Υπνική άπνοια: σημεία προσοχής και λάθη

Χαράλαμπος Μερμίγκης
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Διευθυντής Εργαστηρίου Ύπνου
Ερρίκος Ντυνάν Hospital Center

- Η ιατρική του ύπνου έχει στενή σχέση με την καρδιολογία

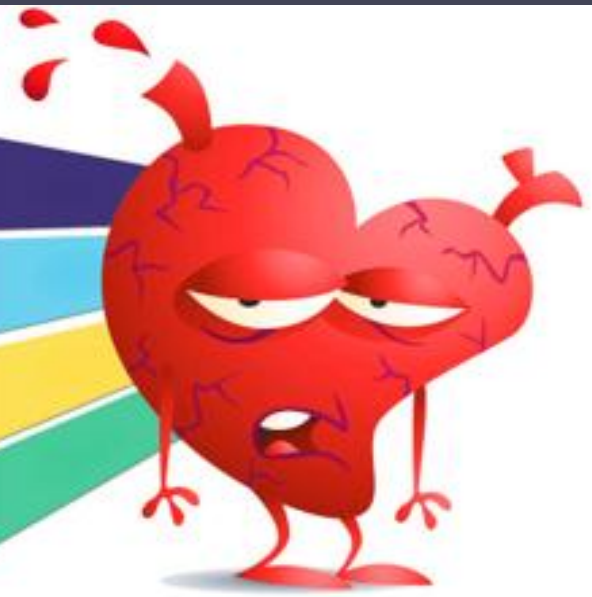
ΝΑΙ

High blood pressure - 37% also have sleep apnea

Drug-resistant high blood pressure - 83% also have sleep apnea

Atrial fibrillation - 49% also have sleep apnea

Males with congestive heart failure - 76% also have sleep apnea



Obstructive Sleep Apnea

- Hypoxemia
- Reoxygenation
- Hypercapnia
- Intrathoracic Pressure Changes
- Arousals

Intermediary Mechanisms

Sympathetic Activation
- Vasoconstriction
- Increased Catecholamines
- Tachycardia
- Impaired
- Variabil

Endothelia

Vascular C

Inflammati

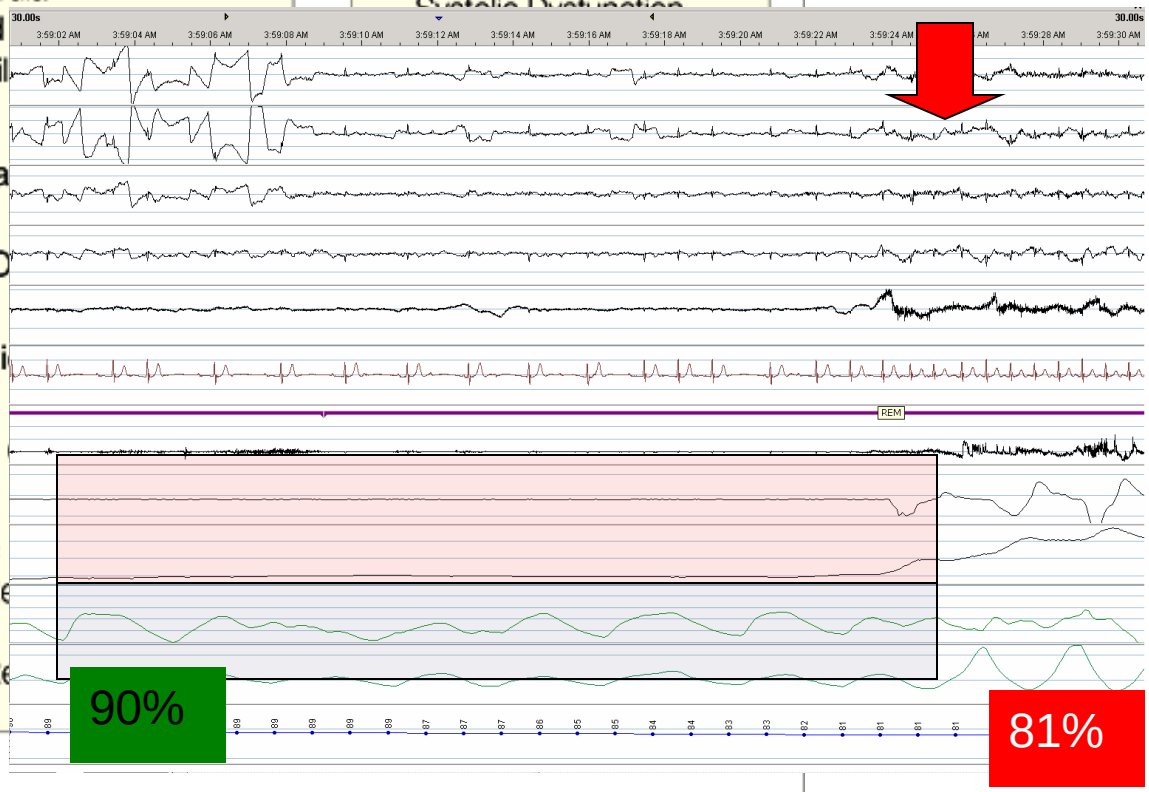
Increased

Metabolic
- Leptin Re
- Obesity
- Insulin Re

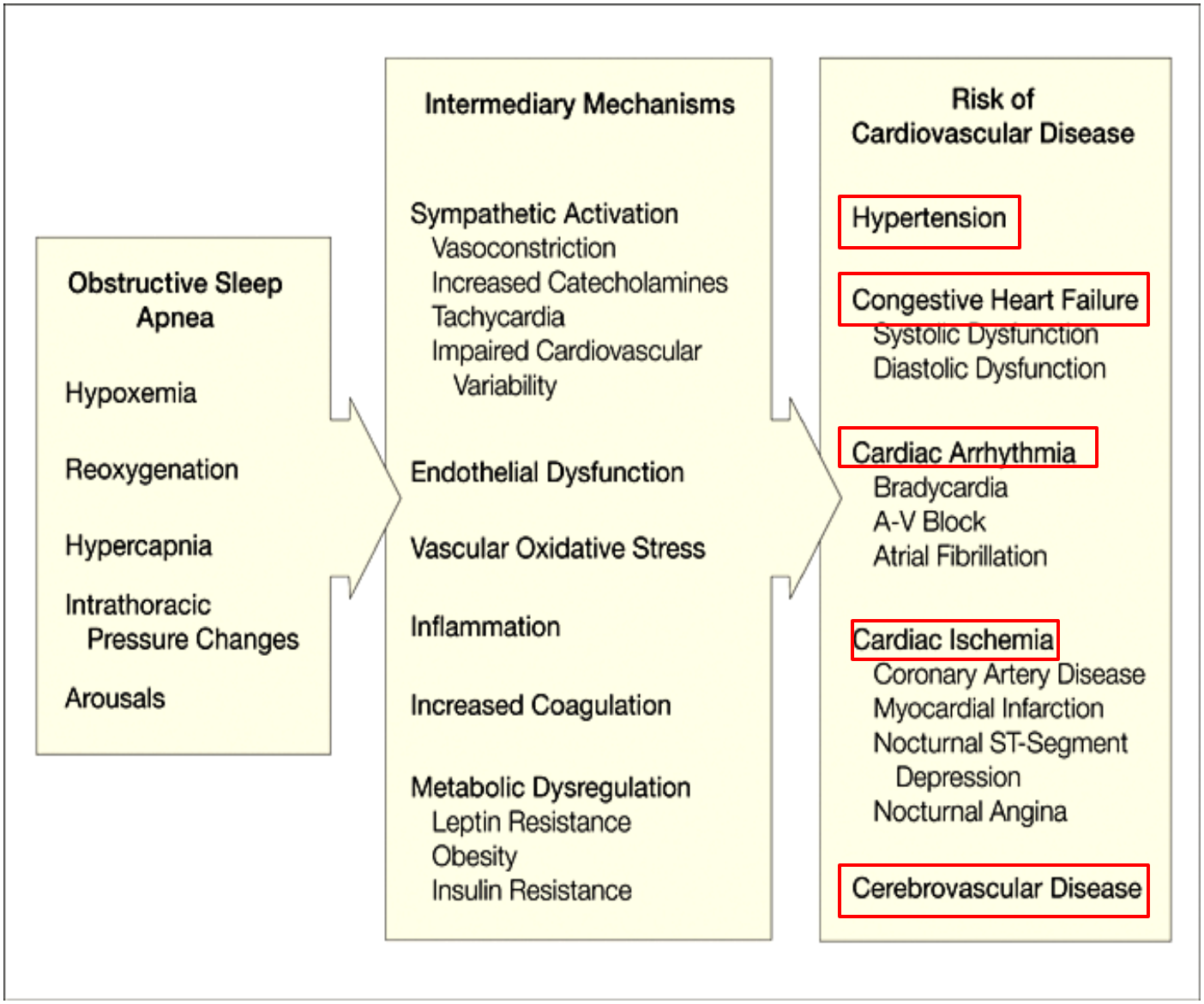
Risk of Cardiovascular Disease

Hypertension

Congestive Heart Failure
- Systolic Dysfunction

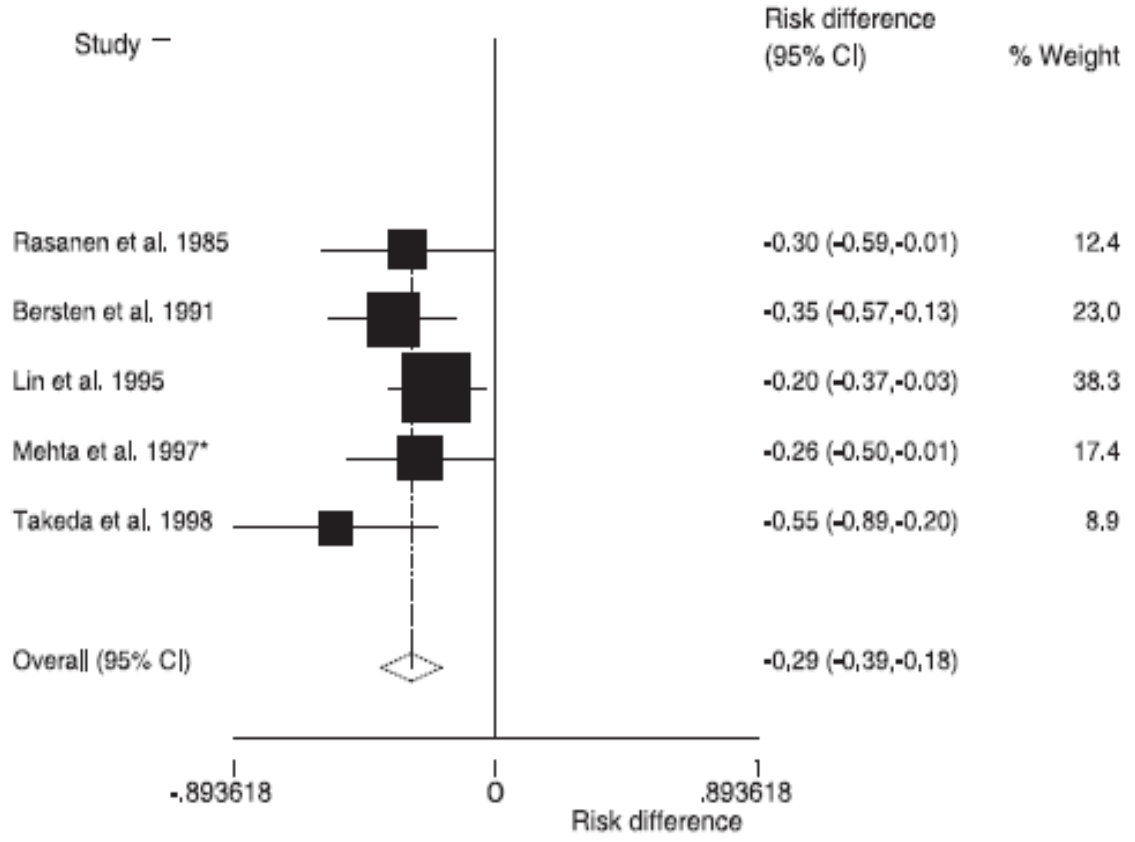


Samsuzzaman et al, JAMA 2003



Samsuzzaman et al, JAMA 2003

Μειωμένα ποσοστά διασωλήνωσης επί εφαρμογή PAP



Risk difference <1 indicates NPPV has lower rate of intubation than control; risk difference >1 indicates NPPV has higher rate of intubation than control;

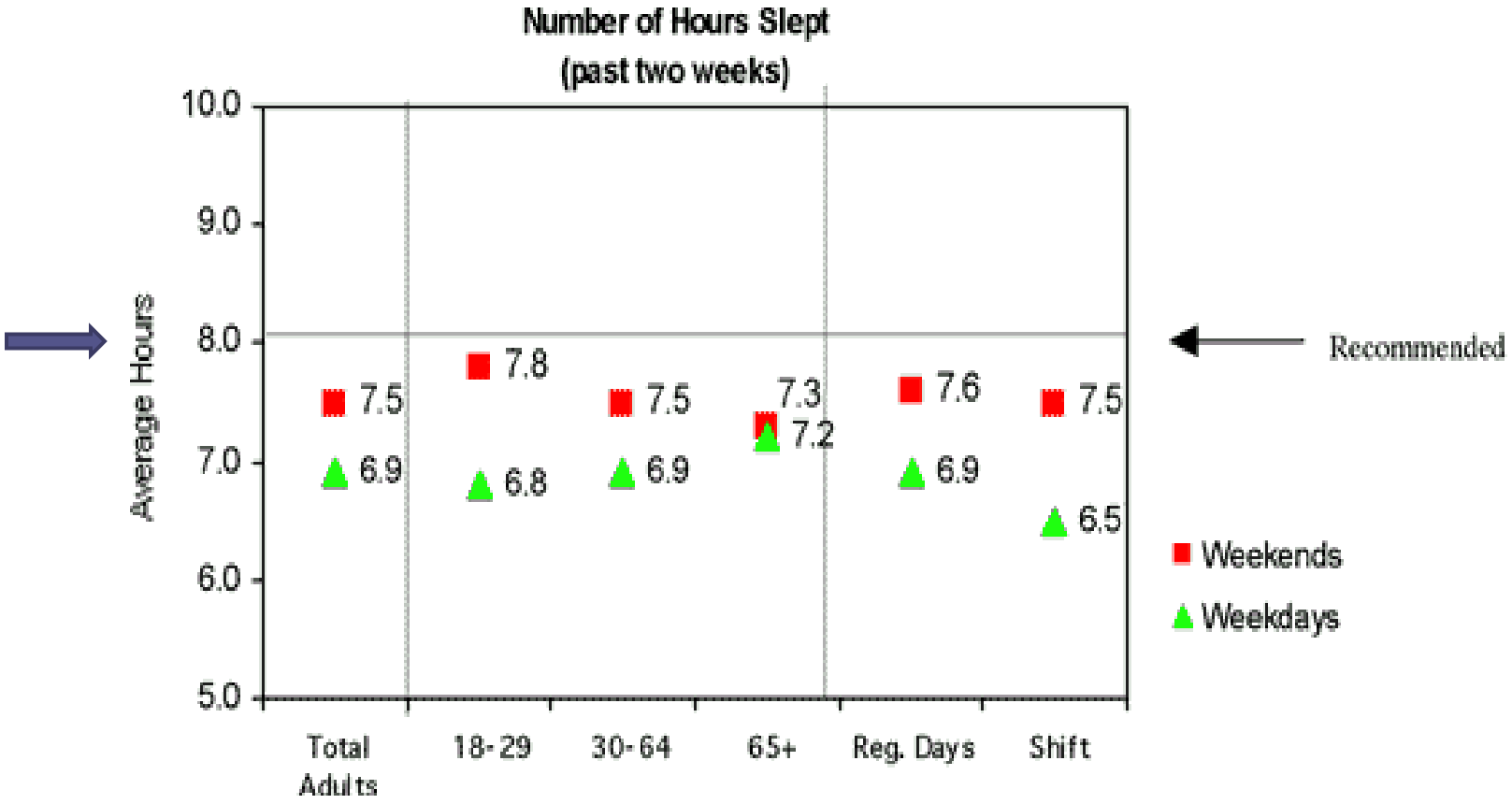
Να μην ξεχνάμε ότι η εφαρμογή PAP μπορεί επίσης να μειώσει το προφόρτιο και συνεπώς να προκαλέσει υποτασικά επεισόδια

- Η υπνική άπνοια είναι το συχνότερο νόσημα του ύπνου

ΛΑΘΟΣ

Είναι συχνό αλλά ακολουθεί σε συχνότητα το **σύνδρομο ανεπαρκούς ύπνου** και την **αϋπνία**

Το ωράριο ύπνου της «σύγχρονης εποχής»



NSF sleep poll 2000

VOU

J Clin Sleep Med 2015;11(6):591–592

- Η αϋπνία δεν μπορεί να είναι σύμπτωμα της υπνικής άπνοιας

ΛΑΘΟΣ

Μπορεί να είναι σύμπτωμα της υπνικής άπνοιας, **ιδίως σε ασθενείς με συνυπάρχοντα νοσήματα**
(ΧΑΠ, καρδιακή ανεπάρκεια, νευρολογικά-ψυχιατρικά νοσήματα)

CHEST

Insomnia and Risk of Cardiovascular Disease

Sogol Javaheri, MD, MPH; and Susan Redline, MD, MPH

Insomnia is the most prevalent sleep disorder in the United States and has high comorbidity with a number of cardiovascular diseases (CVDs). In the past decade, a number of observational studies have demonstrated an association between insomnia and incident cardiovascular disease (CVD) morbidity and mortality, including hypertension (HTN), coronary heart disease (CHD), and heart failure (HF). Despite some inconsistencies in the literature, likely due to variations in how insomnia is defined and measured, the existing data suggest that insomnia, especially when accompanied by short sleep duration, is associated with increased risk for HTN, CHD and recurrent acute coronary syndrome, and HF. Purported mechanisms likely relate to dysregulation of the hypothalamic-pituitary axis, increased sympathetic nervous system activity, and increased inflammation. This paper reviews the most recent studies of insomnia and CVD and the potential pathophysiological mechanisms underlying this relationship and highlights the need for randomized trials to further elucidate the nature of the relationship between insomnia and CVD.

