

# Sleep Disordered Breathing

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Pulmonary/Sleep Medicine

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Thank you!



# SECOND OPINION

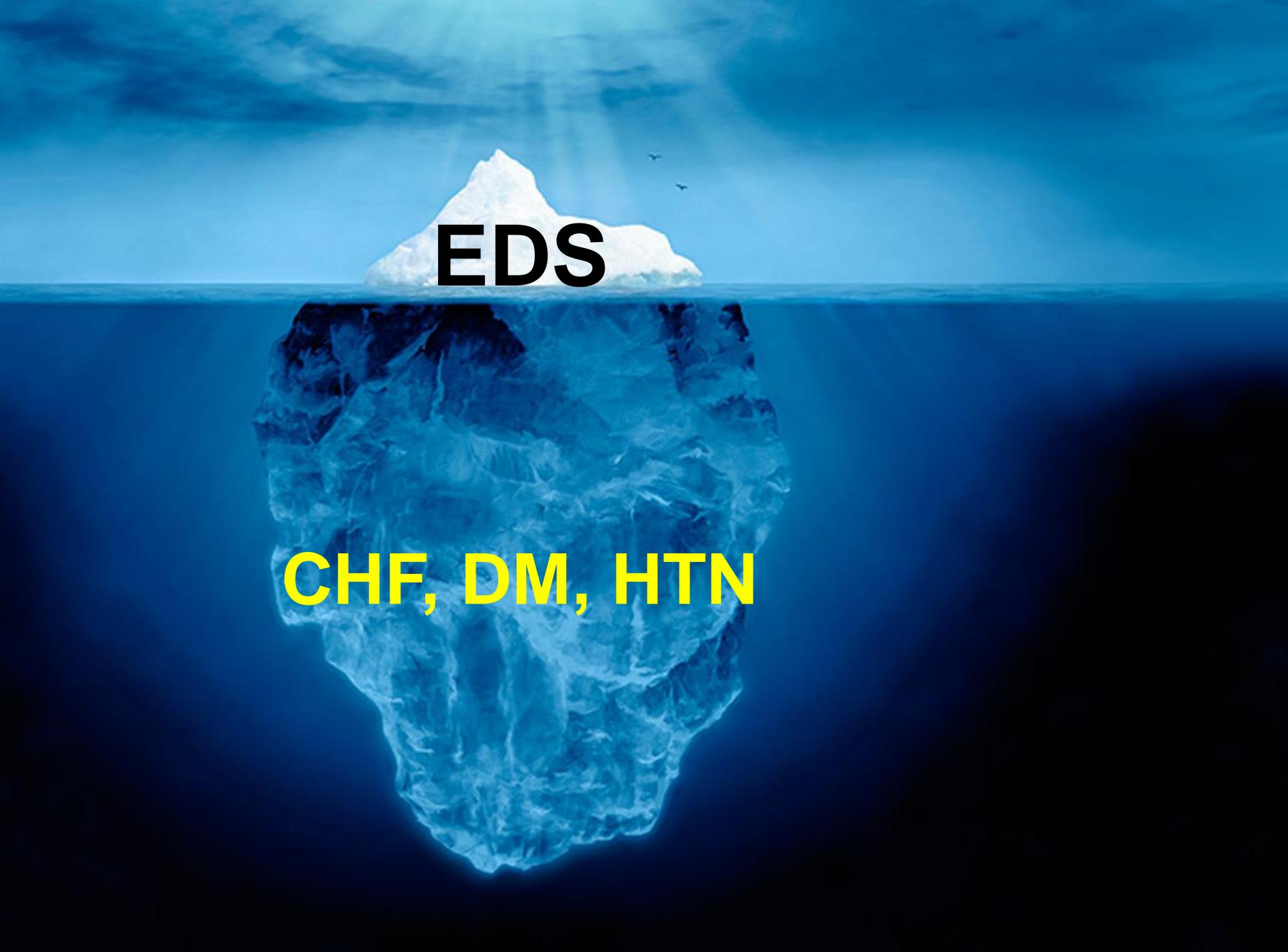
BY ROB ROGERS

AIRLINE PERKS WE'D LIKE TO SEE...

IN THE EVENT OF SEVERE  
SNORING, A CPAP MASK  
WILL DROP FROM THE  
COMPARTMENT ABOVE...

