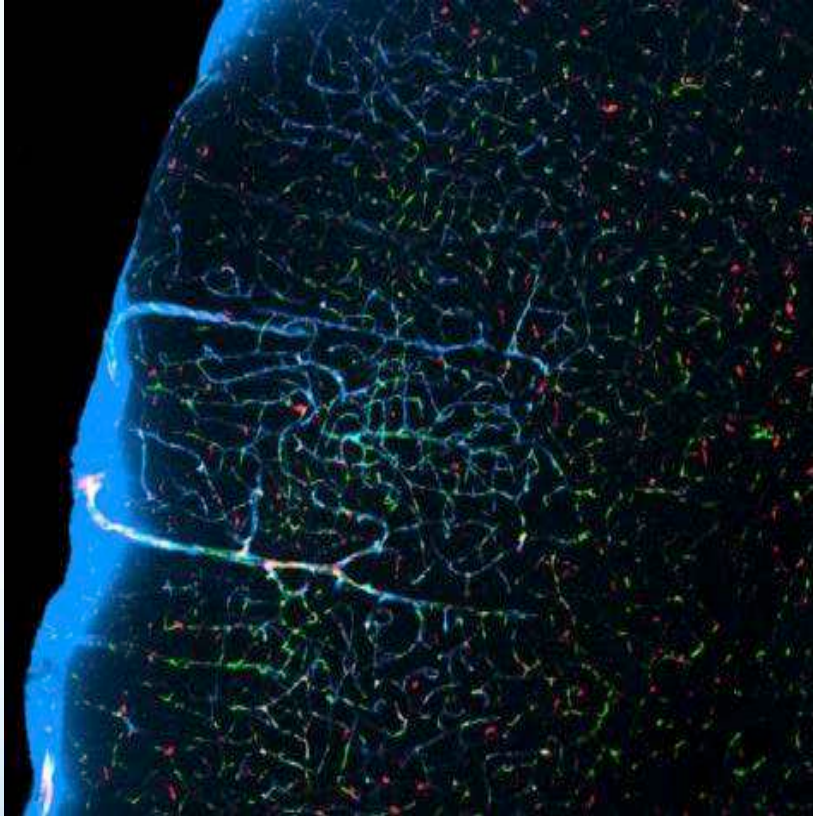


- Rats deprived of all sleep stages will survive only **THREE** weeks.

Why is Sleep Important?

- To maximize learning and decision-making.
- To enjoy a healthy weight.
- To reduce risk of illness and accidents.
- To be energized, purposeful, and fulfilled each day.

Sleep is Brainwashing



- While we sleep, fluid-filled channels of cerebrospinal fluid expand and flush out waste.

More Sleep Benefits



Undisturbed high-quality sleep is a previously unappreciated mechanism to decrease cancer risk.

Sleep Medicine Reviews, 2009

More Sleep Benefits



- Men with higher levels of the sleep hormone melatonin may be less likely to develop prostate cancer.
- Men with low melatonin levels had a fourfold increased risk for advanced disease.

European Urology, 2015

Sacred Sleep and Spirituality

- Sleep is time to slow down, notice the quality of our lives, and pay attention to the needs of the body and soul.
- Sleep is a bridge to our inner awareness.
- Sleep is the opening to our most powerful source of healing; our own spiritual strength.
- Use sleep time as a precious resource to reconnect with yourself.



What to Know About Sleep

- Sleep is NOT an expendable luxury.
- It is critical to our quality of life.
- Health changes from improving sleep are much faster than from diet and exercise.



What to Know About Sleep

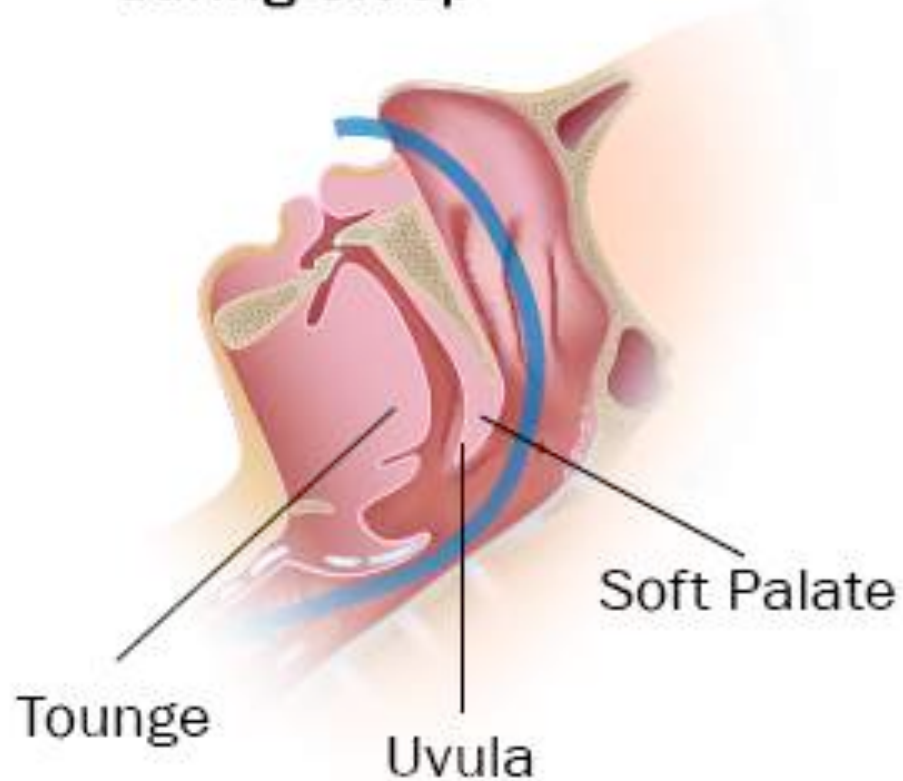
- Sleep is a partially learned behavior, so your commitment to action and practice WILL improve your sleep.
- Small actions can result in big changes.
- It may be easier than you realize!