CHEST 2017; 152(2):435-444

Αϋπνία και καρδιαγγειακές επιπλοκές

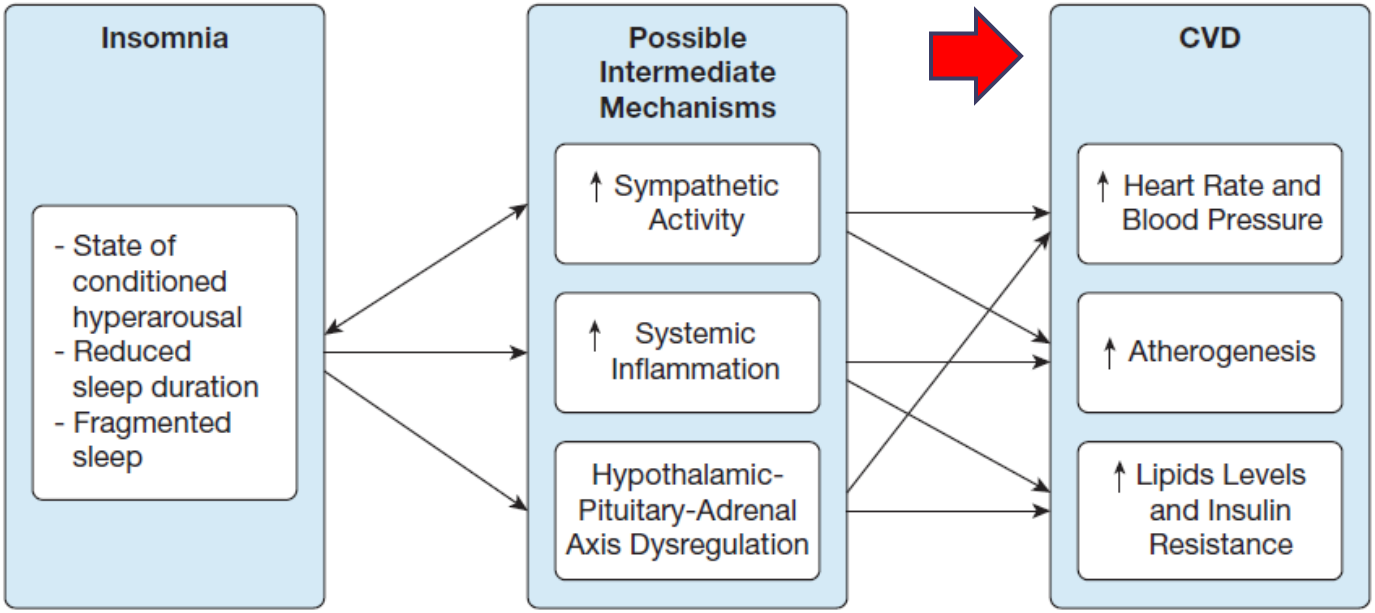
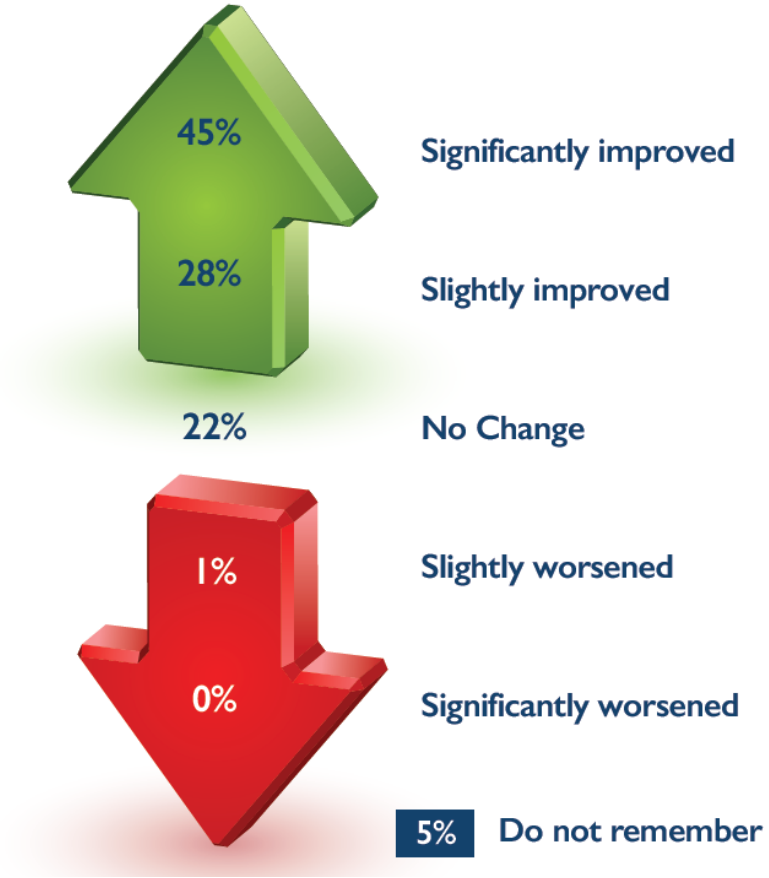


Figure 1 – *Flow diagram regarding possible pathophysiological mechanisms underlying the relationship between insomnia and cardiovascular disease (CVD).*

Figure 6-Patients with Insomina Report OSA Treatment Significantly Improves Sleep Quality



AASM 2016

- **Η συχνότητα της υπνικής άπνοιας μειώνεται και ο αριθμός αυτών που διαγιγνώσκεται αυξάνεται λόγω της ευαισθητοποίησης ιατρών και πληθυσμού**

ΛΑΘΟΣ

Η συχνότητα αυξάνεται και το σύνδρομο συνήθως υπο-διαγιγνώσκεται ακόμη και το 2018

Ποιά τα όρια φυσιολογικού από παθολογικό

Δείκτης απνοιών - υποπνοιών (apnea-hypopnea index, **AHI)**

Αναπνευστικά επεισόδια (άπνοιες - υπόπνοιες) ανά ώρα ύπνου

AHI <5:	**φυσιολογικός δείκτης**
AHI 5-14:	**ήπιο σύνδρομο**
AHI 15-29:	**μέτριο σύνδρομο**
AHI ≥30:	**σοβαρό σύνδρομο**

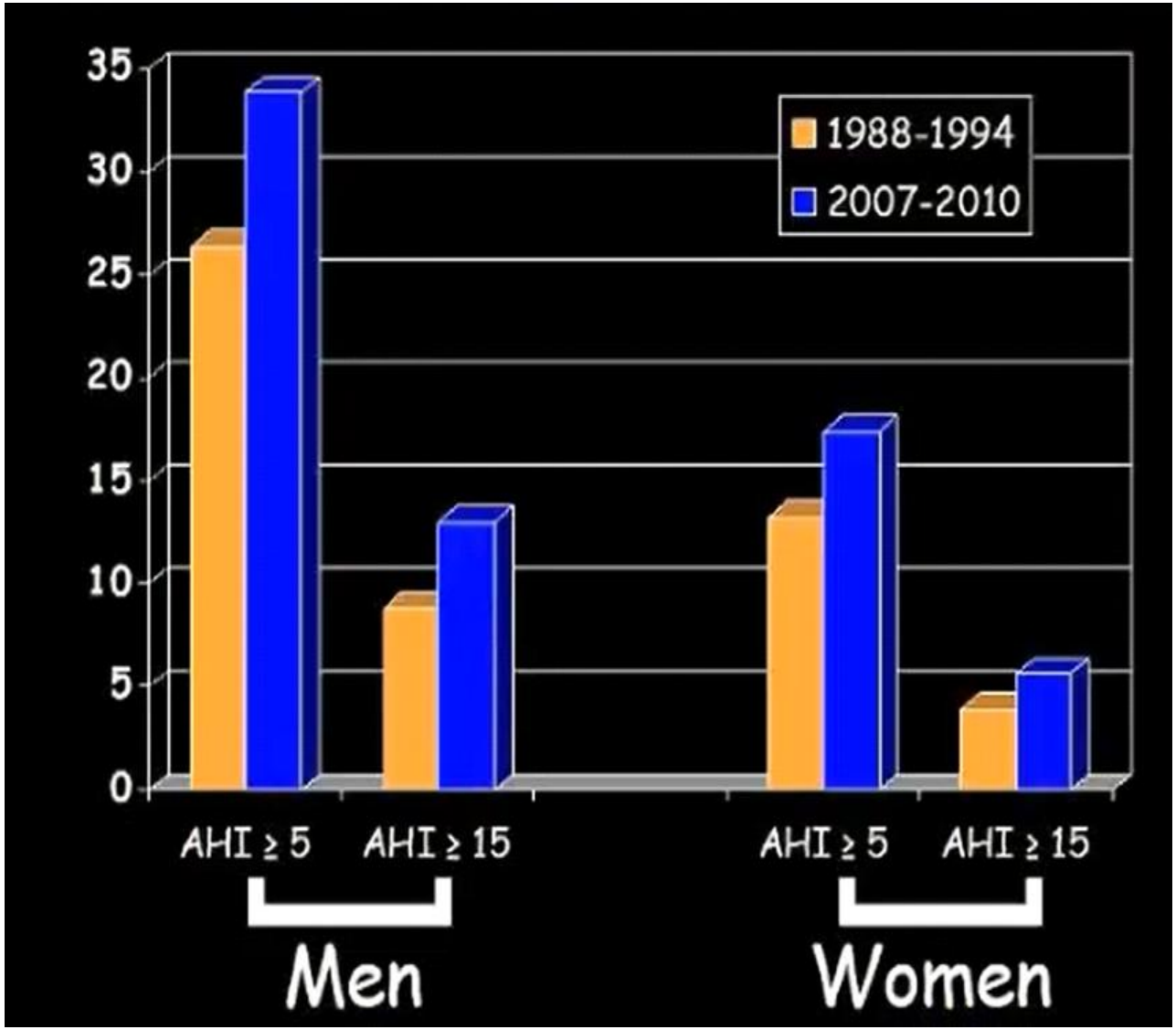
Strollo PJ, N Engl J Med 1996; SIGN Guidelines 2003

ΣΥΝΔΡΟΜΟ ΥΠΝΙΚΗΣ ΑΠΝΟΙΑΣ

Μια «επιδημία» με αυξανόμενες και ανησυχητικές τάσεις

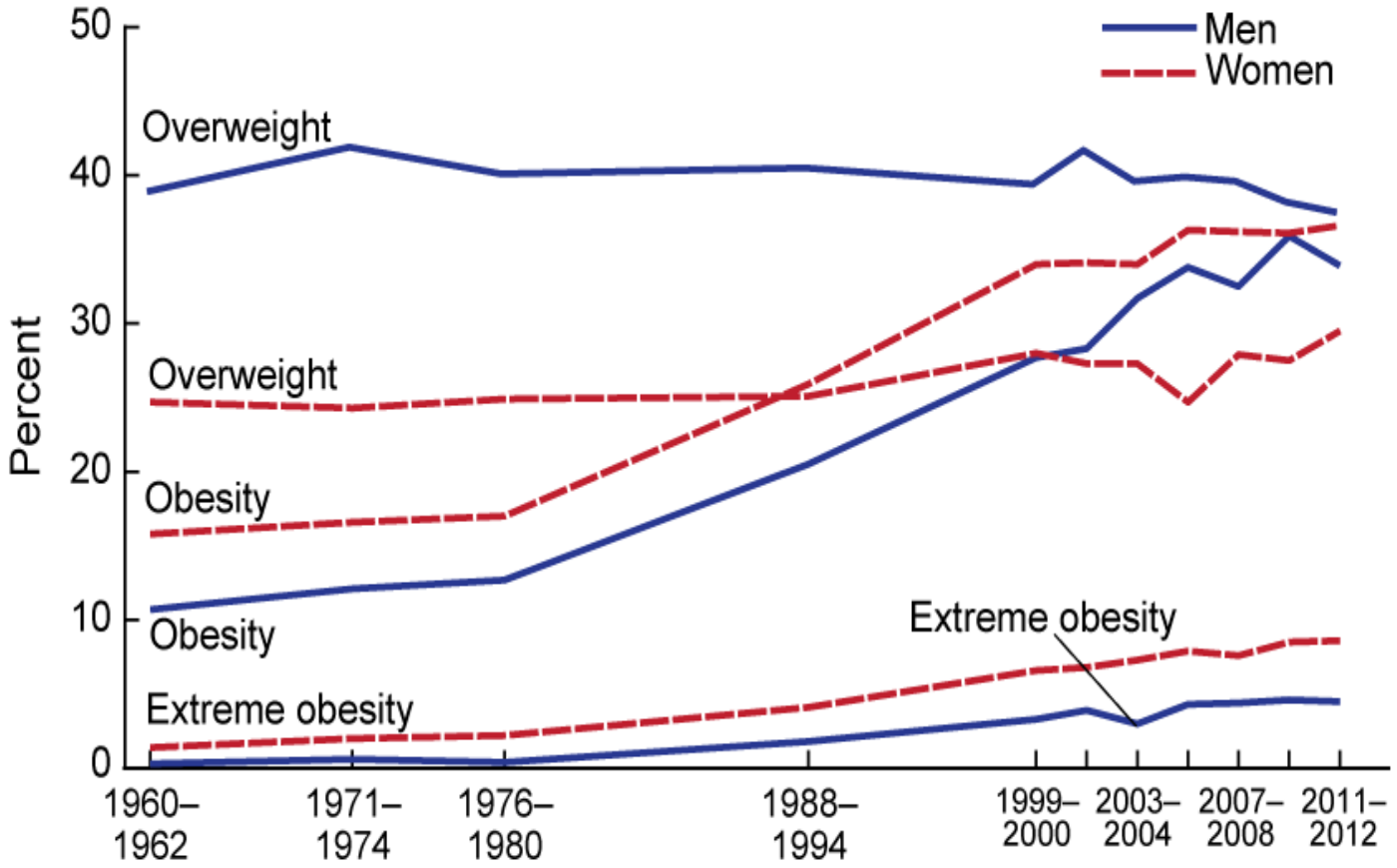
- 13% των ενηλίκων ανδρών και 6% των γυναικών έχουν μέτριο-σοβαρό ΣΑΥΥ (AHI ≥15)

Peppard P, Young T, et al. Increased Prevalence of Sleep-Disordered Breathing in Adults. American Journal of Epidemiology 2013



- 25.000.000 ενηλίκων στις ΗΠΑ έχει ΣΑΥΥ
- Journal of Epidemiology 2013

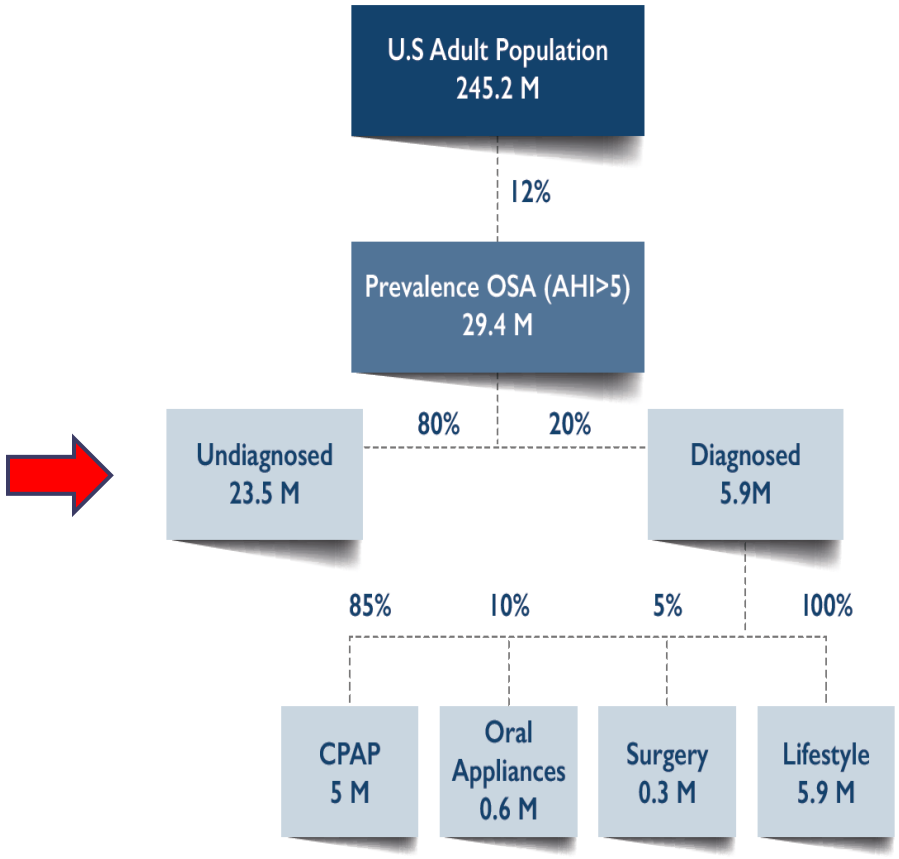
Figure. Trends in adult overweight, obesity, and extreme obesity among men and women aged 20–74: United States, selected years 1960–1962 through 2011–2012



NOTES: Age-adjusted by the direct method to the year 2000 U.S. Census Bureau estimates using age groups 20–39, 40–59, and 60–74. Pregnant females were excluded. Overweight is body mass index (BMI) of 25 or greater but less 30; obesity is BMI greater than or equal to 30; and extreme obesity is BMI greater than or equal to 40.