Z



An iceberg floating in a blue ocean under a blue sky. The tip of the iceberg is above the water line, and the much larger, jagged base is submerged. The text 'EDS' is written in black on the tip, and 'CHF, DM, HTN' is written in yellow on the submerged part.

**EDS**

**CHF, DM, HTN**

# Lunch & Learn

**“ Bad Sleep leads to Bad Stuff ”**

# Lunch and Learn

Sleep is not “restful” it’s “stressful”

# LUNCH & LEARN

- ***Wife: “I’m scared to death that he is going to stop breathing and die in his sleep – I stay awake most of the night and when he stops breathing , I feel I have to hit him to make him breathe.”***

# LUNCH & LEARN

- *Husband: “ I am sleepy driving my car and fall asleep while waiting for the red light to change – the cars behind me beep their horns to wake me up.”*

# The Spectrum of Sleep Disordered Breathing (SDB)

- 
- Snoring
  - Hypopneas
  - Obstructive Apnea, Mixed Apnea
  - Central Apnea, Periodic Breathing & Cheyne Stokes Respirations
  - Nocturnal Hypoventilation
  - Chronic Respiratory Failure

# Obstructive Sleep Apnea (OSA)

EVERY NIGHT MILLIONS OF AMERICANS STOP BREATHING DURING SLEEP. EVERY MORNING THEY WAKE UP WITH NO MEMORY OF SUFFOCATING, COMPLETELY UNAWARE THEY HAVE A SERIOUS MEDICAL CONDITION CALLED.....  
“SLEEP APNEA.”

# Sleep Disordered Breathing – Epidemiology

- Why are we Discussing this topic?
  - National Commission on Sleep Disorders
  - Various Sleep Disorders – 100+ million
  - Sleep Apnea : 50 – 60 million Americans
  - Commercial truck drivers – 25%
  - More common than Asthma
  - NFL 25% - 40% young athletes
  - Sleep disorders direct costs ~ \$18 billion/yr
  - Incidence ~ 20-25% M, 8-10% F

# "EVOLUTION"

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# What Exactly is Sleep Apnea?

- Apnea means “without breath”
- Windpipe becomes blocked
- Breath may halt for seconds to minutes
- Oxygen is cut off, carbon dioxide soars
- Face turns blue, brain goes into overdrive, heart rates skyrocket ~ 300 BPM
- Eventually,...snort, gasp & start all over again & again...& they never know it!!

# Sleep Disordered Breathing

- **This cycle is what makes S.A. such a deadly medical condition. Most people who have it never know it...until it's too late.**

# OSA is Hazardous to Your Health

- Mental : Cognitive impairments
  - inability to concentrate
  - irritability
  - mood swings
  - loss of memory
  - anxiety

# OSA is Hazardous to Your Health

- Physical: **Linked to...**
  - High Blood Pressure
  - Heart Attacks
  - Stroke
  - Diabetes
  - Obesity
  - Chronic Fatigue Syndrome
  - Depression
  - Chronic Headaches

# How to Find Out if YOU Have OSA

- Index of Suspicion
- Bedpartner History
- Focused Physical exam
- Formal Polysomnography (Sleep Study)
- “One night at a sleep center can change every night for the rest of your life!!”  
Here’s how it works.....

Patient Name: \_\_\_\_\_

Date: \_\_\_\_\_

Physician Name: \_\_\_\_\_

**STOP BANG SCORING MODEL**

1.	<b>Snoring</b> - Do you snore loudly (louder than talking or loud enough to be heard through closed doors?)	Yes	No
2.	<b>Tired</b> - Do you often feel tired, fatigued, or sleepy during daytime?	Yes	No
3.	<b>Observed</b> - Has anyone observed you stop breathing during your sleep?	Yes	No
4.	<b>Blood Pressure</b> - Do you have or are you being treated for high blood pressure?	Yes	No
5.	<b>BMI</b> - BMI more than 35 kg/m?	Yes	No
6.	<b>Age</b> - Age over 50 years?	Yes	No
7.	<b>Neck Circumference</b> - Neck circumference over 16 cm?	Yes	No
8.	<b>Gender</b> - Male?	Yes	No

**High Risk of OSA:** answering yes to three or more items

**Low Risk of OSA:** answering yes to less than three items

Score

Height (Inches)

BODY WEIGHT (Pounds)

