

Press Release Contact Information:

Ira Shapira
Sleep and Health Journal
Section editor/author
1810 Delany Road
Gurnee, Illinois
USA, 60035
Voice: 847-623-5530
Fax: 847-623-7233
E-Mail: [Email us Here](mailto:ira@shapira.com)
Website: [Visit Our Website](http://www.sleepandhealthjournal.com)

Brain Damage from Sleep Apnea in Young and Old Causes Changes in Brain Functioning, Poor Sleep and Short Sleep. The Majority of Sleep Apnea Patients Do Not Use Their CPAP. I HATE CPAP! offers help at WWW.IHATECPAP.COM

Multiple studies have shown changes in learning and cognitive function related to sleep apnea. Eighty percent of ADD and ADHD in children is linked to sleep apnea. Short term memory loss, cognitive dysfunction, dementia and alzheimers are all linked to untreated sleep apnea.

GURNEE, IL, October 07, 2008 **/24-7PressRelease/** -- Obstructive sleep apnea is probably one of the best-researched disorders in sleep medicine and an effective treatment has been developed, CPAP or continuous positive air pressure. Unfortunately studies have shown that only 23-45 % of patients prescribed CPAP use it on a regular basis. Due to the fact that permanent damage to the brain and cardiovascular system results from untreated apnea this lack of treatment compliance has led an intense effort to improve compliance by improving the design of the machines and the masks. This effort has been only minimally effective. The field of Dental Sleep Medicine has emerged as the best hope for patients who do not tolerate CPAP treatment. The American Academy of Sleep Medicine has endorsed oral appliances as a first line treatment along with CPAP for mild to moderate sleep apnea and as an alternative treatment for severe sleep apnea. This position is also endorsed by the National Sleep Foundation, The American Sleep Apnea Association (AWAKE) and the American Academy of Dental Sleep Medicine. An excellent site for information on Dental Sleep Medicine <http://www.ihatecpap.com> was developed by Dr Ira L Shapira a Chicago dentist who is a Diplomate of the American Board of Dental Sleep Medicine and a pioneer in the field. He was a charter member of the Sleep Disorder Dental Society, which evolved into the American Academy of Dental Sleep Medicine and is a charter member of DOSA, The Dental Organization for Sleep Apnea. www.ihatecpap.com has a find a dentist area to help patients connect with Sleep Apnea Dentists. DR SHAPIRA EMPHASIZES THAT HE DOES NOT HATE CPAP AND THAT IT IS AN EXCELLENT TREATMENT FOR PATIENTS WHO TOLERATE IT AND USE IT THE RECOMMENDED 7-8 HOURS NIGHTLY.

Recent articles have detailed the negative effects on the structure of the brain from untreated sleep apnea. A recent article in SLEEP, Brain Structural Changes in Obstructive Sleep Apnea by Macey, et al detailed the changes in brain structure associated with sleep apnea. The conclusions were "White matter is extensively affected in OSA patients: the alterations include axons linking major structures within the limbic system, pons, frontal, temporal and parietal cortices, and projections to and from the cerebellum." The limbic system affects emotional states and mood and cortical function affects cognitive function. It is well known that short-term memory loss and dementia is linked to untreated sleep apnea. The cerebral damage is not readily evident on regular MRI studies however " more sensitive anatomical MRI techniques usually reserved for research studies do reveal the structural changes in brain regions that also show functional alterations, including areas that regulate memory and planning functions" They also effect areas that regulate the underlying autonomic outflow thereby causing problems with diabetes, cortisol production and hypertension. The injury is not well understood but can be detected by functional MRI.

In 2006 in the August 22 issue of the global online journal Public Library of Science Medicine John Hopkins researchers published an article: CHILDHOOD SLEEP APNEA LINKED TO BRAIN DAMAGE, LOWER IQ. This article should be a wake up call to every parent who has a child with snoring, apnea or breathing problems. It is also a wake up call for the pediatric medical community that enlarged tonsils and adenoids can no longer be taken lightly. It has long been known that children who snore or who have large tonsils or adenoids do not do as well in school but now we know these conditions can cause permanent brain damage and we can not idly wait for children to outgrow their tonsils and adenoids.