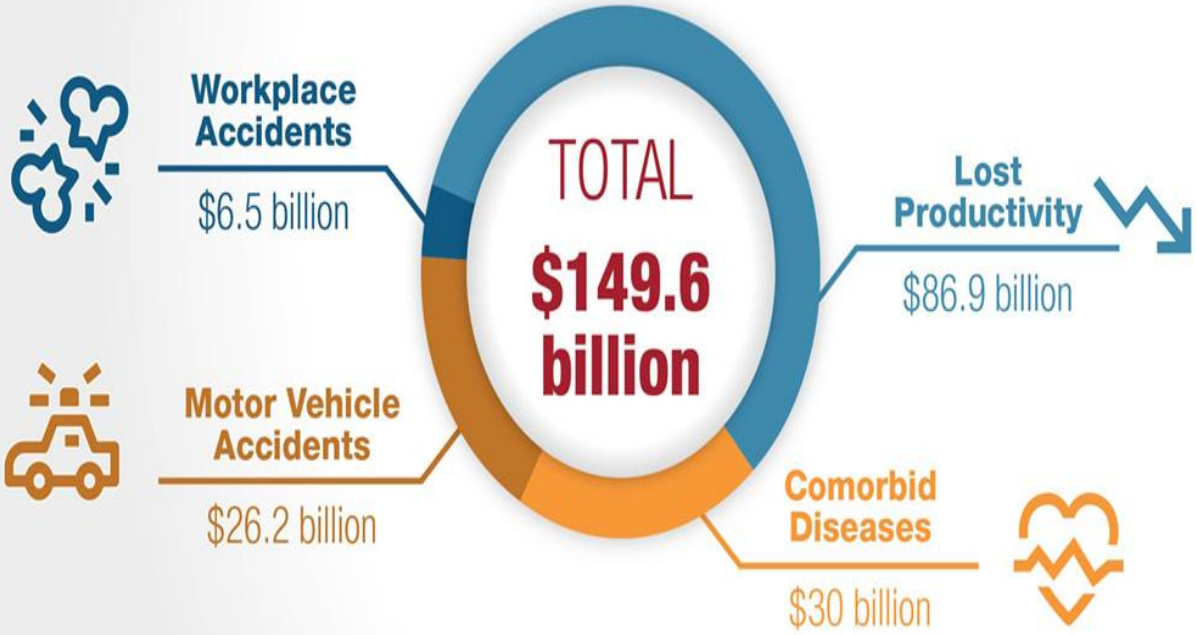
SOURCE: CDC/NCHS, National Health Examination Survey 1960–1962; and National Health and Nutrition Examination Surveys 1971–1974; 1976–1980; 1988–1994; 1999–2000, 2001–2002, 2003–2004, 2005–2006, 2007–2008, 2009–2010, and 2011–2012.

Figure 1-Prevalence, Diagnosis and Treatment of OSA in the United States



Undiagnosed Sleep Apnea: *A Hidden Health Crisis*

In the U.S. the estimated economic cost of undiagnosed obstructive sleep apnea was nearly $150 billion in 2015.



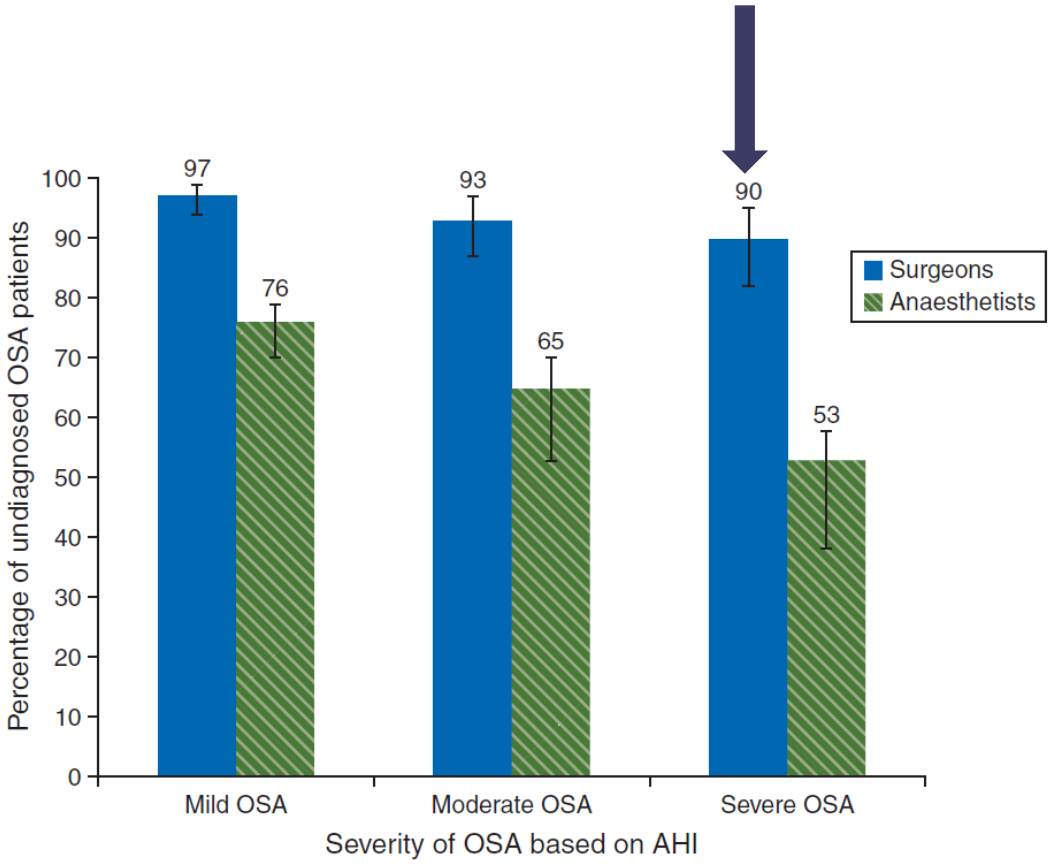
Source: American Academy of Sleep Medicine, 2016 | www.sleepeducation.org

Figure 2-Cost Burden of OSA in Undiagnosed Versus Diagnosis and Treatment Costs in the United States (2015)

Undiagnosed		Diagnosed	
# People with OSA	23,500,000	→	5,900,000
	Cost of Undiagnosed OSA ($US Bil)		Cost of Diagnosed OSA ($US Bil)
Comorbidities & Mental Health	$30.0	Diagnosis, Testing and Follow-up	$0.8
Motor Vehicle Accidents	$26.2	Non-surgical Treatment (PAP and Oral Appliances)	$6.2
Workplace Accidents	$6.5	Surgical Treatment	$5.4
Lost Productivity	$86.9		
Total Costs ($US Bil)	**$149.6**	→	**$12.4**
Cost per Person	$6,366		$2,105


L 08759612F
ONE DOLLAR

Προεγχειρητική αξιολόγηση στην Πράξη



Editor's key points

- Obstructive sleep apnoea (OSA) is associated with perioperative morbidity but is under-diagnosed in the community.
- In this study of Canadian surgical patients, both anaesthetists and surgeons often failed to diagnose OSA.
- Preoperative diagnosis was poor, even in patients with symptoms of moderate-to-severe OSA.

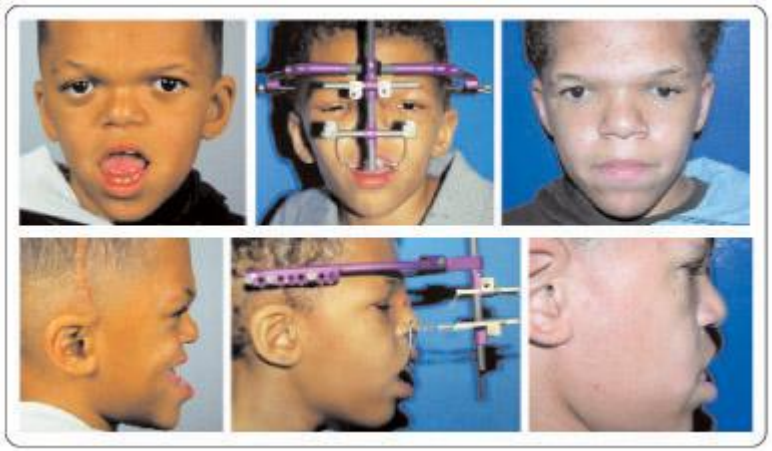
Singh et al. British Journal of Anesthesia 2012

- **Οι ασθενείς με της υπνική άπνοια είναι πάντα παχύσαρκοι**

ΛΑΘΟΣ

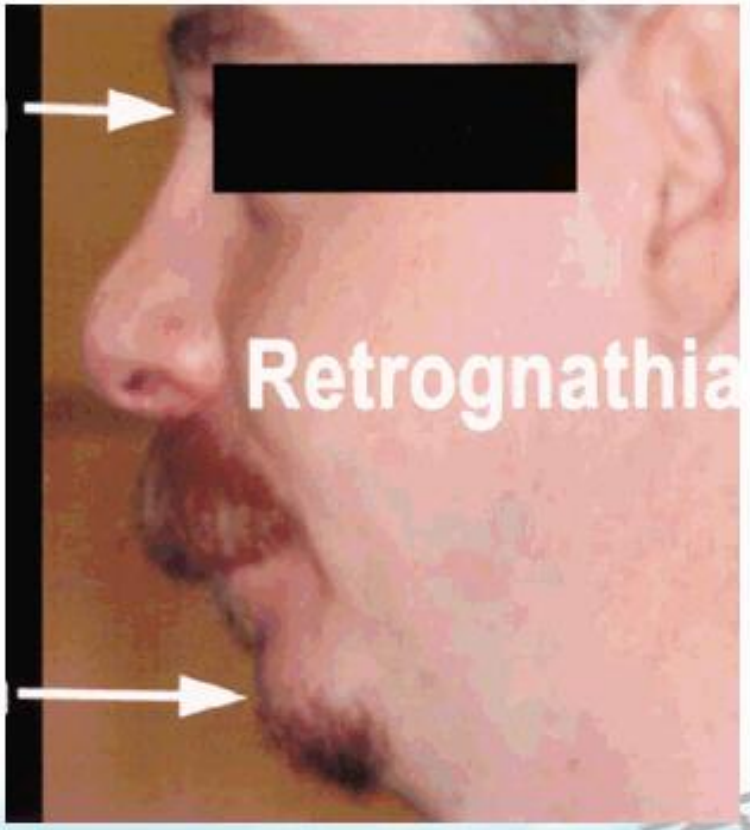
15-20% των ασθενών έχουν φυσιολογικό σωματικό βάρος, αλλά δομικά χαρακτηριστικά προσώπου τους προδιαθέτουν για εμφάνιση υπνικής άπνοιας

Εμφανή σκελετικά-ανατομικά αίτια



Micrognathia and Upper Airway Obstruction

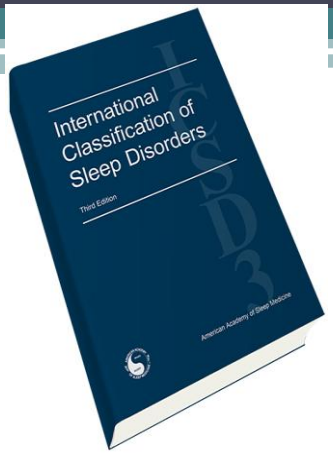
- Small mandible (receding chin)
- Less room for soft tissues in oropharynx
- Narrowed upper airway and susceptibility to collapse



- **Η υπνική άπνοια είναι ανεξάρτητος παράγοντας εμφάνισης σακχαρώδους διαβήτη τύπου 2**

- Περιμένουμε λίγο ακόμα για να πούμε ότι αυτό ισχύει

ΣΥΑ και ΣΔ τύπου 2



- Το ΣΥΑ είναι **πιθανόν ανεξάρτητος** παραγοντας κινδύνου για ανάπτυξη ΣΔ τύπου 2 ICSD 3
- Το ΣΥΑ είναι ιδιαίτερα συχνό ασθενείς με ΣΔ τύπου 2
- Η αντιμετώπιση με CPAP είναι πεδίο έρευνας (12 θετικές και 13 αρνητικές μελέτες) κυρίως ως προς τον αναγκαίο χρόνο εφαρμογής