BMI	NORMAL									OVERWEIGHT									OBESE									EXTREME OBESITY										
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54		
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59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267		
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76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443	451	459

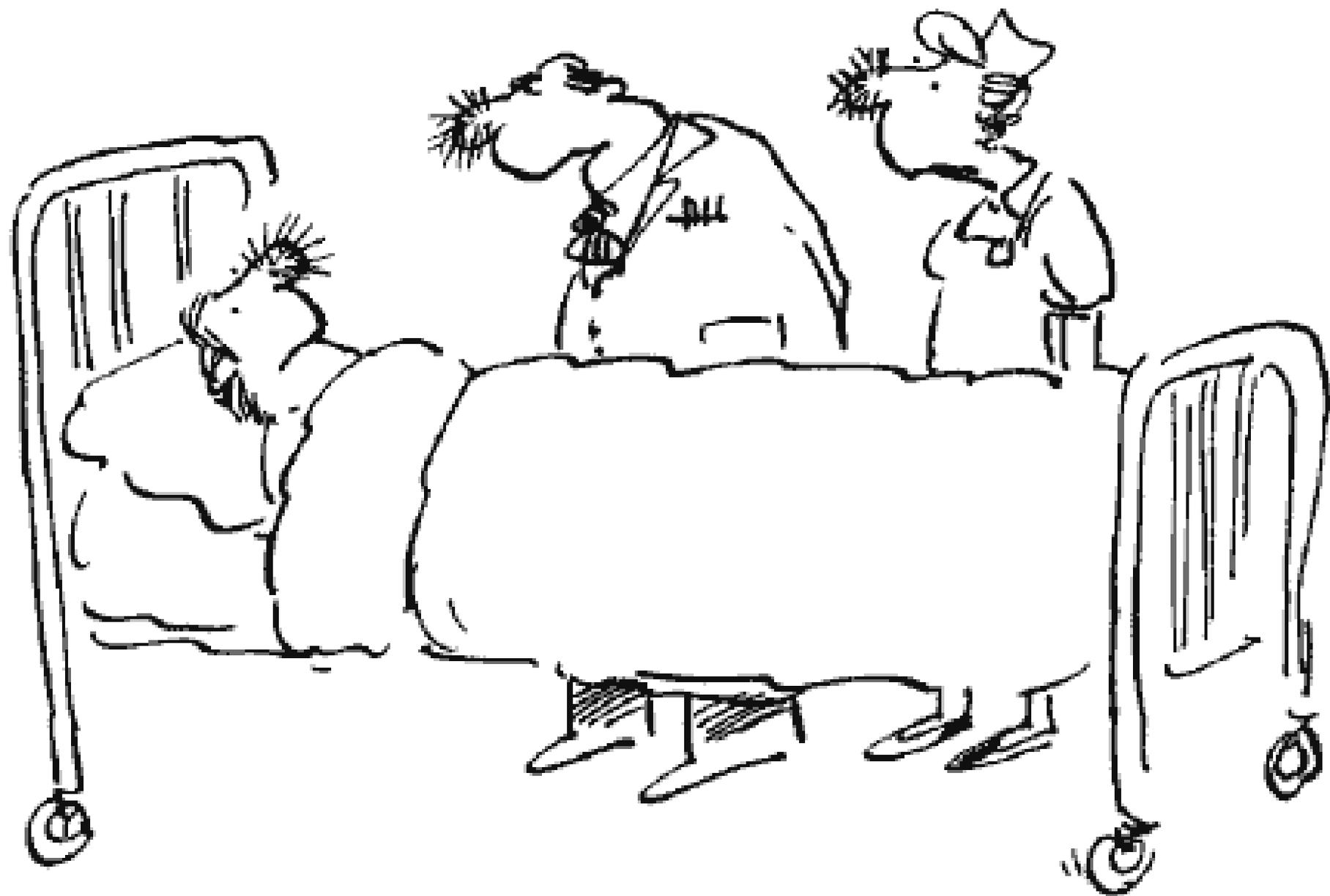
Source: Adapted from Clinical Guidelines on the Identification, Evaluation and Treatment of Overweight and Obesity in Adults: The Evidence Report.