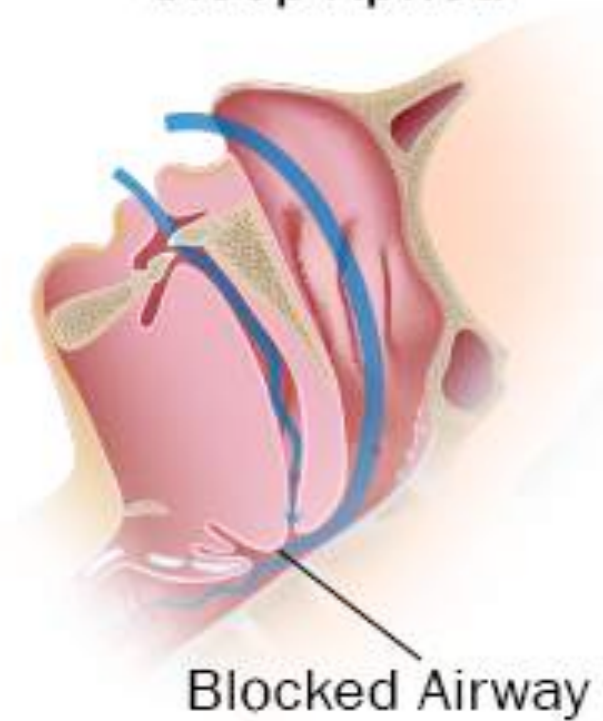
Overview and Facts



Normal Breathing during Sleep



Obstructive Sleep Apnea



SLEEP APNEA

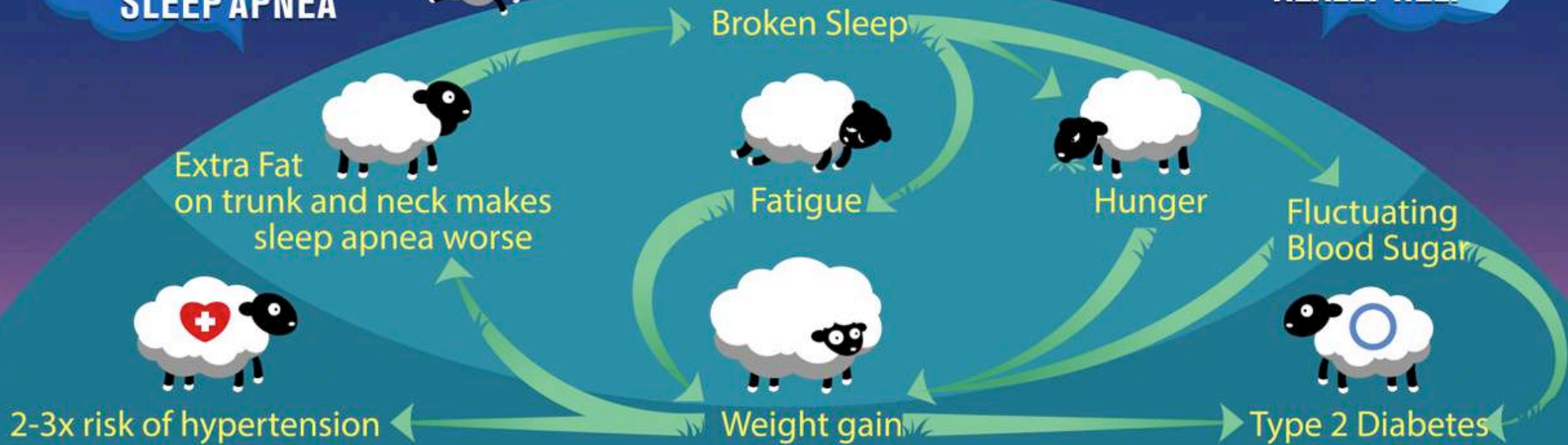
A Total *NIGHTMARE*

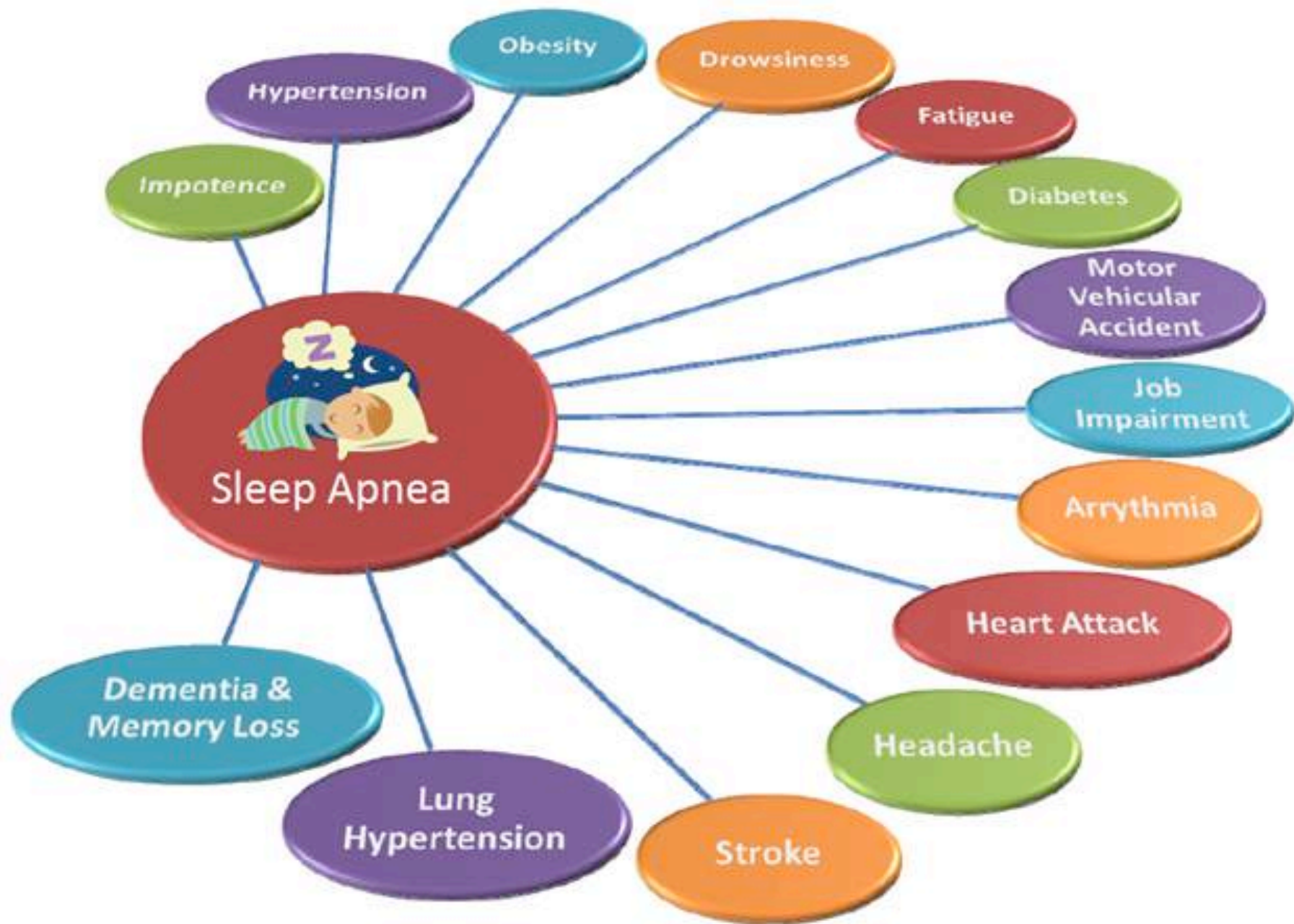
90% are
UNDIAGNOSED

70% are
OVERWEIGHT

IN THE USA
18 million have
SLEEP APNEA

WEIGHTLOSS OF
10% can
REALLY HELP





Signs and Symptoms



Nighttime symptoms



Daytime symptoms

Loud persistent snoring