Grimaldi D et al Diabetes Care 2014

Obstructive Sleep Apnea and Diabetes

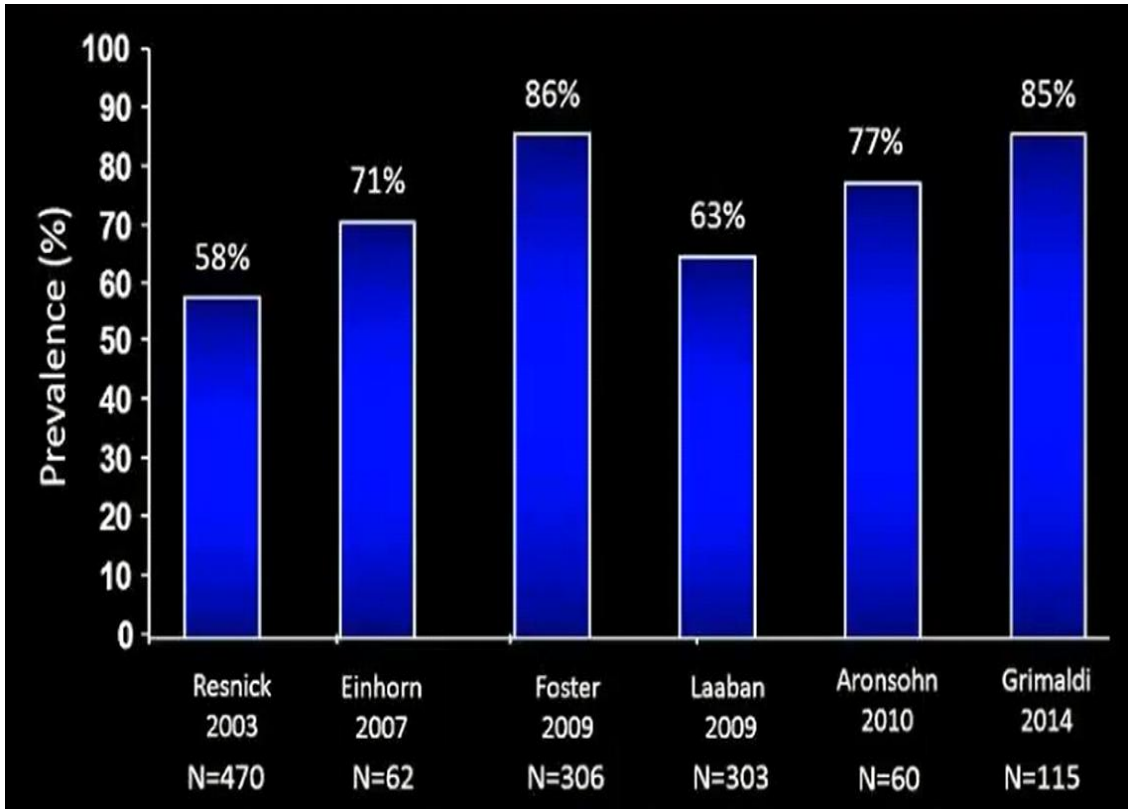
A State of the Art Review

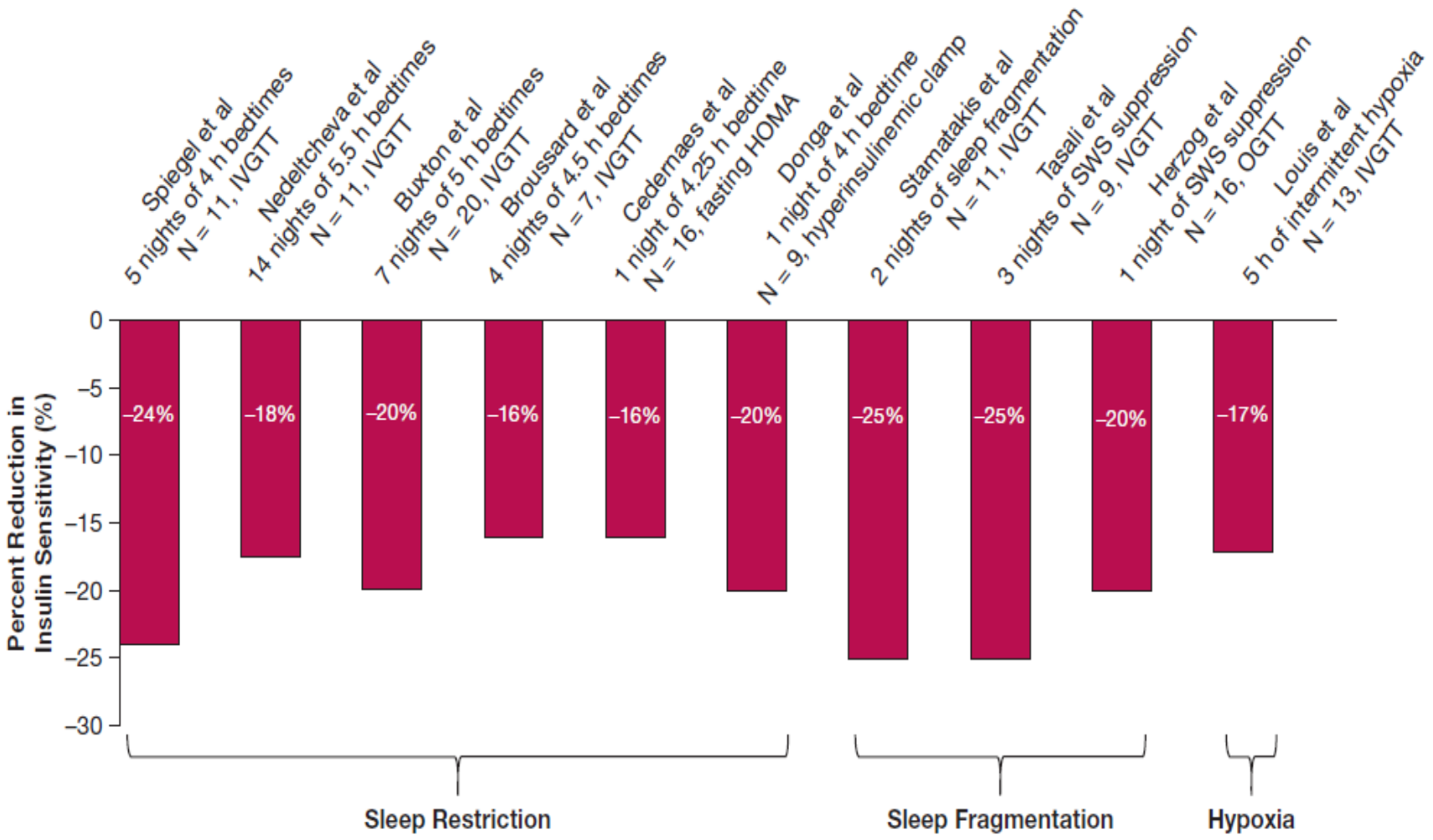
Sirimon Reutrakul, MD; and Babak Mokhlesi, MD

OSA is a chronic treatable sleep disorder and a frequent comorbidity in patients with type 2 diabetes. Cardinal features of OSA, including intermittent hypoxemia and sleep fragmentation, have been linked to abnormal glucose metabolism in laboratory-based experiments. OSA has also been linked to the development of incident type 2 diabetes. The relationship between OSA and type 2 diabetes may be bidirectional in nature given that diabetic neuropathy can affect central control of respiration and upper airway neural reflexes, promoting sleep-disordered breathing. Despite the strong association between OSA and type 2 diabetes, the effect of treatment with CPAP on markers of glucose metabolism has been conflicting. Variability with CPAP adherence may be one of the key factors behind these conflicting results. Finally, accumulating data suggest an association between OSA and type 1 diabetes as well as gestational diabetes. This review explores the role of OSA in the pathogenesis of type 2 diabetes, glucose metabolism dysregulation, and the impact of OSA treatment on glucose metabolism. The association between OSA and diabetic complications as well as gestational diabetes is also reviewed.

CHEST 2017; ■(■):■-■

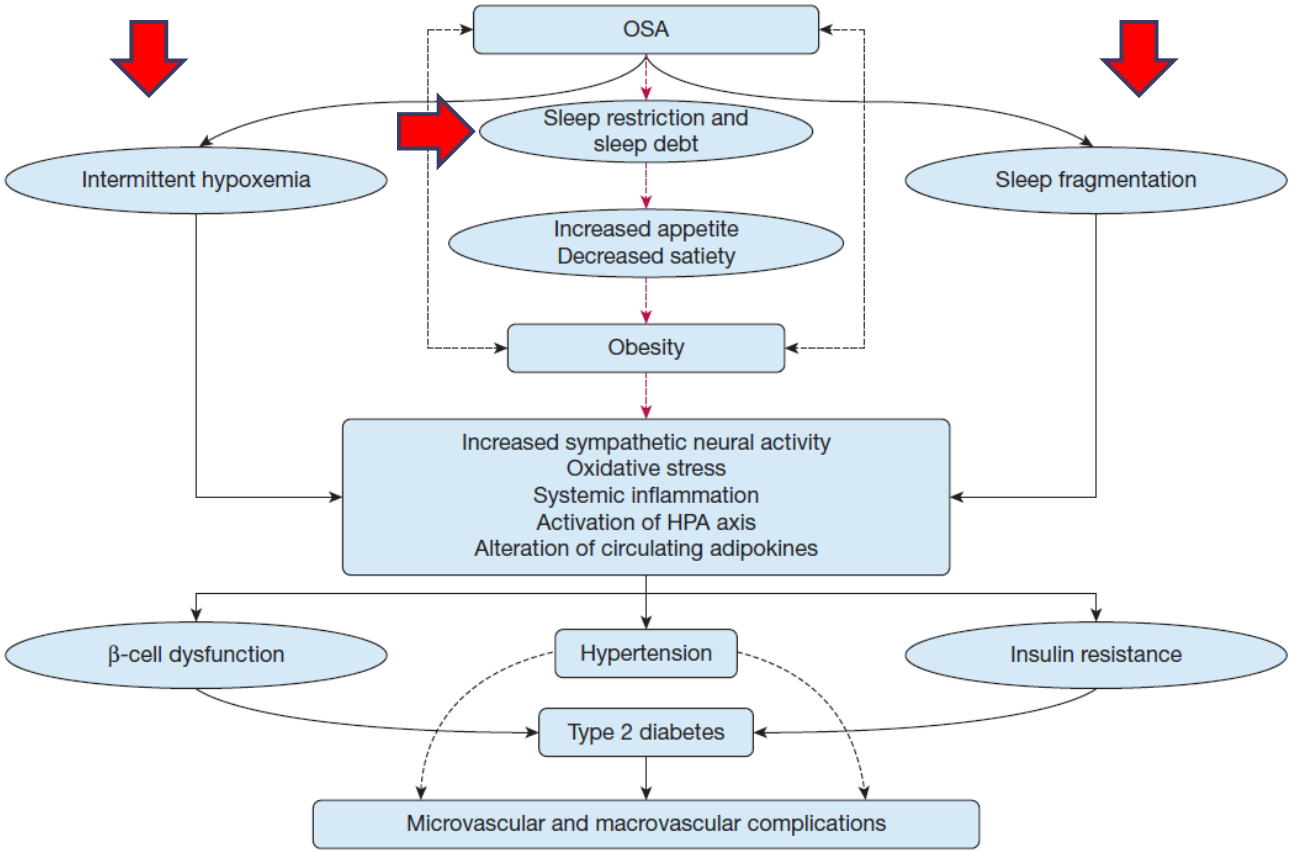
Συχνότητα ΣΥΑ σε ασθενείς με ΣΔ τύπου 2




Spiegel et al
5 nights of 4 h bedtimes
N = 11, IVGTT
Nedeltcheva et al
14 nights of 5.5 h bedtimes
N = 11, IVGTT
Buxton et al
7 nights of 5 h bedtimes
N = 20, IVGTT
Broussard et al
4 nights of 4.5 h bedtimes
N = 7, IVGTT
Cedernaes et al
1 night of 4.25 h bedtime
N = 16, fasting HOMA
Donga et al
1 night of 4 h bedtime
N = 9, hyperinsulinemic clamp
Stamatakis et al
2 nights of sleep fragmentation
N = 11, IVGTT
Tasali et al
3 nights of SWS suppression
N = 9, IVGTT
Herzog et al
1 night of SWS suppression
N = 16, OGTT
Louis et al
5 h of intermittent hypoxia
N = 13, IVGTT
Percent Reduction in Insulin Sensitivity (%)
0
−5
−10
−15
−20
−25
−30
−24%
−18%
−20%
−16%
−16%
−20%
−25%
−25%
−20%
−17%
Sleep Restriction
Sleep Fragmentation
Hypoxia

Chest 2017

ΣΑΥΥ και ΣΔ τύπου 2



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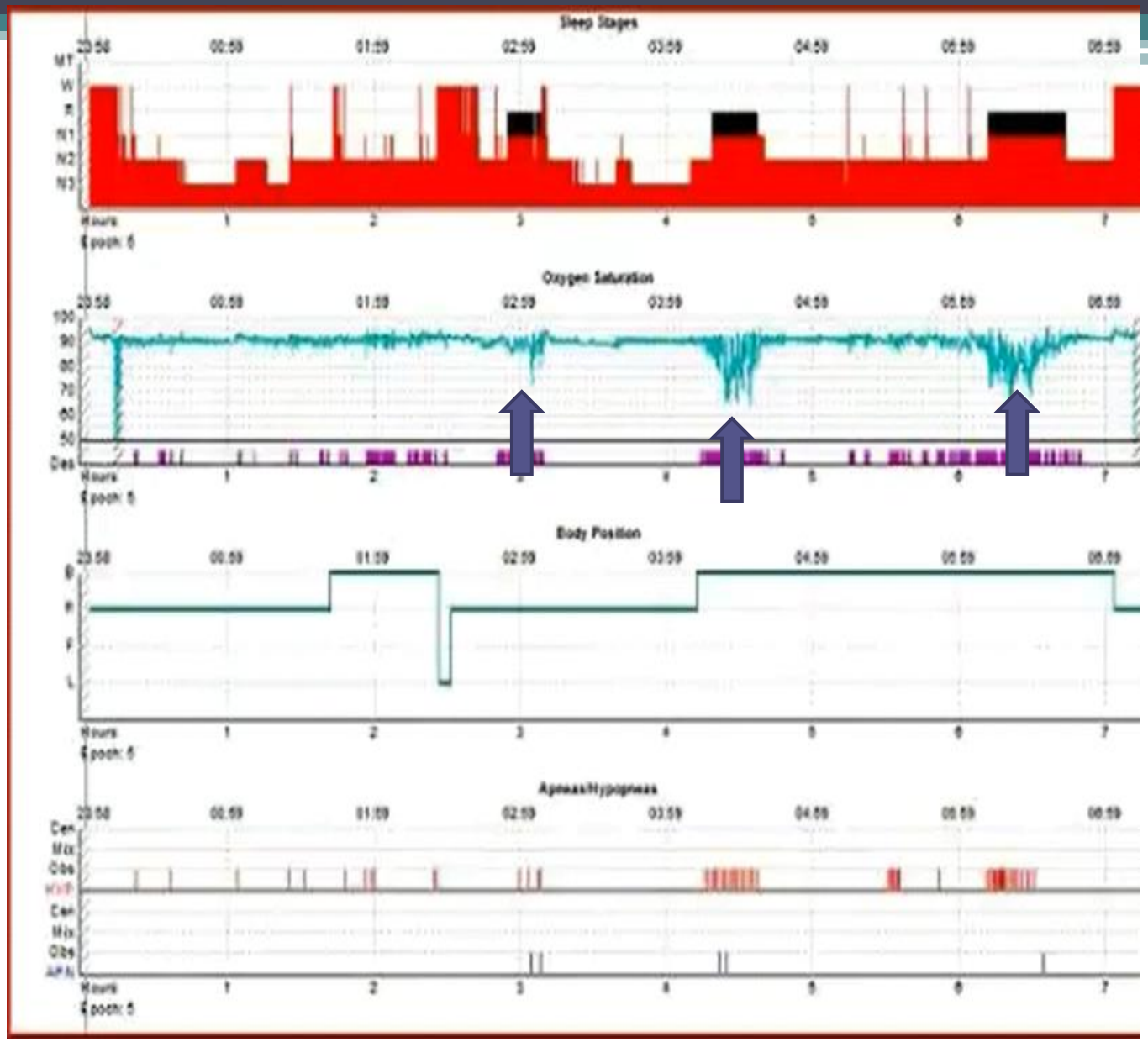
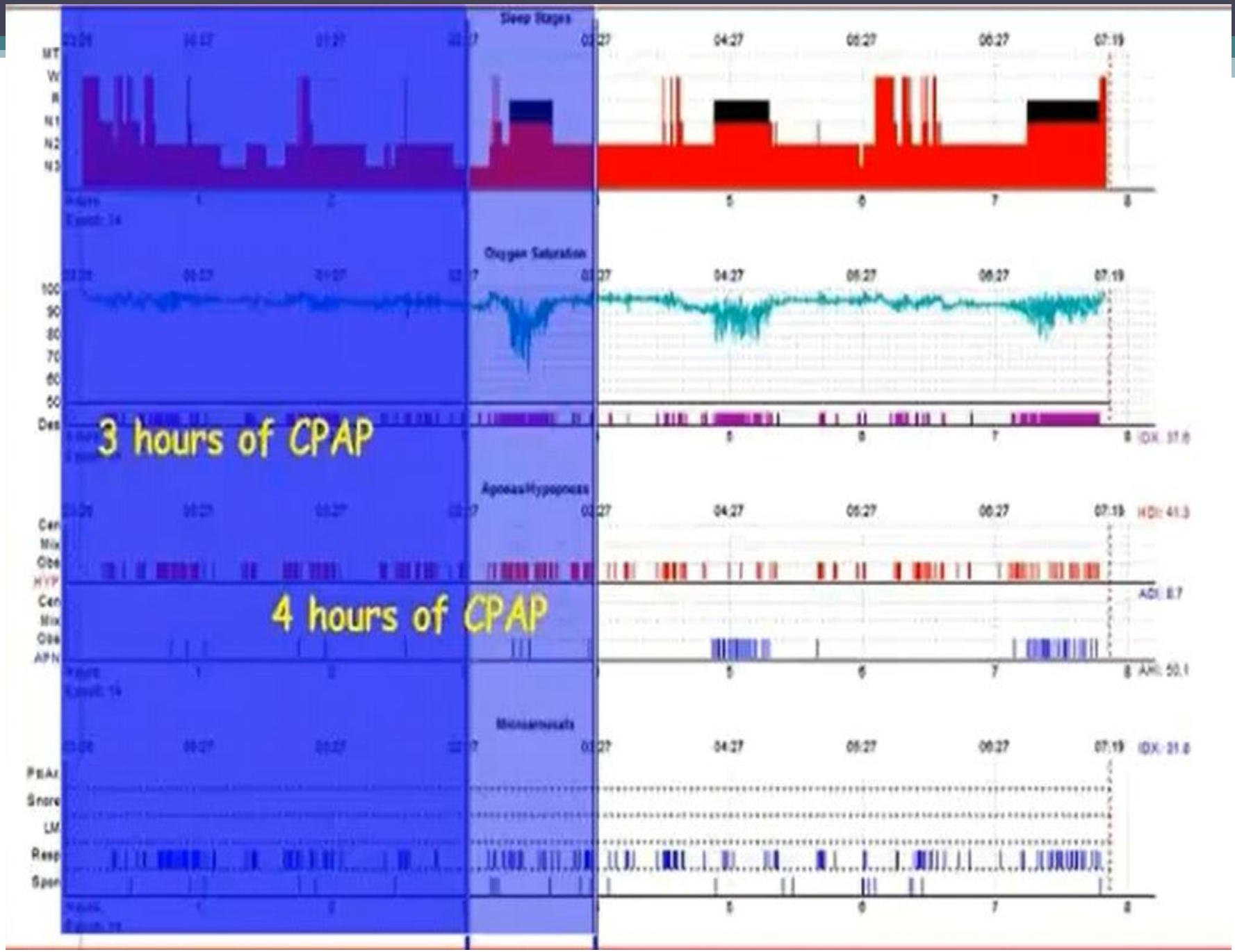
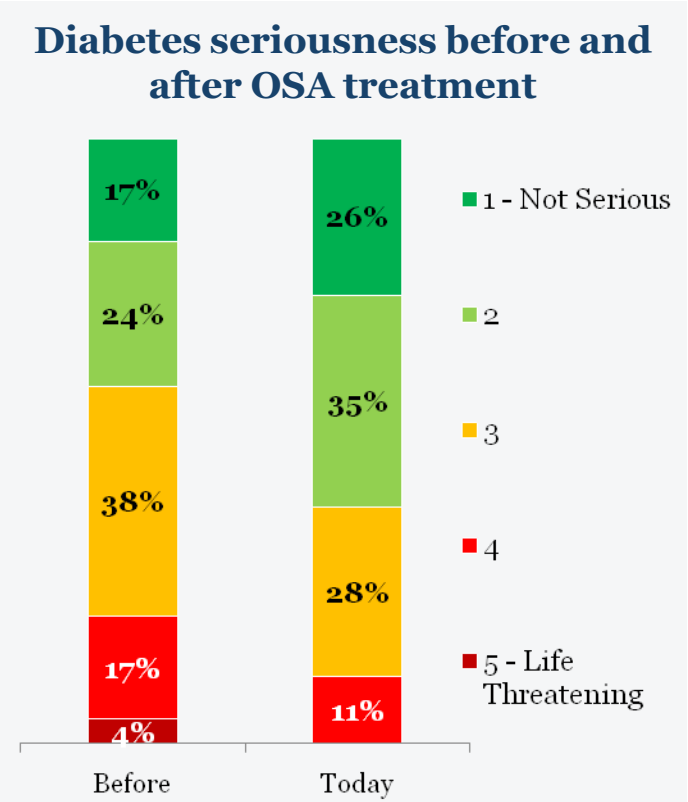
CHEST 2017; ■(■):■-■