# OSA Risk Factors

- Being 35 or older
- High blood pressure (hypertension)
- Narrowed airway
- Chronic nasal congestion
- Diabetes : 3 times more common
- Being male : twice as likely

# OSA Risk Factors

- Menopause: a woman's risk increases after
- Use of sedatives, alcohol or tranquilizers
- Smoking : 3 times more likely
- Neck Circumference: F>16in., M>17in.
- Being Overweight : But thin people too



*"We don't know what it is, but we do know it's contagious."*





16 9:20 PM

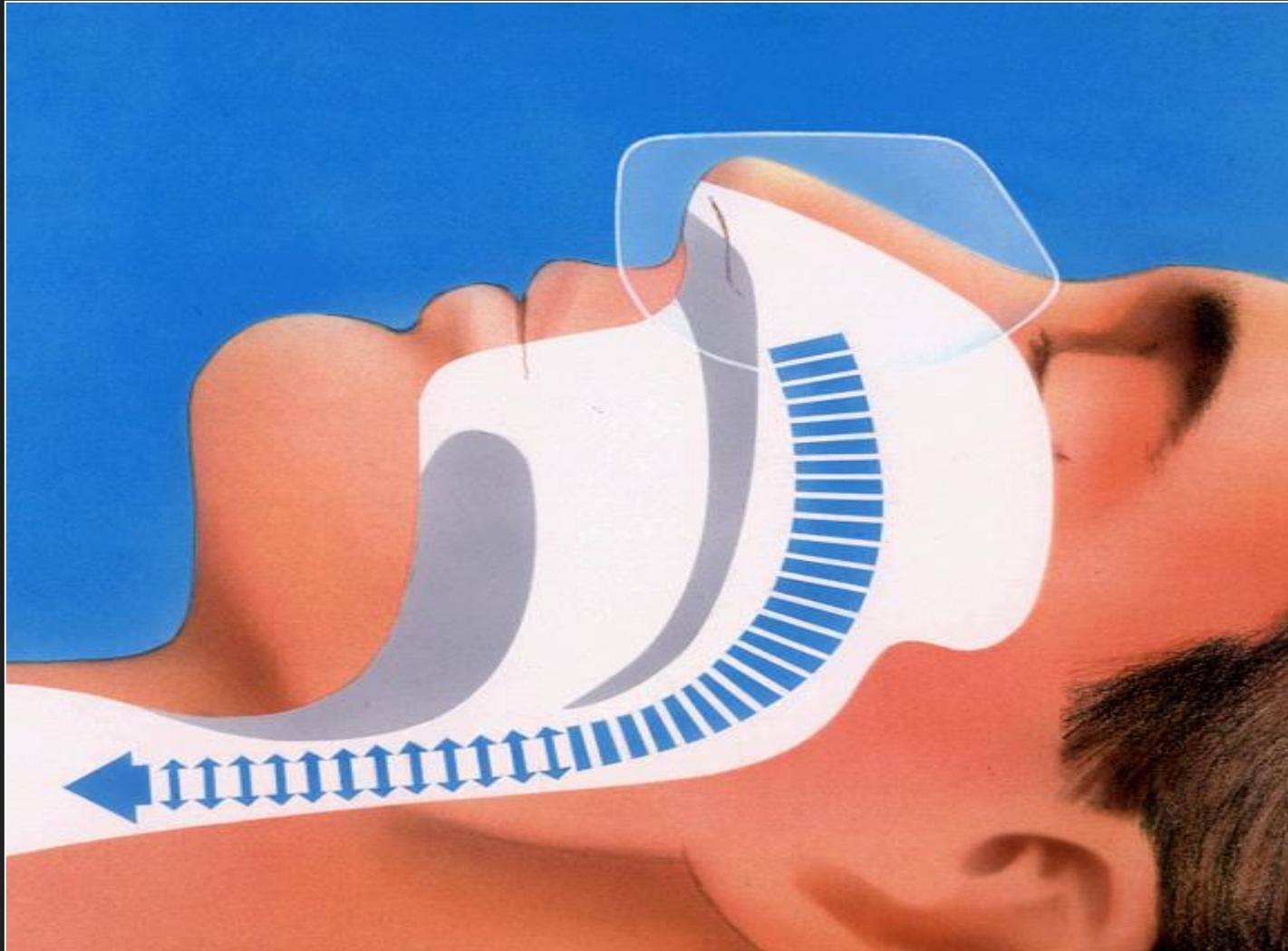
# At Home Sleep Test (22-23)