Witnessed pauses in breathing



Early morning headaches



Daytime sleepiness



Choking or gasping for air



Poor concentration



Restless sleep



Irritability



Frequent visits to the bathroom

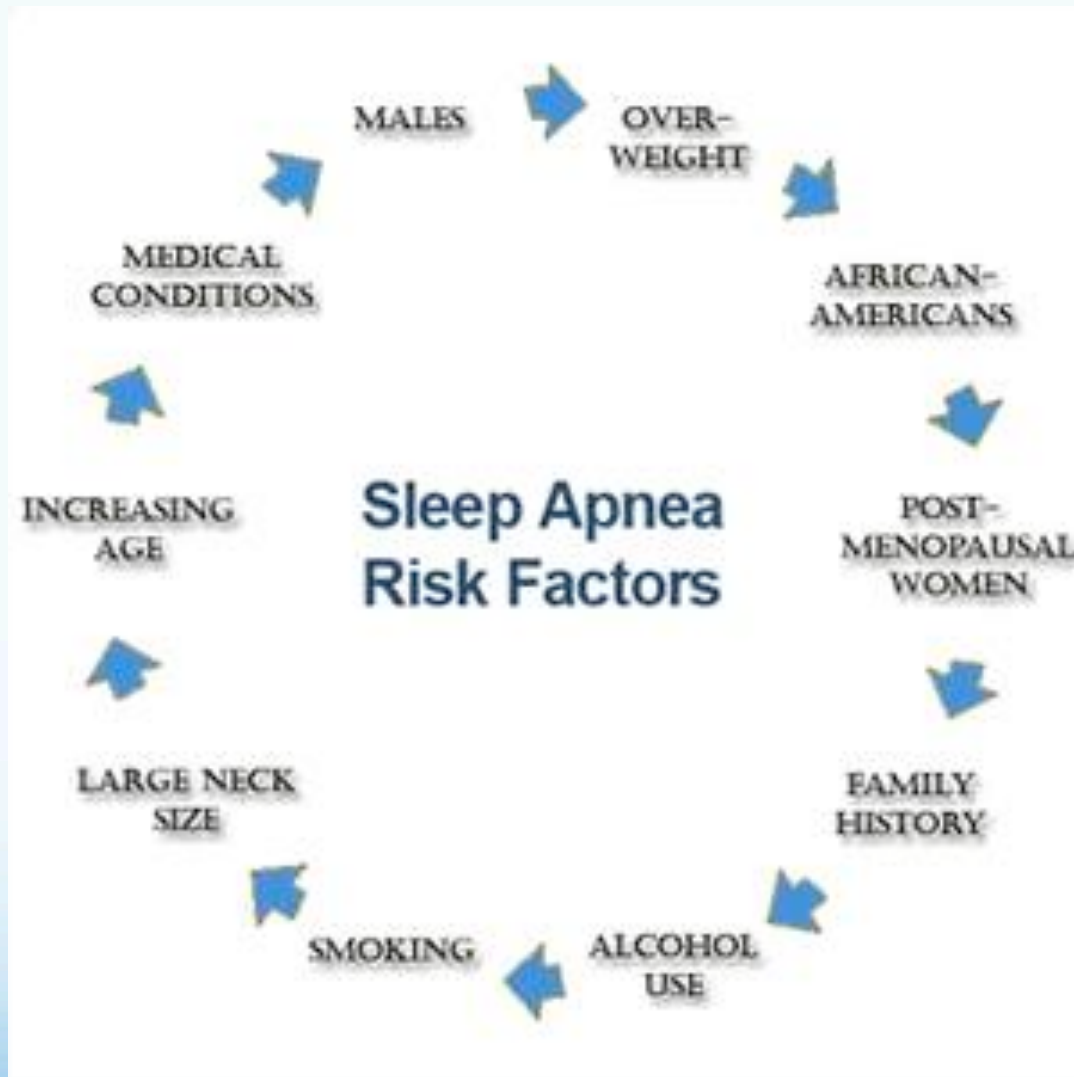


Falling asleep during routine activities



Risk Factors





Testing and Diagnosis



What is a Polysomnograph?

- You stay overnight at a sleep lab where a sleep specialist attaches electrodes and wires to your face, chest and legs and bands around your stomach and chest
- Assess brain activity, breathing, eye movements, leg movements, oxygen saturation, and more.





100% Sleep Cycle

Stage 1

Stage 2

Stage 3

Stage 4

Stage 5

4-5%

Light sleep.
Muscle activity slows down.
Occasional muscle twitching.

45-55%

Breathing pattern and heart rate slows. Slight decrease in body temperature.

4-6%

Deep sleep begins.
Brain begins to generate slow delta waves.

