

Supporting Bibliography:

Sleep Apnea and Cardiovascular Disease: An American Heart Association/American College of Cardiology Foundation Scientific Statement From the American Heart Association Council for High Blood Pressure Research Professional Education Committee, Council on Clinical Cardiology, Stroke Council, and Council on Cardiovascular Nursing
Circulation 2008, 118:1080-1111

In Collaboration with the National Heart, Lung, and Blood Institute National Center on Sleep Disorders Research (National Institutes of Health)

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(Above mentioned article describes the definitions, classifications, diagnosis, and pathophysiology of Obstructive sleep apnea. The epidemiology, clinical presentation and mechanisms of cardiovascular risks are discussed in details. In particular, the effect of treatment on cardiovascular endpoints is reviewed, supported by extensive clinical evidence. Notation by name of the sleep specialist/dentist)

Sleep-disordered breathing and cardiovascular Disease

Postgrad Med J 2008; 84:15-22 Amit Benjamin, K E Lewis

(40% of people with OSA have high blood pressure while awake//40-80% of people with non-controlled HTN have OSA//Sudden death from cardiac causes (between midnight and 6 am) occurred in 46% of pts with OSA vs 16% of general population//Heart Failure is 2.38 x more common in "mild-moderate OSA" then in "no OSA"//1983 Guilleminault et al.: 400 pts with OSA/48% had cardiac arrhythmias at night/2% sustained VT, 11% sinus arrest, 8% AV block, 19% PVC)

Oral Appliance Therapy Reduces Blood Pressure in Obstructive Sleep Apnea: a

Randomized, Controlled Trial. *Sleep*, 2004; 27:5, 934-941 Gotsopoulos et al

(MAS for OSA over 4 weeks results in a modest reduction in BP similar to that seen with CPAP)

Randomized study of three non-surgical treatments in mild to moderate obstructive sleep apnea. *Thorax* 2007; 62:354-359 Lam B. et al.

(No significant differences in the reduction in BP produced by these two treatments, with both treatments lowering the morning diastolic BP compared with baseline values)

Oral Appliance Impact on Oxidative Stress and Endothelial Dysfunction

CHEST 2007; 131:740 *(The OA may be a moderately effective long-term treatment for patients with OSA)*

Microvascular endothelial function in obstructive sleep apnea: Impact of continuous positive airway pressure and mandibular advancement

Sleep Medicine, 10:7, 746-752

W. Trzepizur, F. Gagnadoux, P. Abraham, P. Rousseau, N. Meslier, J. Saumet, J. Racineux
(This study shows an impairment of MVEF in OSAS related to OSAS severity. Both CPAP and MAD treatments were associated with an improvement in MVEF that could contribute to improve cardiovascular outcome in OSAS patients).

Effects of oral appliances and CPAP on the left ventricle and natriuretic peptides

Int Cardiol 2008, 128:232-9 Hoekema A. et al:

(This study demonstrates that 50% of patients with moderate to severe OSASH, without cardiovascular disease, have left ventricular hypertrophy, left ventricular dilatation or elevated natriuretic peptides. Significant changes in NT-pro-BNP values indicate an improvement of cardiac function following effective oral-appliance therapy).

The Medical Cost of Undiagnosed Sleep Apnea

SLEEP, 1999, 22: 6 Vishesh Kapur MD, MPH, David K. Blough PhD, Robert E. Sandblom MD, Richard Hert MD, James B. de Maine MD, Sean D. Sullivan PhD, Bruce M. Psaty MD PhD

(This study demonstrated that individuals with OSA had a higher chronic disease burden and medical costs in the year prior to diagnosis than age and sex matched controls. In addition, medical costs in our cases were related to the severity of SDB after adjusting for age, gender, and obesity. Notation by name of the sleep specialist/dentist)

Health care costs and the sleep apnea syndrome

Sleep Medicine Reviews 2004, 8: 269–279

Vale'rie Wittmannb, Daniel O. Rodensteina

(It appears that undiagnosed sleep apnea leads to a roughly two-fold increase in medical expenses in the years preceding the diagnosis and that treating the disease (once it is diagnosed) results in a decrease in these excess costs. It seems clear that sleep apnea increases the actual number of road traffic accidents, which will carry a definite, but unmeasured up to now, economic cost consequence. From the health economic point of view, the best diagnostic strategy is the one with the greater utility (i.e. polysomnography), although it could appear at first sight to be the more expensive one. From the patient's perspective, a sleep apnea result in a given decrease in the possibilities to enjoy life, and its treatment is worth considering, especially if one takes into account that the actual treatment costs are not great.)

Cost Justification for Diagnosis and Treatment of Obstructive Sleep Apnea

SLEEP, Vol. 23, No. 8, 2000

(Position Statement of the American Academy of Sleep Medicine)