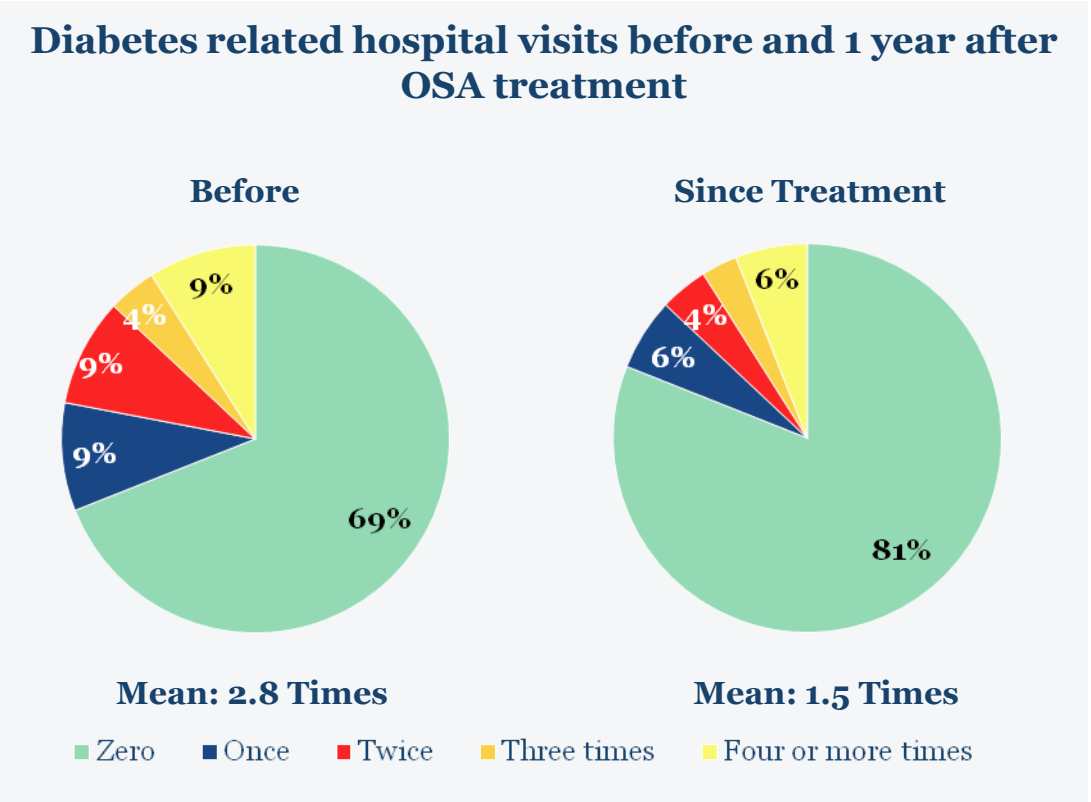

Sleep Stages
Oxygen Saturation
Body Position
Apneas/Hypopneas


Sleep Stages
Oxygen Saturation
3 hours of CPAP
Apneas/Hypopneas
4 hours of CPAP
Miscellaneous

Diabetes Severity

Before and after sleep apnea treatment





Base: n=111 (Percentages under 3% are not shown for transparency).

- Η θεραπεία της υπνικής άπνοιας με CPAP ή ενδοστοματικά προθέματα δεν βελτιώνει την αρτηριακή υπέρταση ούτε μπορεί να βελτιώσει θετικά των αριθμό και την δοσολογία των χορηγούμενων αντιυπερτασικών φαρμάκων

ΛΑΘΟΣ

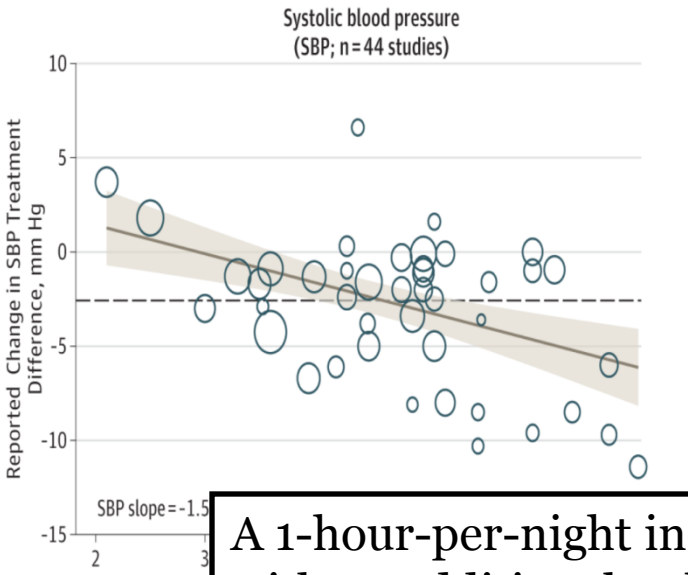
Υπάρχει βελτίωση αρκεί η χρήση της συσκευής CPAP να είναι ορθή (ρυθμίσεις, χρόνος εφαρμογής)

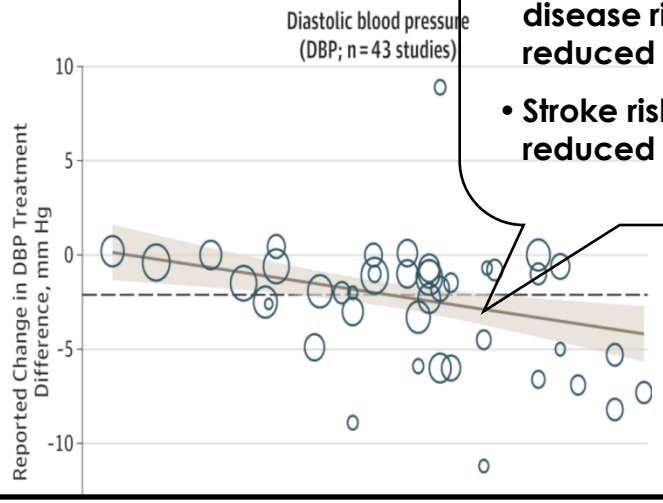
From: **CPAP vs Mandibular Advancement Devices and Blood Pressure in Patients With Obstructive Sleep Apnea: A Systematic Review and Meta-analysis**

JAMA. 2015;314(21):2280-2293. doi:10.1001/jama.2015.16303

Average 10 mm Hg reduction in BP predicts:

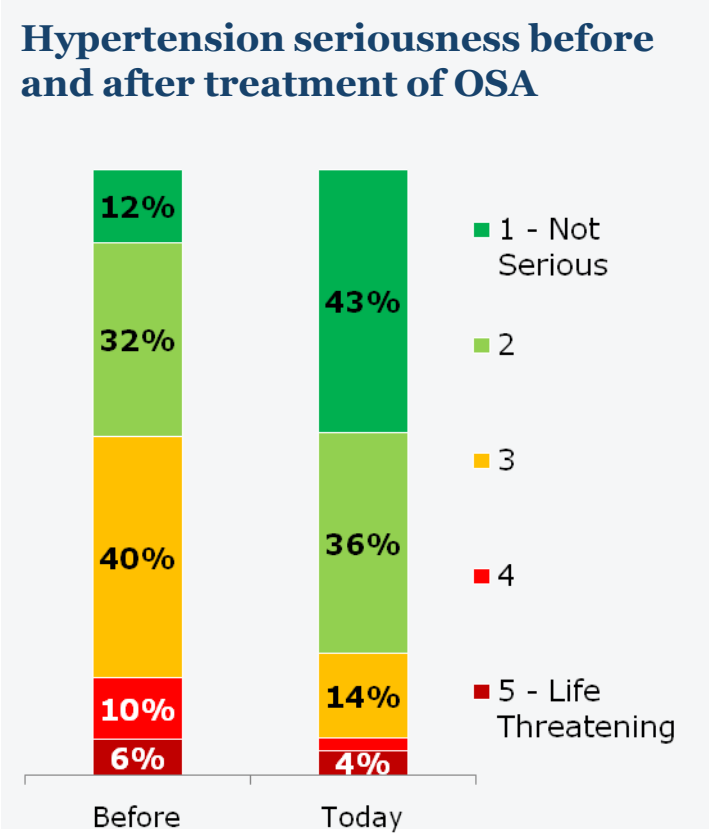
- **Coronary artery disease risk reduced by 37%**
- **Stroke risk reduced by 56%**

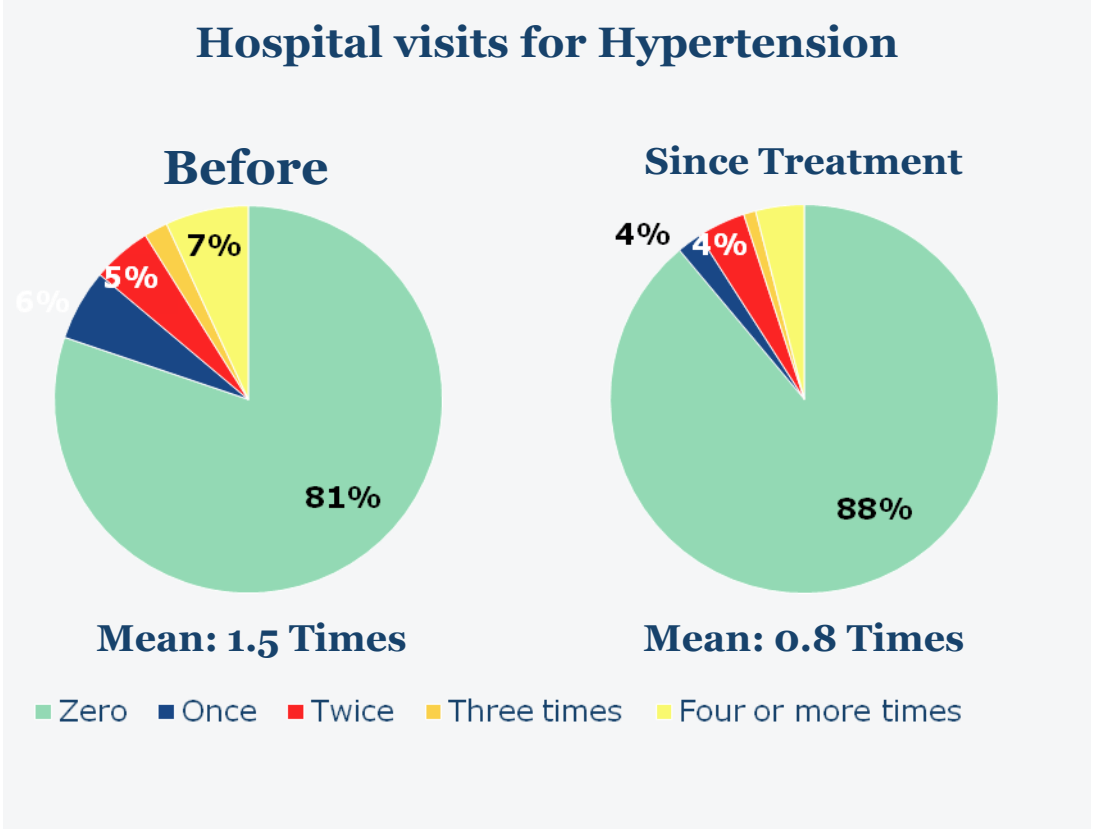




A 1-hour-per-night increase in mean CPAP use was associated with an additional reduction in SBP of 1.5 mm Hg (95% CI, 0.8 to 2.3 mm Hg; $P < .001$) and an additional reduction in DBP of 0.9 mm Hg (95% CI, 0.3 to 1.4 mm Hg; $P = .001$).

Hypertension Severity
Before and after sleep apnea treatment





Base: n=288 (Percentages under 3% are not shown for transparency).

JCSM
Journal of Clinical Sleep Medicine

JCSM Journal Club summarizes new clinical evidence related to Sleep Medicine from a number of journals. It is a recurring feature of the Journal. The editorial staff regularly assesses newly published medical literature related to Sleep Medicine and features papers that are important for Sleep Medicine clinicians.

http://dx.doi.org/10.5664/jcsm.2426

CPAP and Hypertension in Nonsleepy Patients

Commentary on Barbe F, Duran-Cantolla J, Sanchez-de-la-Torre M, et al. Effect of continuous positive airway pressure on the incidence of hypertension and cardiovascular events in nonsleepy patients with obstructive sleep apnea: a randomized controlled trial. JAMA 2012;307:2161-2168.

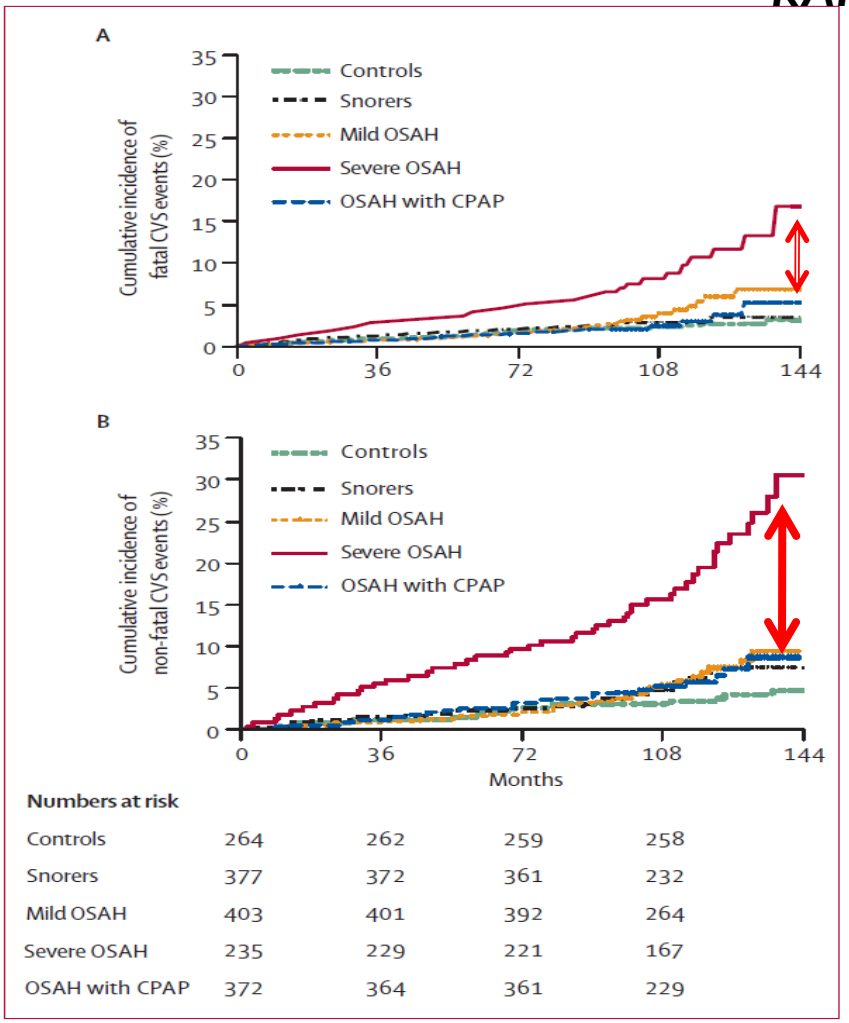
Barbara Phillips, M.D., M.S.P.H., F.A.A.S.M.[1]; Shirin Shafazand, M.D., M.S., F.A.A.S.M.[2]

My take on this paper is that CPAP works, sort of like birth control pills do. You have to use it. And it's important to remember that sleep apnea is a multi-organ disease. Cardiovascular consequences are important, but OSA is associated with many other consequences, including Metabolic Syndrome, cerebrovascular accidents, cognitive dysfunction, motor vehicle crash, mood disturbance, and death. To decide that CPAP shouldn't be used in nonsleepy patients on the basis of this study disregards the likely benefits of CPAP for many other conditions.