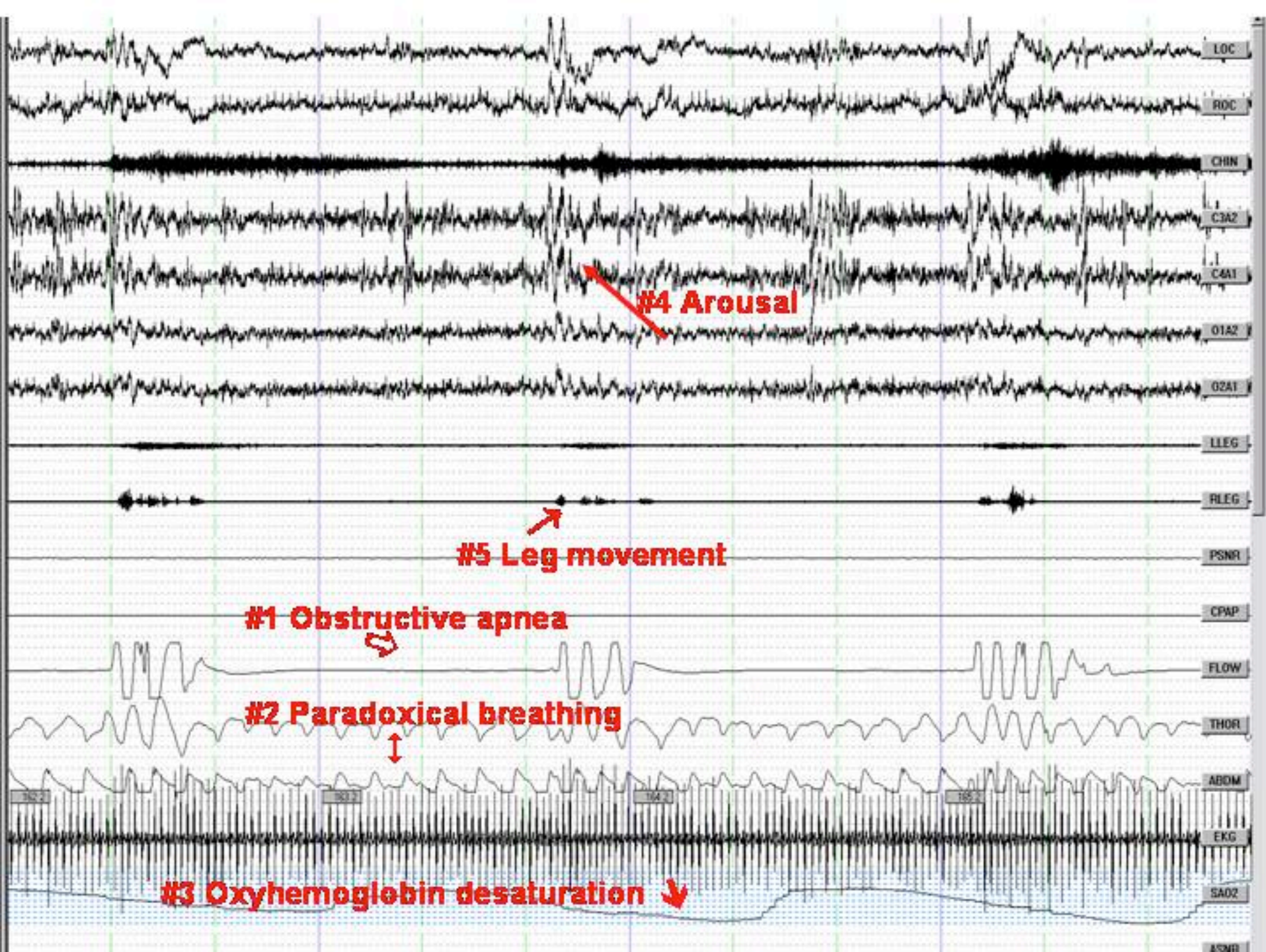
12-15%

Very deep sleep.
Rhythmic breathing.
Limited muscle activity. Brain produces delta waves.

20-25%

Rapid eye movement.
Brainwaves speed up and dreaming occurs.
Muscles relax and heart rate increases. Breathing is rapid and shallow.





Treatments

CPAP

Oral Appliances

Surgery

Weight Management

Positional Changes

Lifestyle Changes

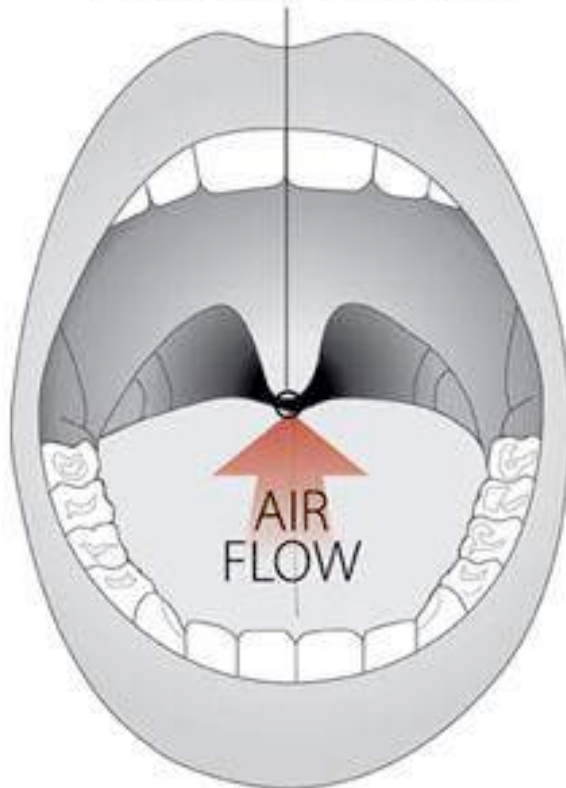






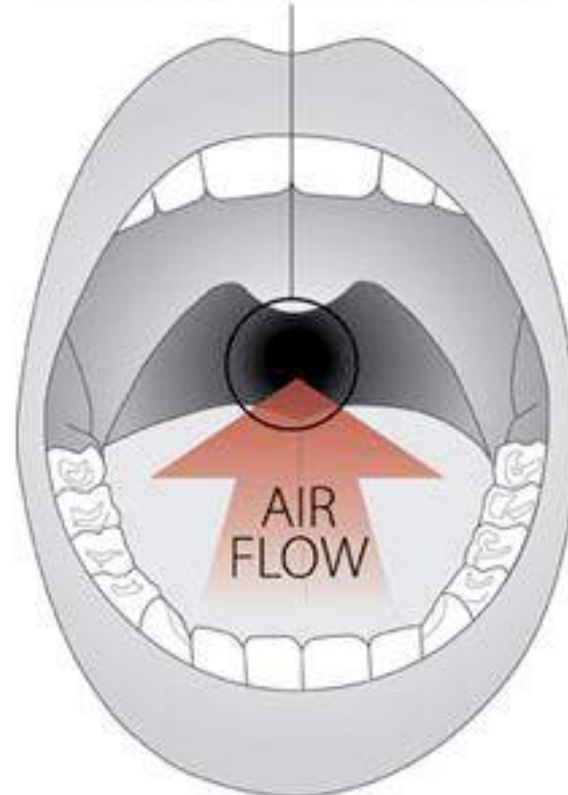
Before

Narrow Breathing Passage



After

Widely Open Breathing Passage





True or False?