This was the first study showing permanent neural changes in the brains of children damaging two brain structures tied to learning ability. The specialized MRI showed damage to hippocampus and the right frontal cortex. Utilizing IQ tests and other performance tests measuring the verbal performance, memory and higher-level functions the researchers linked the changes to deficits in neuropsychological performance.

The hippocampus, a structure located in the temporal lobe, is central to learning and to memory storage. The right frontal

cortex governs higher-level thinking, such as accessing old memories and using them in new situations. These changes would probably explain why ADD and ADHD are associated with sleep apnea in approximately 80% of children. This is in addition to the known harm from oxygen desaturation and fragmented sleep seen with sleep apnea. These changes in the brain are similar to the changes seen in the adult brain but are obviously much more dangerous in the developing brain. While this study may not be final proof of cause and effect can we afford to risk diminished IQ in our children or should aggressive diagnosis and treatment of sleep apnea in children immediately.

Development of the front cortex is more damaging in children but continues throughout the teen years. Final maturation occurs in the 30's. OSA affects approximately 2% of Children 4% of the population and up to 40% of men in their 40's and beyond. Heavy snoring has recently been shown to increase the risk of Carotid Atherosclerosis and stroke ten fold or 1000%. This was published in Sleep. September 2008.

Obstructive sleep apnea occurs due to partial or complete airway obstruction by the tongue and other soft tissues due to anatomic and/or neuromotor factors. The leading cause of sleep apnea in children is enlarged tonsils and adenoids, and the first line of treatment has been surgical removal. This is now being challenged by another form of Dental Sleep Medicine, early orthodontic expansion. A presentation at the American Academy of Dental Sleep Medicine meeting suggested that orthodontic expansion should precede tonsil and adenoid removal but that in most cases both procedures should be preformed. The speaker suggested that the earlier the airway obstructions are removed the better. Orthodontic expansion can be done at two years of age or even younger.

An article in Sleep, Orthodontic Expansion Treatment and Adenotonsillectomy in the Treatment of Obstructive Sleep Apnea in Prepubertal Children by Christian Guilleminault, et al showed that the majority of children benefited by surgical and orthodontic procedures and a small group benefited by orthodontic procedures alone. The impact of rapid maxillary expansion in children is not only an oral change but also a reduction in nasal resistance as well. The mouth and nose are similar to a two-story building. The roof of the mouth and the floor of the nose is the same structure and early expansion of the oral cavity also widens the nasal cavity leading to a lifetime of better breathing and probably increased intelligence, better health and better physical performance. A primary cause of these problems is the use of bottle-feeding and formula. When an infant sucks on a bottle they use their muscles in an inappropriate manner that causes collapse of oral and nasal structures. When they feed from a mother's breast they flatten the erect nipple against the hard palate and rhythmically work the tongue to express milk and this also widens the mouth and nose. The babies tongue is actually the best orthodontic appliance for widening the mouth. Dr Jim Garry a pediatric dentist who developed the NUK exerciser spent a lifetime educating dentists about the importance of Breast Feeding in oral development. Dr Brian Palmer also did similar work. Le Leche League who strongly promotes breast-feeding is an excellent resource for young families planning on having children. Preparation for successful nursing prior to childbirth is highly advised. The pediatric community now recommends two years of breastfeeding.

Dr Shapira has previously recommended that wet nurses should be covered by medical insurance when women are unable to breastfeed an article in Sleep and Health can be found at: http://www.delanydentalcare.com/pdf/Sleep_Health_aug06.pdf. In China where contamination of formula has been a recent problem wet nurses have become a popular method to protect the health of infants. Stay at home mothers could supplement their income by nursing children of mothers unable or unwilling to breastfeed their own children. In one generation this single change could dramatically help control our ever-increasing medical expenses. In the meantime universal healthcare for children will allow our society to improve the health and intelligence of our children while reducing future medical expenses.