- Η σοβαρή υπνική άπνοια δεν σχετίζεται με θανατηφόρα και μη καρδιαγγειακά επεισόδια

ΛΑΘΟΣ

ΚΑΡΔΙΟΑΓΓΕΙΑΚΑ ΕΠΕΙΣΟΔΙΑ ΚΑΙ ΣΑΥΥ



Numbers at risk

Controls	264	262	259	258
Snorers	377	372	361	232
Mild OSAH	403	401	392	264
Severe OSAH	235	229	221	167
OSAH with CPAP	372	364	361	229

Figure 2: **Cumulative percentage of individuals with new fatal (A) and non-fatal (B) cardiovascular events in each of the five groups studied**

Marin J et al. Lancet 2005;365:1046-53

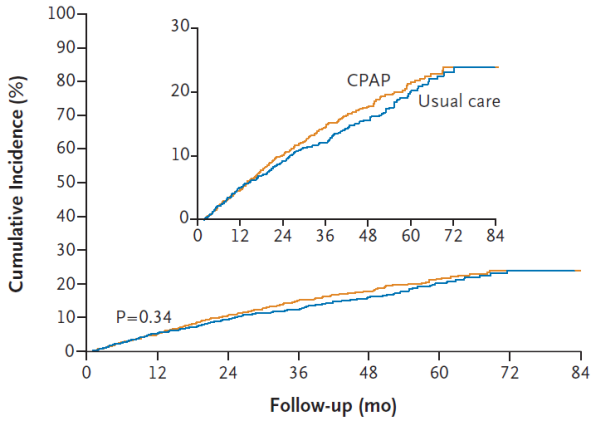
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

CPAP for Prevention of Cardiovascular Events in Obstructive Sleep Apnea

CONCLUSIONS

Therapy with CPAP plus usual care, as compared with usual care alone, did not prevent cardiovascular events in patients with moderate-to-severe obstructive sleep apnea and established cardiovascular disease. (Funded by the National Health and Medical Research Council of Australia and others; SAVE ClinicalTrials.gov number, NCT00738179; Australian New Zealand Clinical Trials Registry number, ACTRN12608000409370.)



The diagnosis of moderate-to severe OSA was defined as an oxygen desaturation index (≥4 percentage points from baseline) of at least 12, and was established with the use of a home sleep study screening device (ApneaLink, ResMed)

Participants in the SAVE study who were assigned to CPAP adhered to the treatment for a mean of 3.3 hours per night over several years,

NEJM 2016

EDITORIAL

Screening for Obstructive Sleep Apnea
Implications for the Sleep Health of the Population

Susan Redline, MD, MPH

The observational data are therefore consistent with a link between OSA and adverse cardiovascular outcomes and mortality. Although the USPSTF identified inconsistencies in associations between study outcomes and apnea-hypopnea index, other sleep metrics that characterize OSA severity, such as hypoxemia and arousal frequency, may provide superior prediction for important outcomes, such as sudden cardiac death and hypertension, respectively.[14,15] In addition, the relationship between hours of continuous positive airway pressure (CPAP) use and change in health parameters provides dose-response information. Studies of blood pressure, sleepiness, and quality of life demonstrate dose-response associations between CPAP adherence level and clinical outcomes,[16] providing evidence that health benefits increase in proportion to the degree to which OSA is suppressed.

Redline S. US Redline S. US Preventive Services Task Force. *JAMA*. 2017;317:407-414

JCSM
Journal of Clinical Sleep Medicine

LETTERS TO THE EDITOR

Making Dollars and Sense of SAVE

Emerson M. Wickwire, PhD, FAASM

Department of Psychiatry and Sleep Disorders Center, Division of Pulmonary and Critical Care Medicine, Department of Medicine, University of Maryland School of Medicine, Baltimore, Maryland

men.[2] Although positive airway pressure therapy (PAP) is a highly effective treatment when used, the challenges associated with PAP adherence are well documented. In the Sleep Apnea Cardiovascular Endpoints (SAVE) trial, PAP adherence was particularly low (ie, mean use was only 3.3 hours, and only 42% of users used PAP > 4 hours on ≥ 70% of nights), making it impossible to determine whether greater PAP usage might have improved cardiovascular outcomes.[3] In addition to high-

CHEST

Impact of OSA on Cardiovascular Events After Coronary Artery Bypass Surgery

Carlos Henrique G. Uchôa, PT; Naury de Jesus Danzi-Soares, PhD, RN; Flávia S. Nunes, MD, PhD; Altay A. L. de Souza, PhD; Flávia B. Nerbass, PT; Rodrigo P. Pedrosa, MD, PhD; Luiz Antonio M. César, MD, PhD; Geraldo Lorenzi-Filho, MD, PhD; and Luciano F. Drager, MD, PhD

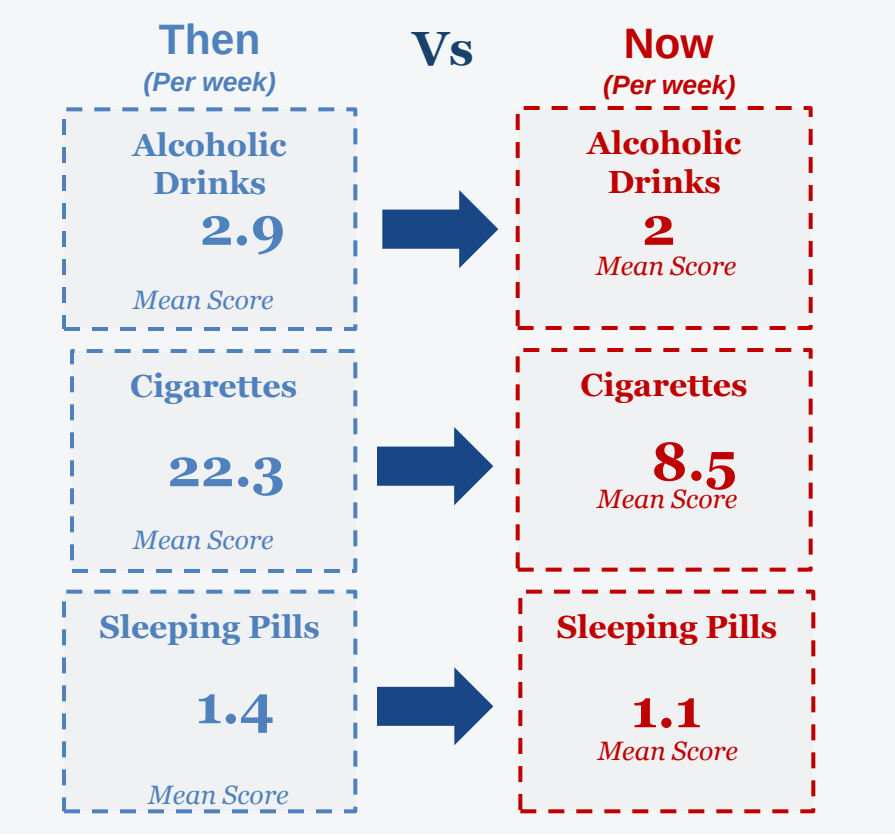
CONCLUSIONS: OSA is independently associated with a higher rate of long-term cardiovascular events after CABG and may have prognostic and economic significance in CABG surgery.

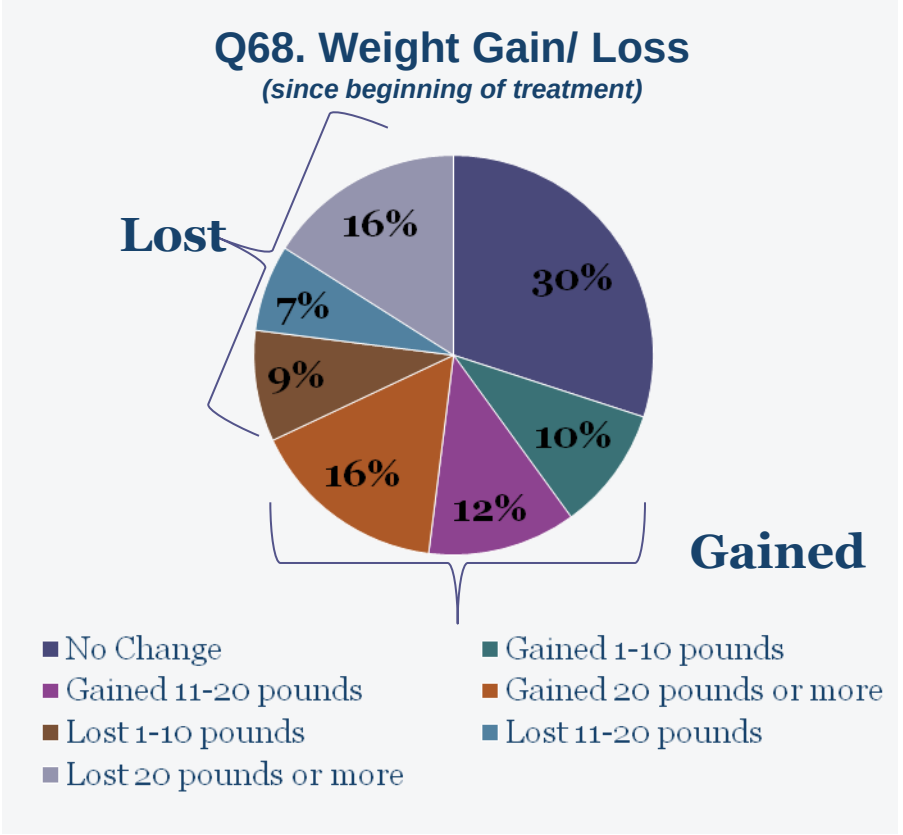
CHEST 2015; 147(5):1352-1360

To maximize the effect on public health and ensure the availability of sleep medicine services, sleep medicine specialists must (1) provide excellent, patient-centered, outcomes-driven clinical care; (2) differentiate care provided by sleep specialists from nonspecialists; and (3) understand, demonstrate, and articulate the value of sleep specialty care. A health economic perspective is central to achieving each of these objectives.

Substance Abuse and Weight

Before and after sleep apnea treatment





Q62-Q67. Before treatment how many cigarettes/ alcoholic drinks/ sleeping pills did you smoke/ drink/ take on average per week? And how many since treatment?

- Σε ασθενείς με κολπική μαρμαρυγή η αντιμετώπιση η υπνικής άπνοιας είναι σημαντική

ΝΑΙ

- Η μη αντιμετώπιση της υπνικής άπνοιας οδηγεί σε υποτροπή της κολπικής μαρμαρυγής ανεξάρτητα του τρόπου θεραπείας

JCSM
Journal of Clinical Sleep Medicine

SPECIAL ARTICLE

Clinical Guideline for the Evaluation, Management and Long-term Care of Obstructive Sleep Apnea in Adults

Adult Obstructive Sleep Apnea Task Force of the American Academy of Sleep Medicine

Task Force Members: Lawrence J. Epstein, M.D.[1](Chair); David Kristo, M.D.[2]; Patrick J. Strollo, Jr., M.D.[2]; Norman Friedman, M.D.[3]; Atul Malhotra, M.D.[4]; Susheel P. Patil, M.D., Ph.D.[5]; Kannan Ramar, M.D.[6]; Robert Rogers, D.M.D.[7]; Richard J. Schwab, M.D.[8]; Edward M. Weaver, M.D., M.P.H.[9]; Michael D. Weinstein, M.D.[10]

Table 2—Patients at High Risk for OSA Who Should Be Evaluated for OSA Symptoms

Obesity (BMI > 35)
Congestive heart failure
Atrial fibrillation
Treatment refractory hypertension
Type 2 diabetes
Nocturnal dysrhythmias
Stroke
Pulmonary hypertension
High-risk driving populations
Preoperative for bariatric surgery

Table 3—Questions about OSA that Should Be Included in Routine Health Maintenance Evaluations

Is the patient obese?
Is the patient retrognathic?
Does the patient complain of daytime sleepiness?
Does the patient snore?
Does the patient have hypertension?

Europace (2014) **16**, 1309–1314
doi:10.1093/europace/euu066

Efficacy of catheter ablation of atrial fibrillation in patients with obstructive sleep apnoea with and without continuous positive airway pressure treatment: a meta-analysis of observational studies

Li Li[1]*, Zeng-wu Wang[2], Jie Li[1], Xing Ge[1], Li-zhu Guo[1], Ying Wang[1], Wei-hua Guo[1], Chen-xi Jiang[3], and Chang-sheng Ma[1,3]*

What's new?

- Among patients with AF and OSA:
- The obstructive sleep apnoea (OSA) patients had a 31% greater risk of atrial fibrillation (AF) recurrence after successful catheter ablation than did the non-OSA patients.
- This risk of AF recurrence increased by 57% in patients who did not undergo continuous positive airway pressure (CPAP) therapy.
- Patients who underwent CPAP therapy had a risk of AF recurrence similar to that of the non-OSA patients.

Methods and results We performed an online search and identified five studies involving 3743 patients with AF. Patients with OSA had a 31% greater risk of AF recurrence after catheter ablation than did patients without OSA [relative ratio (RR) = 1.31, $P = 0.00$], and this risk increased by 57% in patients with OSA not undergoing CPAP therapy (RR = 1.57, $P = 0.00$). However, CPAP users had a risk of AF recurrence similar to that of patients without OSA (RR = 1.25, $P = 0.37$), and this similarity was maintained even after the removal of study heterogeneity (RR = 0.99, $P = 0.39$).

Conclusion Obstructive sleep apnoea was associated with AF recurrence after catheter ablation. The efficacy of catheter ablation for AF was similar between patients without OSA and patients with OSA undergoing CPAP treatment.