**Caffeine consumed at
6 PM will be cleared
through your system
by 11 PM.**



Will Losing Weight Help?

- Being overweight can exacerbate OSA.
- Sleep apnea can be caused by anatomical factors like a large tongue, extra tissue in the airway or a small jaw.
- Losing weight is not a guaranteed cure for OSA, but can definitely help you sleep better and feel healthier.



BMI and Body Weight

Obese (>30) Overweight (25–30) Normal (18.5–25) Underweight (<18.5)

		Height in feet/inches and centimetres																					
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170	(77.1)	38	37	36	34	33	32	31	30	29	28	27	27	26	25	24	24	23	22	22	21	21	20
165	(74.8)	37	36	34	33	32	31	30	29	28	27	27	26	25	24	24	23	22	22	21	21	20	20
160	(72.6)	36	35	33	32	31	30	29	28	27	27	26	25	24	24	23	22	22	21	21	20	19	19
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Source: © 2009 Vertex42 LLC. BMI chart created by Vertex42.com. Used with permission (<http://www.vertex42.com/ExcelTemplates/bmichart.html>; retrieved March 16, 2011).

Cognitive Behavioural Therapy for Insomnia (CBT-i)



- CBT-i is an approved method for treating insomnia without the use of sleeping pills.
- Focuses on awareness of thinking and behaviors.
- CBT-i helps change sleep habits and scheduling, and improves thinking and misconceptions about sleep.

Cognitive Behavioural Therapy (CBT)



- Do this FIRST, this is not an add-on
- At least as effective as pharmacological therapies for insomnia, but without side effects
- Continued benefits 6 – 12 months later
- Can improve onset to sleep by 30 minutes, and decrease awakenings

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Pharmacology



- Despite the lack of evidence, pharmaceutical interventions are widely used by MDs
- They don't provide improved quality of sleep
- Safety Issues
 - Tolerance
 - Abuse
 - Dependence
 - Withdrawal (rebound insomnia)
 - Morning sedation
 - Cognitive and motor impairment

When To See A Sleep Specialist



- There are ~88 sleep disorders.
- 5 most common: insomnia, sleep apnea, restless legs syndrome, narcolepsy, and periodic limb movements.
- A polysomnogram of ~25 electrodes will assess your brainwaves, heart rate, eye movement, muscle tensing, air flow in mouth and nose, and chest wall and leg movement during sleep.

When To See A Sleep Specialist



- When you feel sleepy during the day, even if you have had a good nights' sleep.
- When you need a long time to fall asleep and wake up frequently.
- If you have uncomfortable restless sensations in your arms and legs.
- Your legs jerk during the night.
- You wake up gasping for breath.
- Your partner says your snoring is disrupting their sleep.
- You have fallen asleep while driving.

OSA Self Assessment

- Do you experience any of these problems?
 - Unintentionally falling asleep during the day
 - General daytime sleepiness
 - Unrefreshing sleep
 - Fatigue
 - Insomnia
- Do you ever wake from sleep with a choking sound or gasping for breath?
- Has your bed partner noticed that you snore loudly or stop breathing while you sleep?
- Have you ever nodded off or fallen asleep while driving?
- Do you often wake up with a headache?
- Do you have a neck size of 17 inches or more?
- Do you have a body mass index (BMI) of 25 or higher?
- Do you have high blood pressure?
- Do you have a family member who has sleep apnea?

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Does Snoring Mean I Have Sleep Apnea?