Dr Shapira teaches courses to dentists who desire to practice Dental Sleep Medicine at his Gurnee, Illinois office. He limits attendance at his courses to six dentists and extensively reviews the development aspects of sleep apnea. Dr Alex Golbin a Chicago physician who is a Diplomat of the Academy of Sleep Medicine and author of the first book on Sleep Psychiatry introduces students to the sleep lab. Dr Golbin runs Sleep and Behavioral Medicine and has three sleep labs in Skokie, Vernon Hills and Bannockburn. Dr Golbin is also very interested in developmental aspects of sleep apnea and the effects on children. He wrote the book on children's sleep and is the former head of child psychiatry at Cook County Hospital. He also has a treatment that is over 80% successful for treating nocturnal enuresis. Dr Shapira's next course for dentists is November 14-15, 2008 and includes continuous mentoring of his students. Dr Shapira is well known for his treatment of temporomandibular disorders and connects the treatment of sleep apnea to TMJ disorders in his course. The National Heart Lung and Blood Institute considers sleep apnea to be a TMJ disorder and their report is fascinating to anyone who has Sleep or TMJ disorders. Cardiovascular and Sleep related Consequences of TMJ disorders could be found at: http://www.nhlbi.nih.gov/meetings/workshops/tmj_wksp.pdf.

Two articles previously published in Cranio by Shimshak, et al showed a 200-300% increase in medical costs in all fields of medicine in patients diagnosed with TMJ disorders. A recent article in the Archives of Internal Medicine showed falls by elderly women increased 47% when they had less than 5 hours sleep. This is often due to undiagnosed or untreated sleep apnea. It is also well known that balance is affected by TMJ disorders. Patients with untreated sleep apnea have slower reaction times than patients who are legally intoxicated and a six-fold increase in motor vehicle accidents. They also have six fold increases in heart attacks and strokes. One study showed a 36% decrease in 8 year survival in patients with untreated sleep apnea.

Dr Shapira treats patients with TMJ disorders and sleep apnea in his Gurnee office and treats patients with sleep apnea at offices in Skokie, Schaumburg and Bannockburn. He can be reached thru his websites www.delanydentalcare.com , www.ihatecpap.com , www.ihateheadaches.org or toll free at 1-8-NO-PAP-MASK or 1-800-TMJoint

Dr Shapira and his partner Dr Mark Amidei use Neuromuscular dentistry to treat TMJ disorders including headaches, migraines, facial pain, ear aches, sinus pain, snoring, sleep apnea and balance problems. They also are trained to use neuromuscular dentistry to make pure power mouthguards to increase strength, balance and athletic performance. Many professional and amateur athletes are embracing this safe and legal alternative to steroids to maximize performance.

Dr Shapira has lectured at ICCMO on Dental Sleep Medicine and was a frequent lecturer in the 1990's at the American Academy of Anti-Aging Medicine. One of his lectures was published as a chapter on anti-aging dentistry in a textbook on anti-aging medicine and can be accessed at: <http://www.delanydentalcare.com/pdf/article2.pdf>

Dr Shapira is also the leading proponent of early minimally invasive removal of wisdom teeth. He holds several method and device patents and predicts that early wisdom tooth removal will soon become the standard for dentistry and that Stem cells collected during the procedure will lead to incredible advances in personalized medicine and life extension. He predicts young healthy adult stem cells will one day serve as the basis for vaccines against aging.

About Dr Ira L Shapira

Dr Ira L Shapira is an author and Dental section editor fo Sleep and Health Journal, President of I HATE CPAP LLC, President Dato-TECH, and has a Dental Practice, Delany Dental Care Ltd with his partner Dr Mark Amidei. Dr Shapira has recently formed Chicagoland Dental Sleep Medicine Associates and currently has three locations where he practices primarily Dental Sleep Medicine.