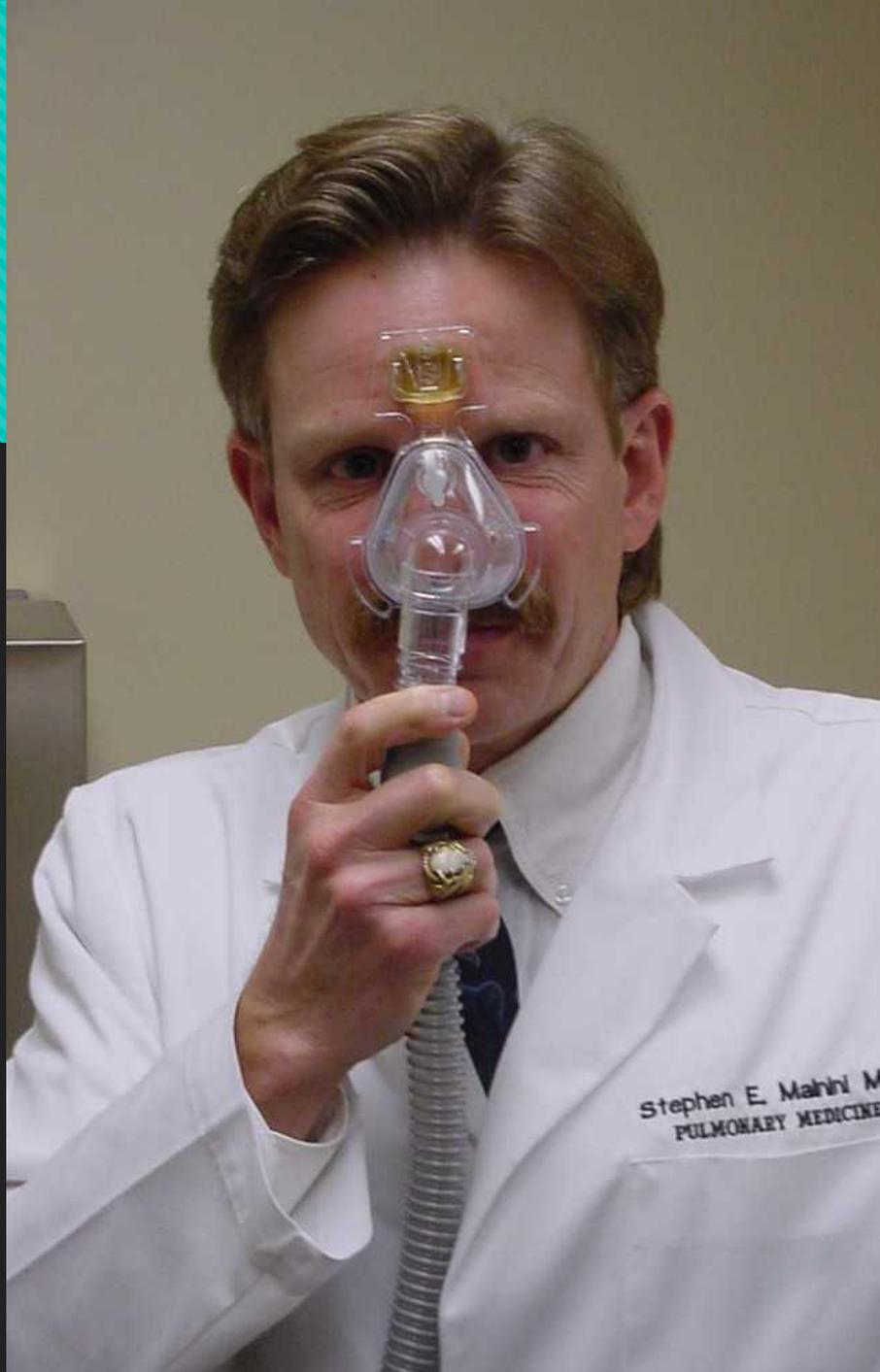


# Sleep Disordered Breathing

**THE GOOD NEWS IS THAT SLEEP  
APNEA, ONCE IT IS DIAGNOSED, IS  
100% TREATABLE !**

- **CPAP: Pneumatic Splint**



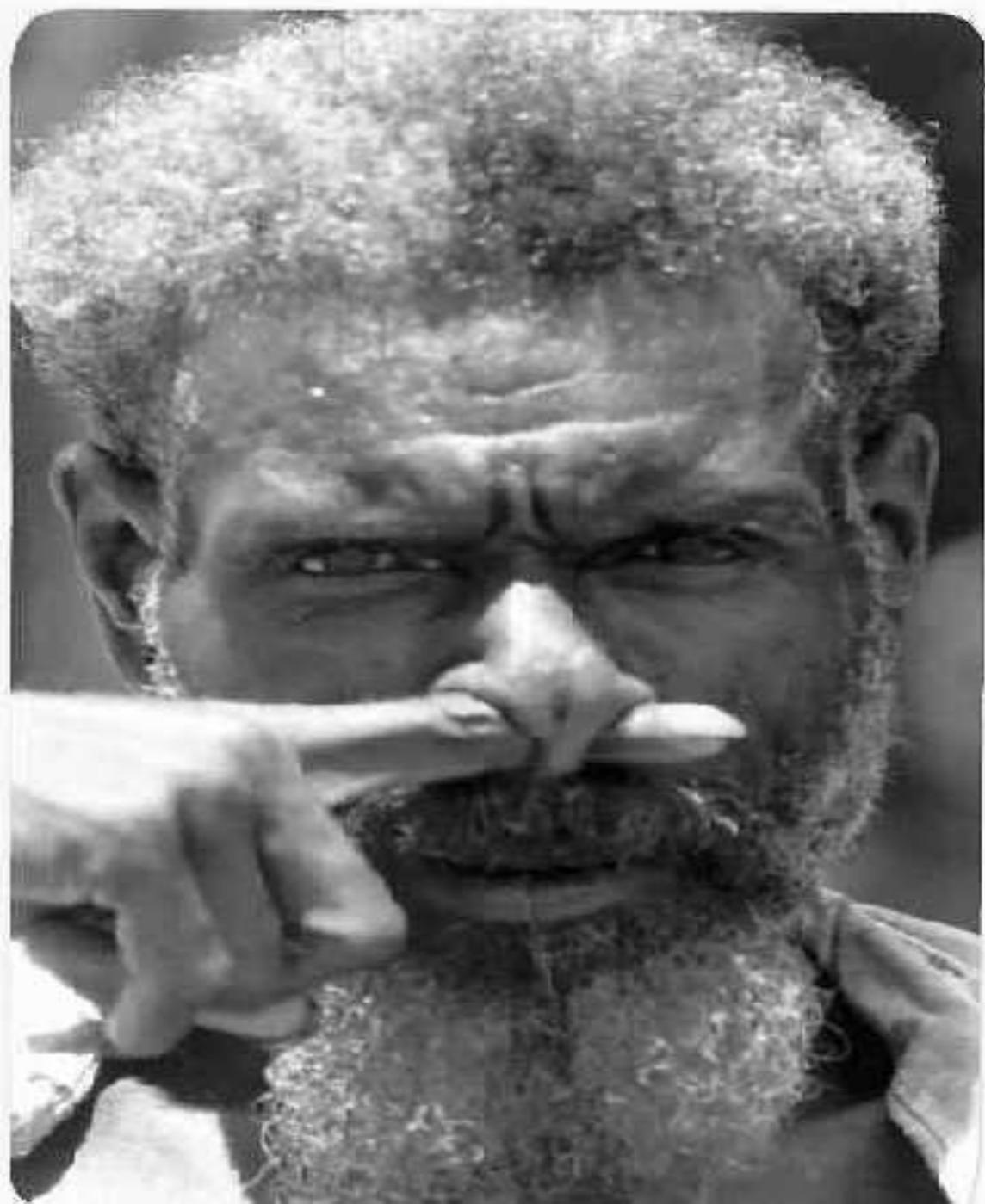


Stephen E. Mahini M  
PULMONARY MEDICINE

# West Park Hospital Home Oxygen

## Walk-in Clinic

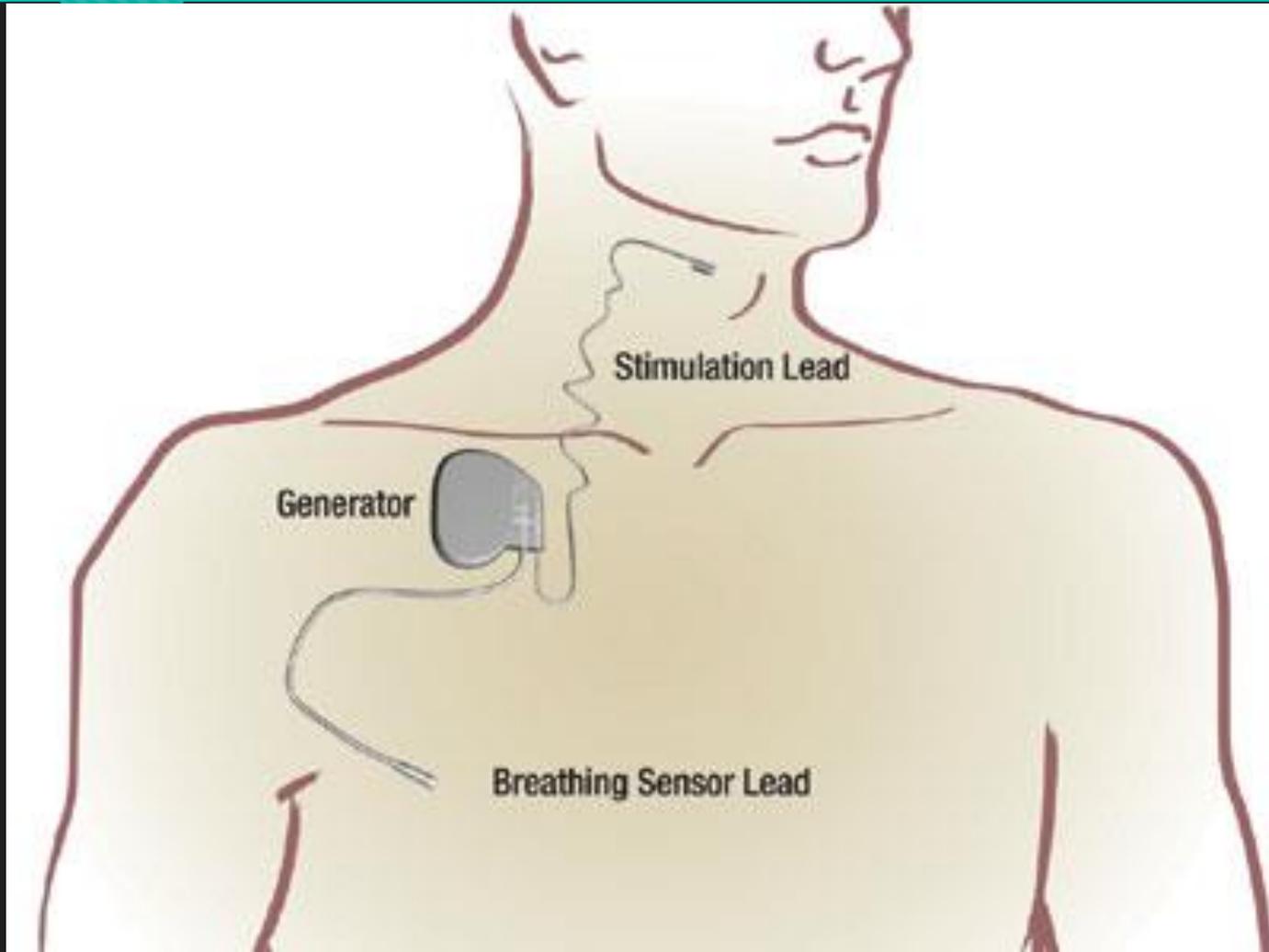
- Tuesday & Thursday –  
8:00 a.m. to 5:00 p.m.
- Closed 12:00 to 1:00 p.m.



# Snoring & OSA - Treatment

- **Continuous Positive Airway Pressure (CPAP)**
  - Pneumatic splint/stent
- **Weight reduction**
- **Sleep posture modification**
- **Oral devices**
- **Surgery**

# Inspire Stimulator



# Sleep Disordered Breathing

**“ Bad Sleep leads to Bad Stuff,” .....but**

**“CPAP Sleep leads to Good Stuff”**

# Sleep Disordered Breathing

**“ I can’t begin to tell you how much better I feel – I have more energy, I am not falling asleep anymore during the day, and my whole outlook on life has changed!”**

# Sleep Disordered Breathing - Summary

- Sleep apnea is quite common
- Major symptom is loud snoring
- Is linked to several medical conditions
- Is easily diagnosed
- Is easily treated!



**THANK YOU FOR YOUR ATTENTION!**