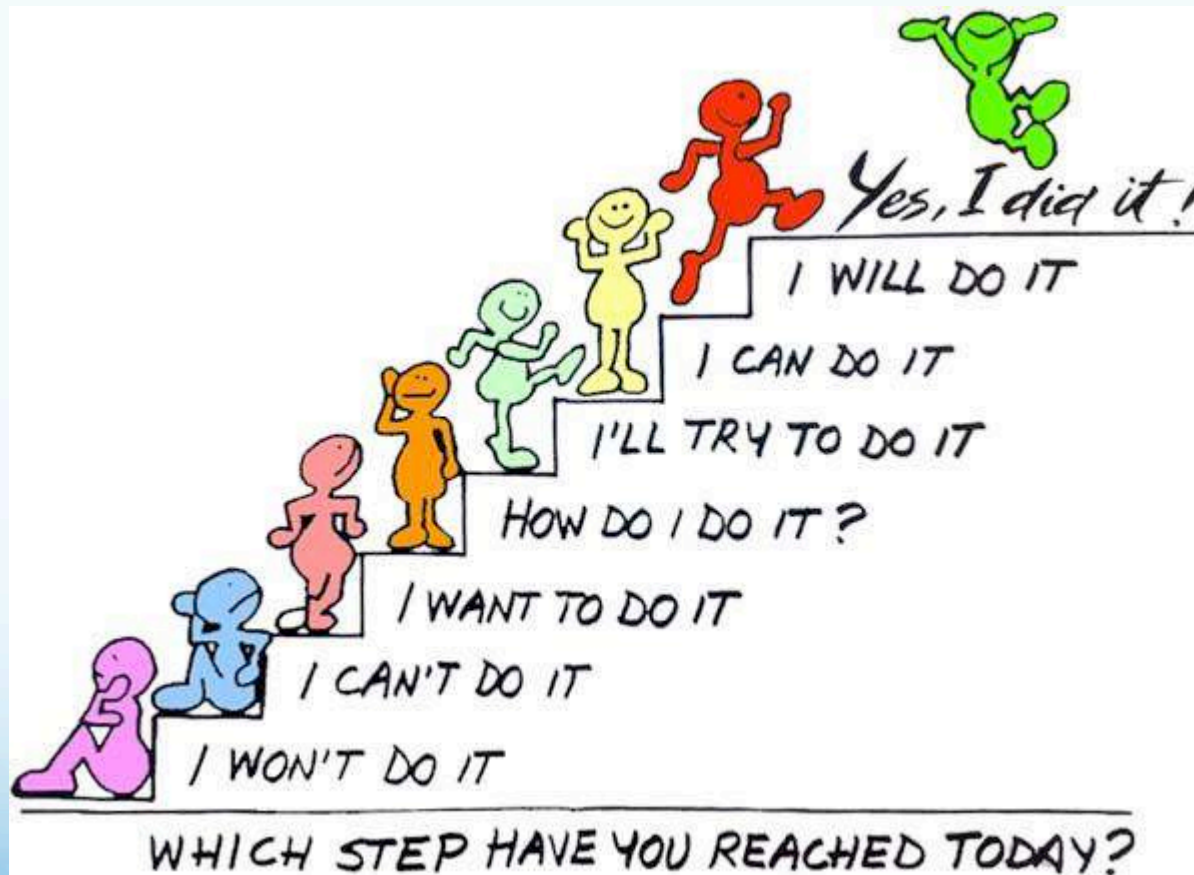
- Loud snoring can be a sign of general fatigue and can disrupt your or your partner's sleep, but it is not always a sign of OSA.
- If, however, the snoring is very loud, seems obstructed or ends with gasps, it is likely OSA. In this case, it is important to contact a doctor or a sleep specialist.



Your 3 Easiest Next Steps



Understanding Health Behavior Change



Understanding Health Behavior Change





Top 10 Quick Tips to Sleep Well Tonight

1. Keep your circadian clock set with a consistent bedtime and wake-up time.
2. Create a cool, quiet, dark, well-ventilated bedroom that you love. Remove any work or electronic materials from your sleep sanctuary. Sleep on a fresh, comfortable mattress and pillows.
3. Use light strategically: avoid bright light close to bedtime, expose yourself to natural light in the mornings, and take a sun break during the day.
4. Exercise every day, but not within three hours of bedtime.
5. Nap early, for 20–30 minutes before 5 p.m., or not at all, as late-day naps decrease sleep drive.
6. Avoid alcohol, nicotine, caffeine and heavy meals in the evening.
7. Establish a soothing pre-sleep ritual to ease the transition from wake time to sleep time. Power down electronic devices at least 30 minutes before bedtime. Relax the mind with some writing before bed, and relax the body with meditation, gentle yoga, or a warm bath or shower.
8. Maintain healthy thoughts about sleep. Don't use your mental power against yourself. If you can't sleep after about 20 minutes, get up, go into another room, and do something relaxing until you feel tired again. Don't watch the clock.
9. Learn breathing and relaxation techniques that calm anxiety, reset your natural rhythms, and gradually decrease any need for sleeping pills or supplements.
10. Sleep time is sacred. Expect to sleep well, and allow sleep to wash over you.

Reflection and Dialogue with My Health



Your Commitment To Yourself

- Choose 3 changes.
- Tell someone about your changes and ask for their support.



Learning More and Getting Support



Take the SNOOZE BLUES Quiz

Take this quick quiz to analyze your sleep habits. Find out exactly where your Snooze Blues are coming from, and learn simple, practical actions you can take to improve your sleep.

Discover if you are a **Sleep Sabotager**, **Undercover Sufferer**, **Wired Worrier**, or **Sleep Superstar**!

[Take the Quiz](#)

Sleep Diary

This is an excellent sleep diary from the American Academy of Sleep Medicine. Print a few copies and assess your sleep carefully for a week or two. Notice any harmful patterns that you could focus on shifting. If you meet with a health professional about your sleep challenges, it is very helpful to bring your diaries along.

[Go to Sleep Diary](#)



Take a Sleep Test

Test your knowledge about healthy sleep. To become more aware of your sleep patterns, check each statement that is true for you. If you have any concerns, I suggest your print your results and take them with you when you visit with your doctor. This will be very helpful for their diagnosis and plan for treatment.

[Go to Sleep Test](#)

www.chriscarruthers.com

- Resource Page
 - Sleep Diary
 - Sleep Quiz
 - Recommended Books and Websites
 - Free Audio program



Chris Carruthers, PhD
Redefining Health. Your Way.