- Η εμφάνιση και βαρύτητα της υπνηλίας εξαρτάται από το αριθμό απνοιών και υποπνοιών ανά ώρα ύπνο (AHI)

ΛΑΘΟΣ

Στην ιατρικής θεραπεύουμε ανθρώπους και όχι αριθμούς

Eur Respir J 2011; 38: 7–8
DOI: 10.1183/09031936.00177010

EDITORIAL

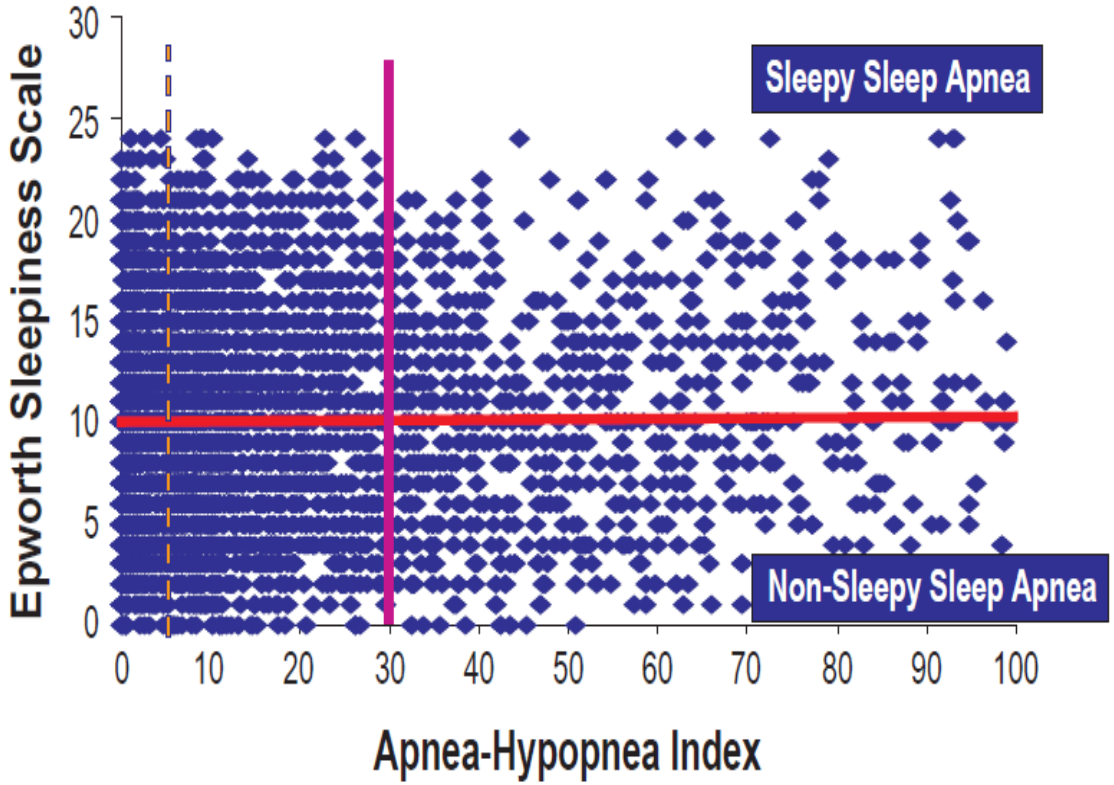
What is this thing called somnolence?

D. Rodenstein

In 1929, Cole Porter composed, for a musical comedy, a song called ''What Is This Thing Called Love?'', which became a great classic in jazz music [1]. The musical

Sleepiness is a perceived sensation. It is not the only one. Thirst is the perceived sensation of the need to drink. The physiology of thirst is perfectly understood, the mechanisms are known, and the afferent and efferent pathways are well identified. Yet, physiology alone can't explain why the intensity of thirst will differ between two individuals with the same physiological status. Beliefs on hydration effects may impact actual drinking

Figure 2—The relationship between self-reported sleepiness and sleep apnea.



Luyster FS; Buysse DJ; Strollo PJ. *J Clin Sleep Med* 2010

Κλινική εικόνα (το σύνδρομο **με τα χίλια πρόσωπα**)

- **ΗΜΕΡΗΣΙΑ ΣΥΜΠΤΩΜΑΤΑ**

Υπνηλία
Κόπωση
Αίσθηση μη αναζωογονητικού ύπνου
Μείωση μνήμης - συγκέντρωσης
Διαταραχή συναισθήματος
Πρωινή κεφαλαλγία
Σεξουαλικές διαταραχές

ΝΥΚΤΕΡΙΝΑ ΣΥΜΠΤΩΜΑΤΑ

Ροχαλητό
Διακοπές αναπνοής
Αφύπνιση με αίσθημα πνιγμονής
Ανήσυχος ύπνος
Πολλαπλές αφυπνίσεις
Πολλαπλή νυκτερινή ούρηση
Συμπτωματολογία ΓΟΠ
Ξηρότητα στόματος κατά την έγερση
Εφιδρώσεις
Κεφαλαλγία κατά τον ύπνο
Αϋπνία

- Μπορεί κανείς να πεθάνει λόγω κατά τον ύπνο λόγω μη θεραπευόμενης υπνικής άπνοιας ??

“Don’t ever go to sleep. Too many people die there.”

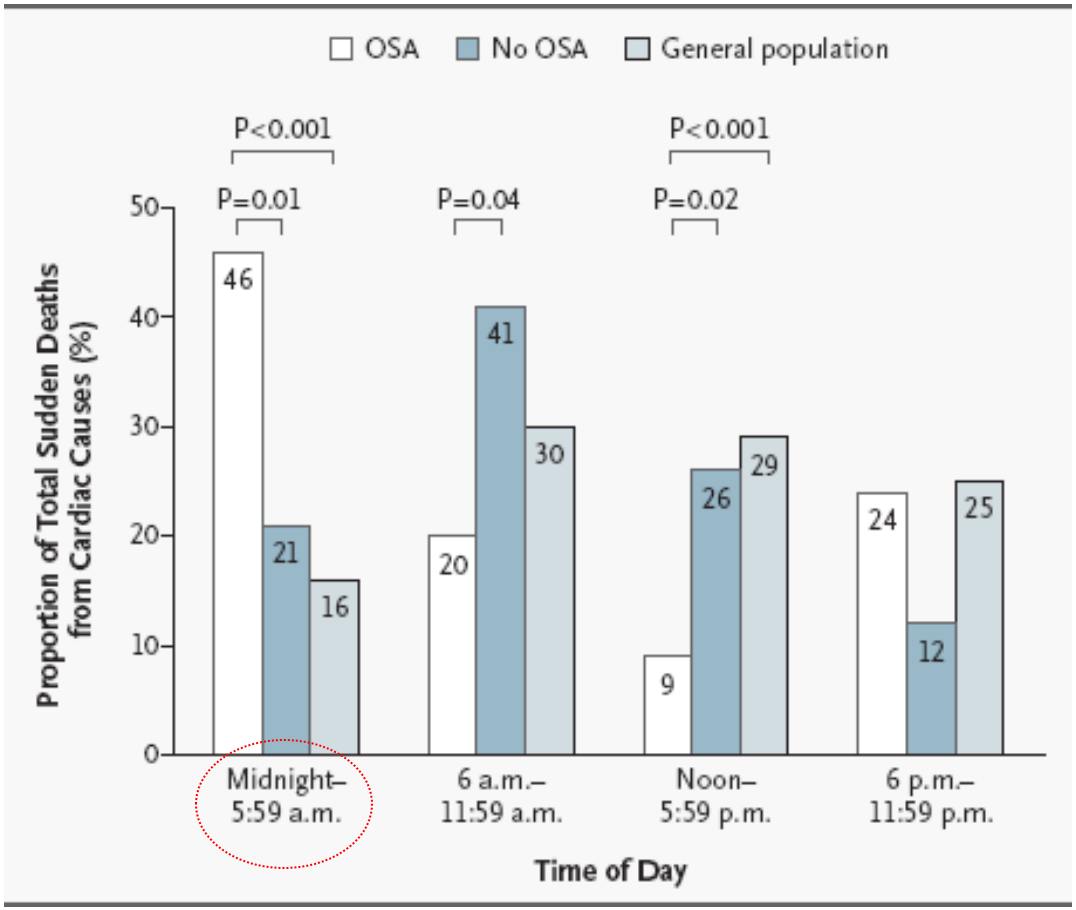
Mark Twain

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Day–Night Pattern of Sudden Death in Obstructive Sleep Apnea

Apoor S. Gami, M.D., Daniel E. Howard, B.S., Eric J. Olson, M.D., and Virend K. Somers, M.D., Ph.D.



Gami et al. NEJM 2005;352:1206-14

A recent article in the Washington Post raised questions regarding the cause of Justice Scalia's death.

It is known that he died in his sleep and that he had several ongoing health conditions.

According to the sheriff's report, he was found lying in bed, with his arms by his side.

A CPAP device was on the nightstand next to him, but it was unplugged and not turned on. It was assumed that he did not use it on that particular night, and the article raised the question of whether not using the CPAP may have directly contributed to or even caused his death.

Did Skipping CPAP Contribute to Justice Scalia's Sudden Death?

- Η υπνική άπνοια είναι συχνότερη σε ασθενείς με **αυτοάνοσα νοσήματα** και η αντιμετώπιση της είναι αναγκαία

ΝΑΙ

SLEEP-DISORDERED BREATHING

Management and Risk Reduction of Rheumatoid Arthritis in Individuals with Obstructive Sleep Apnea: A Nationwide Population-Based Study in Taiwan

Wei-Sheng Chen, MD[1,7]; Yu-Sheng Chang, MD[4]; Chi-Ching Chang, MD[2,3]; Deh-Ming Chang, MD, PhD[1,7,8]; Yi-Hsuan Chen, MD[5]; Chang-Youh Tsai, MD, PhD[1,*]; Jin-Hua Chen, PhD[6,*]

Significance

In the current study, evaluation of data from the largest cohort used to investigate epidemiological associations between OSA and the development of autoimmune diseases demonstrated that the presence of OSA is associated with higher risk for development of rheumatoid arthritis, Sjögren syndrome, and Behçet disease and that management of OSA may reduce the risk of RA.

SLEEP 2016;39(10):1883–1890.

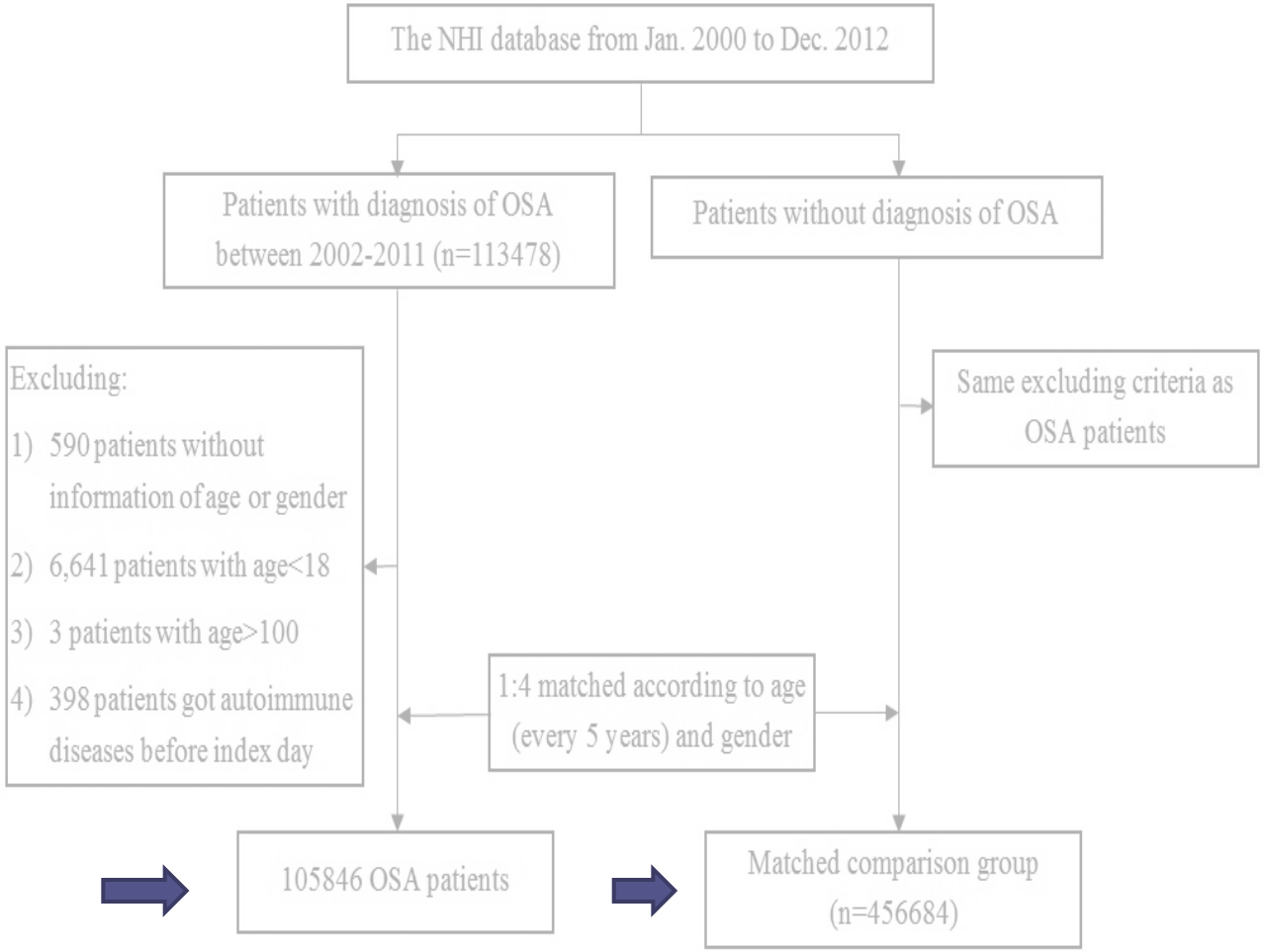


Figure 1—Study profile. NHI, National Health Insurance; OSA, obstructive sleep apnea.

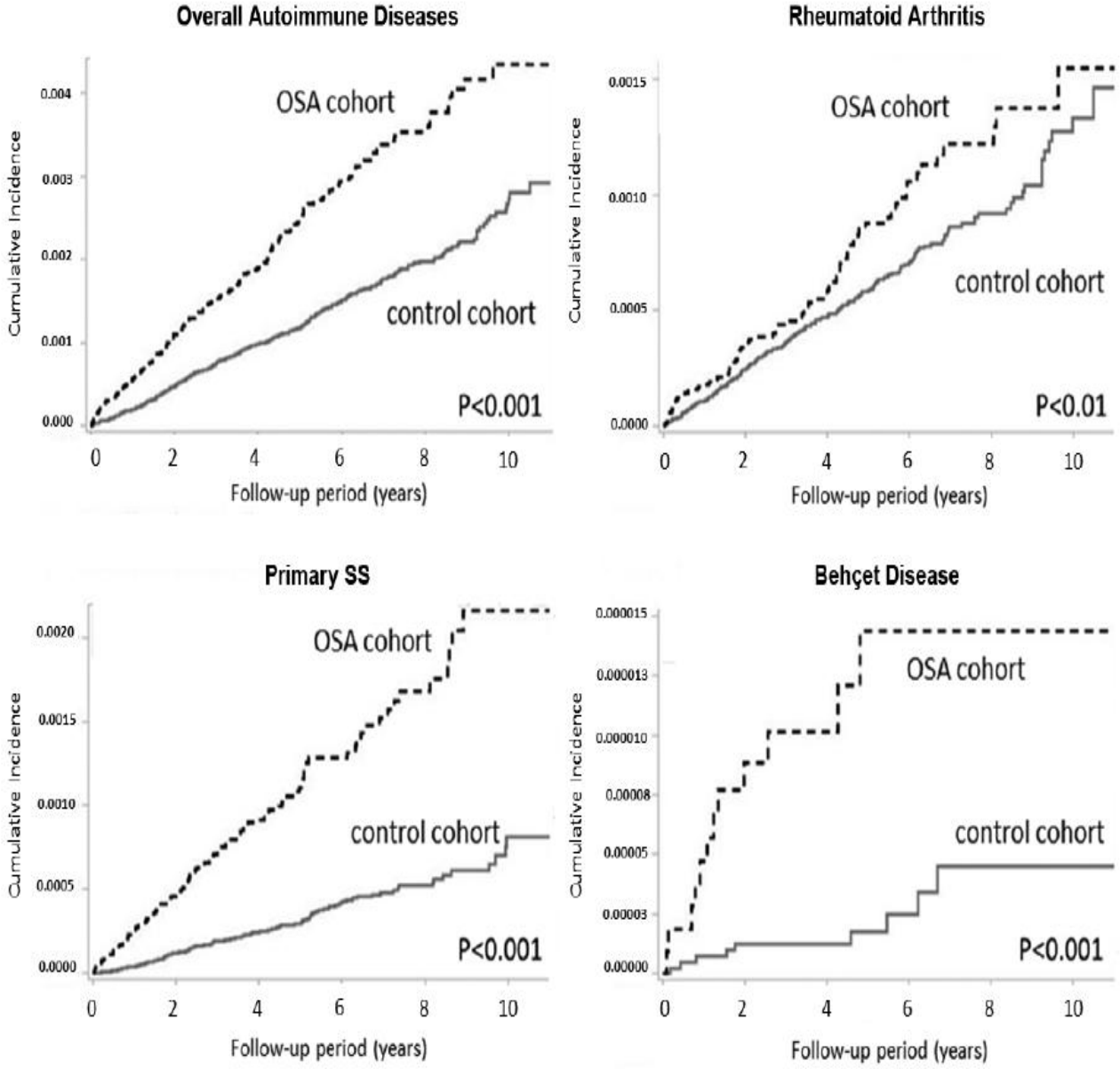


Figure 2—Kaplan-Meier plots of cumulative incidence of autoimmune diseases. OSA, obstructive sleep apnea; RA, rheumatoid arthritis; SS, Sjögren syndrome.