**The Exhausted Person's Guide
to the 4 Fundamentals
that Overcome Insomnia
and Conquer Fatigue**

TWO WEEK SLEEP DIARY



INSTRUCTIONS:

1. Write the date, day of the week, and type of day: Work, School, Day Off, or Vacation.
2. Put the letter "C" in the box when you have coffee, cola or tea. Put "M" when you take any medicine. Put "A" when you drink alcohol. Put "E" when you exercise.
3. Put a line (I) to show when you go to bed. Shade in the box that shows when you think you fell asleep.
4. Shade in all the boxes that show when you are asleep at night or when you take a nap during the day.
5. Leave boxes unshaded to show when you wake up at night and when you are awake during the day.

SAMPLE ENTRY BELOW: On a Monday when I worked, I jogged on my lunch break at 1 PM, had a glass of wine with dinner at 6 PM, fell asleep watching TV from 7 to 8 PM, went to bed at 10:30 PM, fell asleep around Midnight, woke up and couldn't get back to sleep at about 4 AM, went back to sleep from 5 to 7 AM, and had coffee and medicine at 7:00 in the morning.

Today's Date	Day of the week	Type of Day Work, School, Off, Vacation	Noon	1PM	2	3	4	5	6PM	7	8	9	10	11PM	Midnight	1AM	2	3	4	5	6AM	7	8	9	10	11AM
sample	Mon.	Work		E					A				I									C M				

week 1
week 2

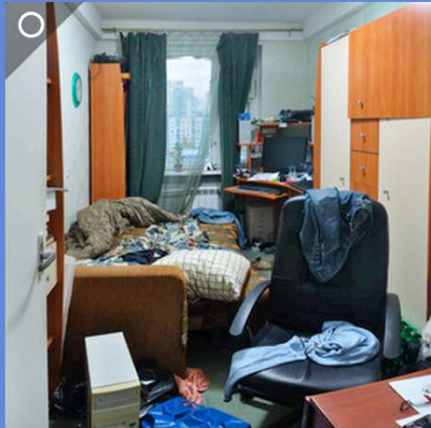
A circular inset image showing a bed with two striped pillows and a bedside lamp. The text "Spotlight On Sleep" is overlaid on the image. "Spotlight On" is in a black script font, and "Sleep" is in a large, blue script font.

Spotlight On Sleep

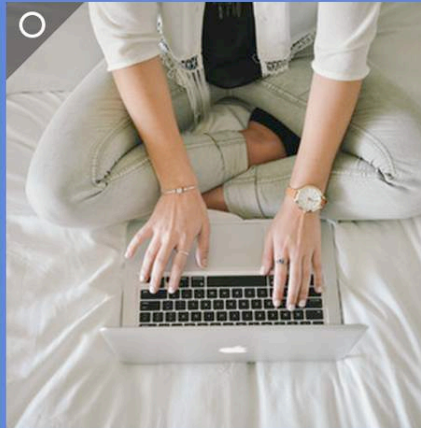
Learn the **4 Fundamentals**
to **Fight Fatigue**

Sleep Quiz

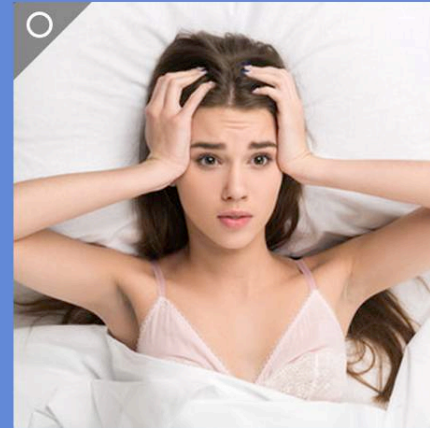
Your bedtime ritual is to:



Navigate with caution, because a laundry bomb exploded, and I'm not sure exactly where the bed is.



Cram in those last-minute emails and take one last scroll through Facebook.



Dread the upcoming night because I know I won't fall asleep for hours.



The Sleep Well Tonight Personal Workbook includes:

- Life Satisfaction Assessment Symptom Checklist
- Your Vision for Health
- Clinical Trials Summary on Sleep and Health
- Your Commitment to Change
- Your Sleep Assessment Quiz
- Your Obstacles to Sleeping Well
- The Three Key Skills: Expressive Writing, The 36 Breaths, The Body Scan
- Your Action Plan Checklist
- Resource List
- Sleep Diary



The *Sleep Well Tonight* Method

Reframe Your Nights to Rejuvenate Your Days



A 15-Day Sleep Transformation Program That Includes:

- Three 90-minute live, interactive online sessions with myself and the group. Three live Q&A sessions after each webinar.
- 15 days of short lessons and reminder tips delivered to your email inbox each day that will help you troubleshoot and apply course insights to real daily challenges.
- Your Sleep Well Tonight Personal Workbook (electronic PDF).
- Sacred Sleep Recommended Resources – my personal sleep resource library.
- Audio-recordings of all 3 webinar sessions for your later review and practice.
- Our 30-day “I gave it my all” money back guarantee.

Questions and Discussion



A Gift for You



Famous Sleep Quotes



“A ruffled mind makes a restless pillow.”

Charlotte Bronte

Don't go to bed angry, you won't sleep well. Stay up and fight!”

Phyllis Diller

**Sleep
Well
Tonight!**