- Όλοι σχεδόν οι ασθενείς με καρδιακή ανεπάρκεια έχουν υπνική άπνοια (αποφρακτικού ή κεντρικού τύπου)

ΛΑΘΟΣ

Circulation Journal
Official Journal of the Japanese Circulation Society
http://www.j-circ.or.jp

REVIEW

Cheyne-Stokes Respiration in Chronic Heart Failure

– Treatment With Adaptive Servoventilation Therapy –

Olaf Oldenburg, MD

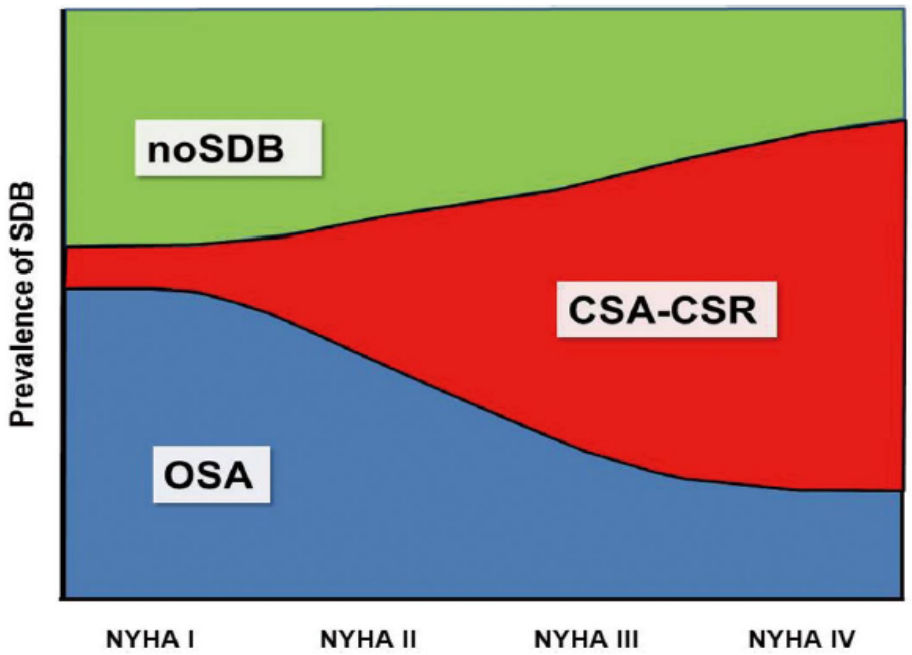
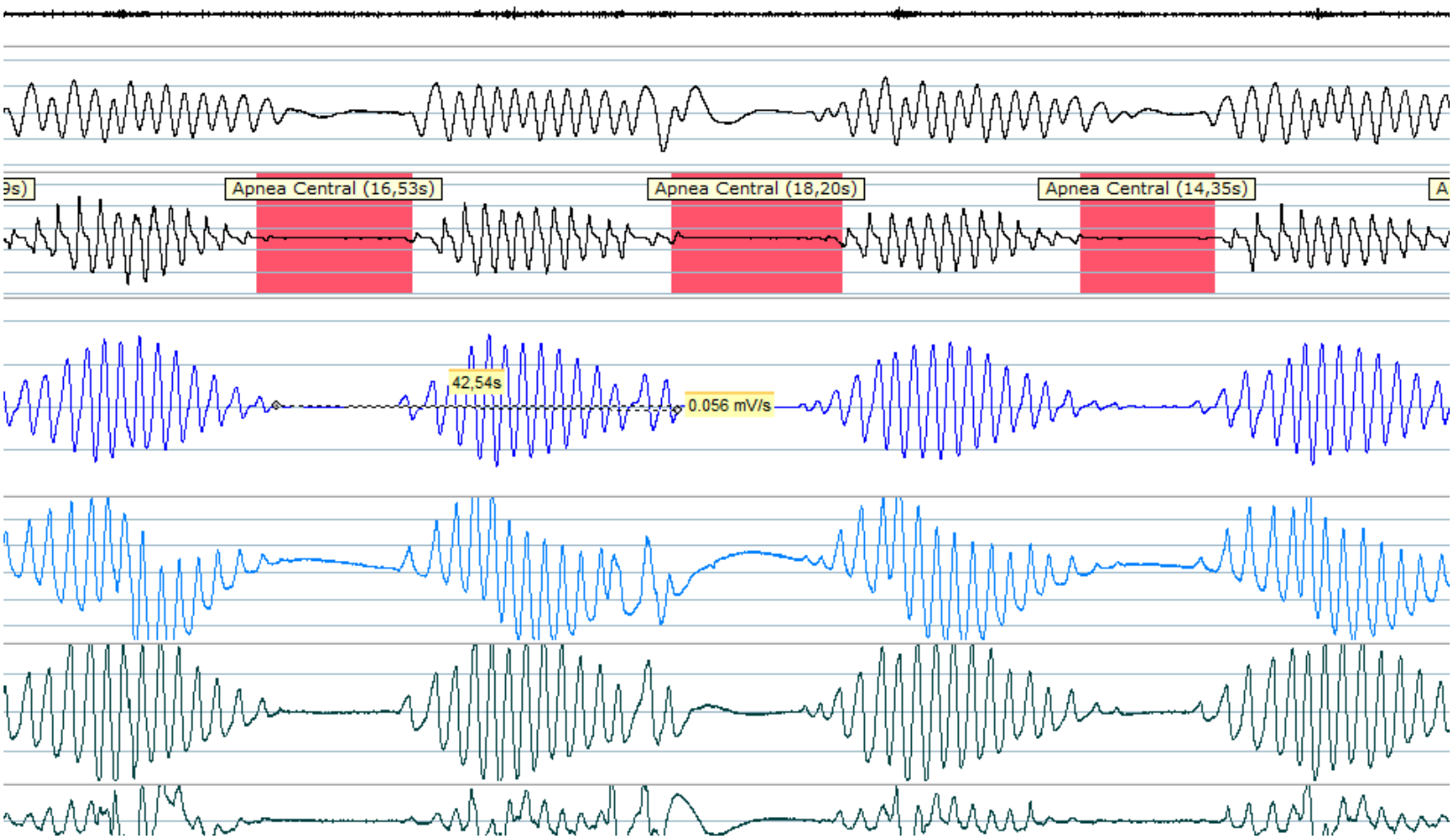
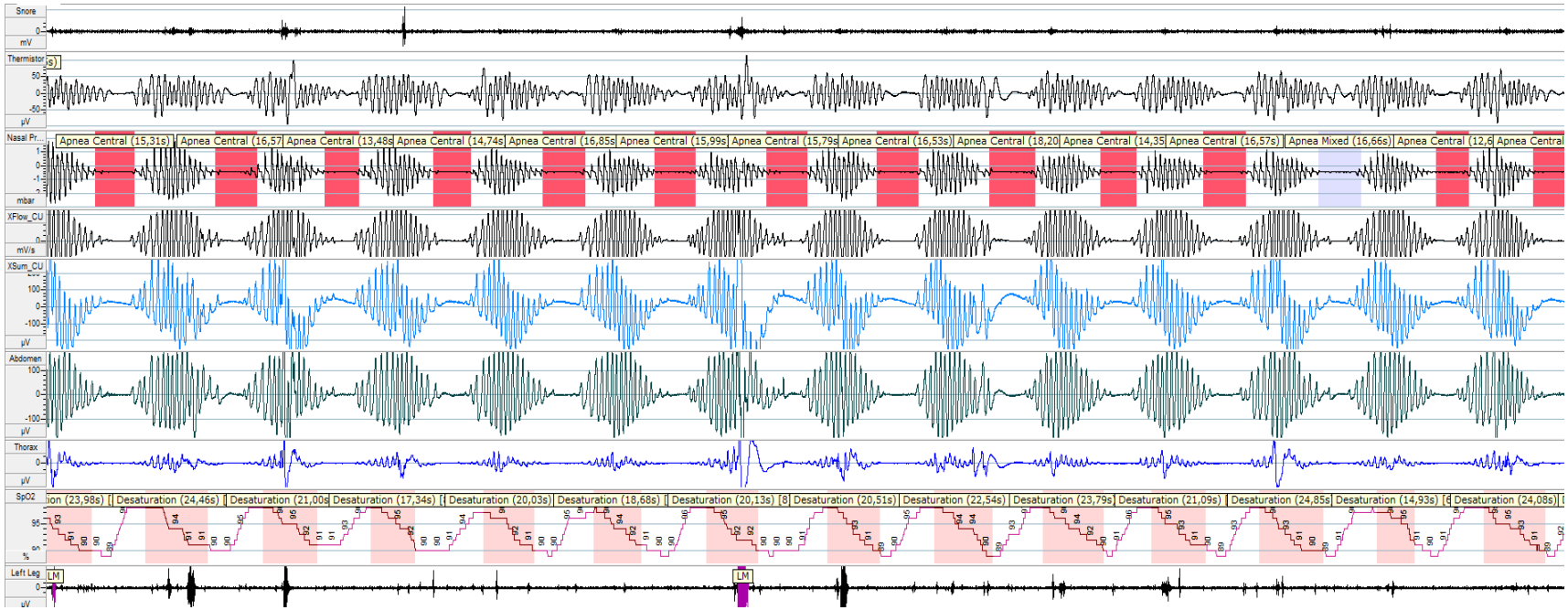


Figure 1. Scheme of the relative prevalence and importance of obstructive (OSA) and central sleep apnea (CSA) according to heart failure severity. With increasing impairment in cardiac function there is an increase in CSA prevalence. NYHA, New York Heart Association class.

Circulation J 2012


Apnea Central (16,53s)
Apnea Central (18,20s)
Apnea Central (14,35s)
42,54s
0.056 mV/s


Snore
mV
Thermistor
µV
Nasal Pr...
mbar
Apnea Central (15,31s)
Apnea Central (16,57
Apnea Central (13,48s
Apnea Central (14,74s
Apnea Central (16,85s
Apnea Central (15,99s
Apnea Central (15,79s
Apnea Central (16,53s)
Apnea Central (18,20
Apnea Central (14,35
Apnea Central (16,57s)
Apnea Mixed (16,66s)
Apnea Central (12,6
Apnea Central
XFlow_CU
mV/s
XSum_CU
µV
Abdomen
µV
Thorax
µV
SpO2
Desaturation (24,46s)
Desaturation (21,00s
Desaturation (17,34s)
Desaturation (20,03s)
Desaturation (18,68s)
Desaturation (20,13s)
Desaturation (20,51s)
Desaturation (22,54s)
Desaturation (23,79s
Desaturation (21,09s)
Desaturation (24,85s
Desaturation (14,93s)
Desaturation (24,08s)
%
Left Leg
µV
LM
LM

Cardiology Journal 2013, Vol. 20, No. 4

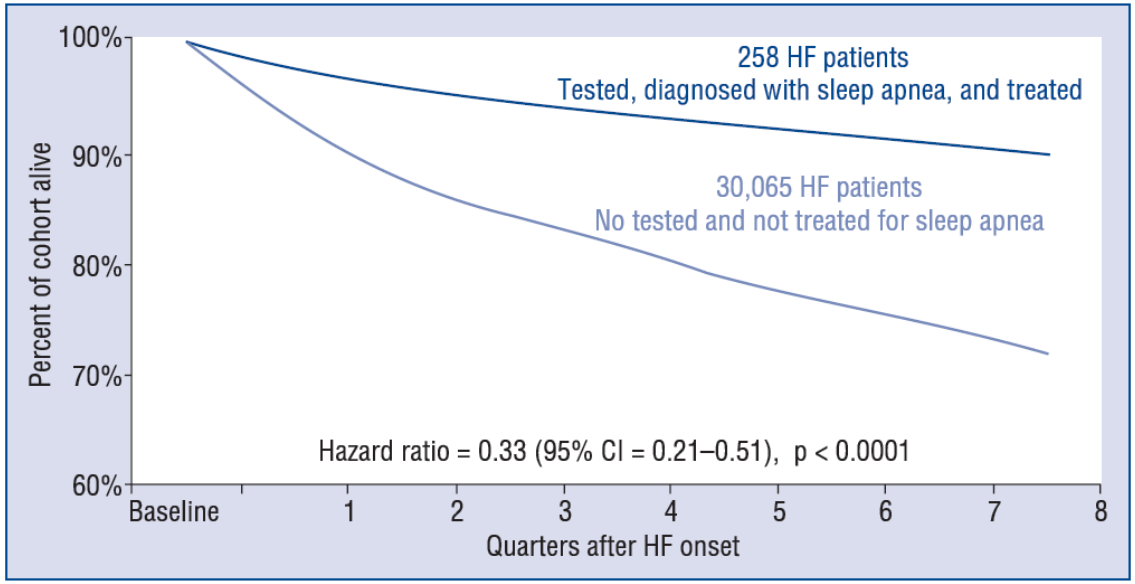
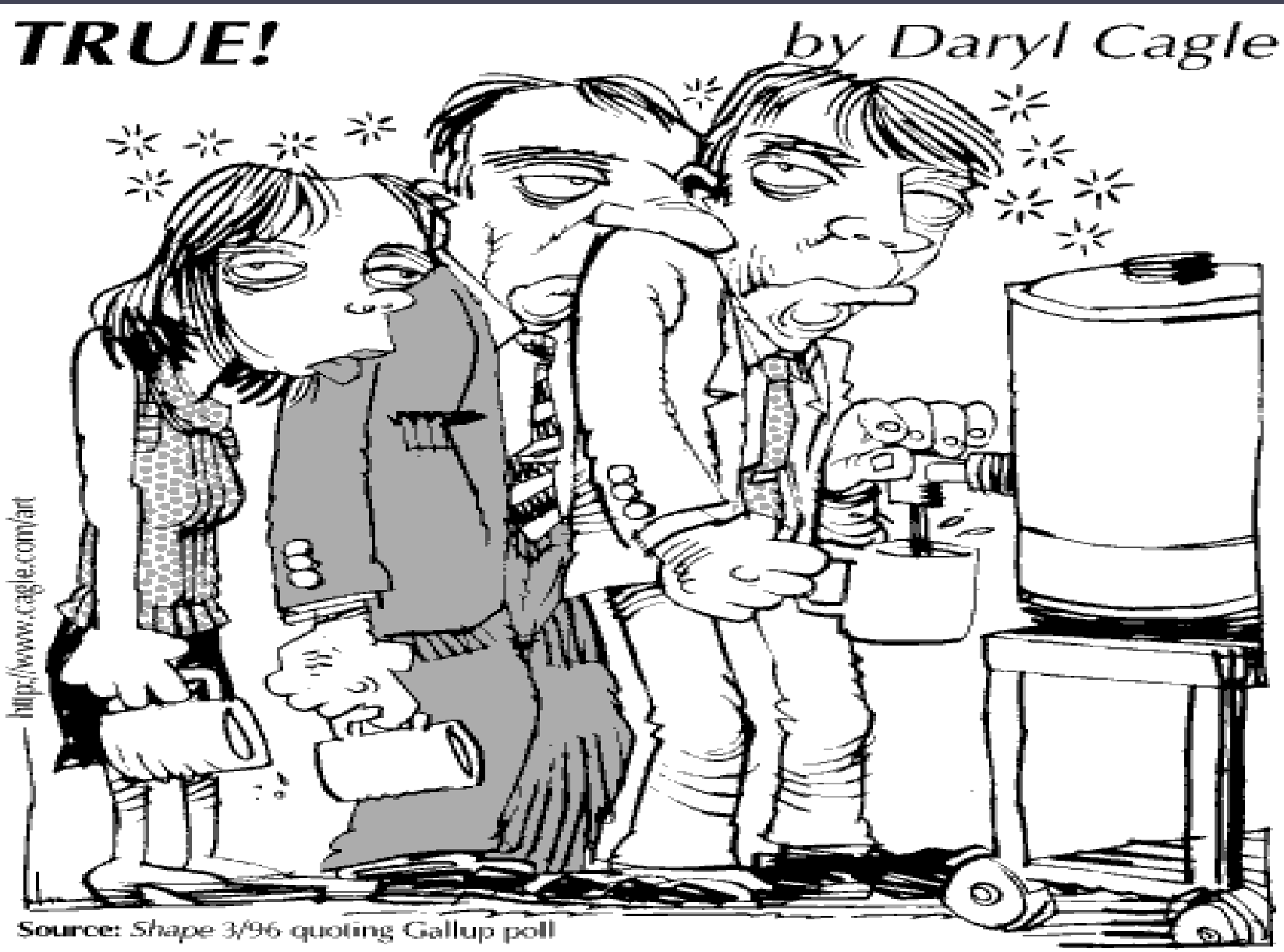


Figure 4. Kaplan-Maier survival curves, adjusted by age, gender, and Charlson Comorbidity Index, 2004–2005. Survival of heart failure (HF) patients diagnosed and treated for sleep apnea compared with the remaining patients who were not tested for sleep apnea. Modified from [5].

Javaheri S et al , Am J Respir Crit Care Med, 2011; 183: 539–546.


TRUE!
by Daryl Cagle
http://www.cagle.com/art
Source: Shape 3/96 quoting Gallup poll
Only 28 percent of us get eight or more hours of sleep per night.