

CODING edge

Put Tired Sleep Coding to Bed

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Sleep Apnea:

The Not So Silent Bed Partner

High blood pressure, heart failure, unruly seizures, ADD, diabetes, and distorted metabolism may all be linked to sleep apnea.

By I. A. Barot, MD



"The Nightmare" John Henry Fuselli. The Detroit Institute of Fine Arts. Public domain

PROFESSIONAL

Sleep studies are an essential tool in diagnosing sleep apnea. The symptoms of sleep apnea—including interrupted sleep, snoring, and daytime sleepiness—often are considered normal, and thereby are dismissed as inconsequential. In fact, such manifestations are not normal, and are allied with other serious problems.

Snoring, for instance, has been linked independently to both hypertension and heart disease.

Proper Identification and Treatment Yields Significant Results

Proper diagnosis and treatment of sleep apnea can have important patient benefits. For example:

- Over 80 percent of patients on three or more blood pressure medicines—regardless of complaints regarding sleep—suffer from sleep apnea. Appropriate treatment of their apnea over a period of several weeks results in a substantial blood pressure reduction with no change in medication.
- Up to 50 percent of patients with heart failure suffer from complex sleep apnea, and treatment improves quality of life for these patients consistently.
- Seizure patients who are treated for sleep apnea have better seizure control with less anti-epileptic medication (and therefore fewer side effects).
- Headache patients have improved headache control with a need for less abortive and preventative medications (thereby once again reducing side effects) after treatment of co-morbid sleep apnea.

• Sleep apnea patients tend to have a distorted metabolism. Cortisol, leptin, and ghrelin (three fat and appetite hormones) are dependent upon normal sleep and a healthy sleep/wake cycle. When disrupted by sleep apnea, the release of these hormones is interrupted. Sufferers become abnormally hungry—craving carbohydrates and fatty foods and

abnormally depositing fat—while their fat metabolism is slowed. Overall metabolism also is affected, and as such sleep apnea patients gain weight, which perpetuates a vicious weight gain/apnea cycle and increases the risk of diabetes (cortisol releases glucose). On the converse, when patients are treated properly for sleep apnea, not only do levels of alertness and energy improve (facilitating desire for exercise), but also carbohydrate craving decreases, metabolic rate increases, and glucose levels improve—all of which may result in significant weight loss.

Symptoms May Be Misleading

Sleep apnea commonly is under- or misdiagnosed. For example, memory disturbances plague millions of Americans and often are diagnosed as Alzheimer-type dementia, particularly when other “reversible causes” of memory loss are excluded (e.g., seizures, vitamin deficiencies, brain lesions, endocrine problems, etc.). Typical cognitive complaints of sleep apnea patients include difficulty remembering names, finding words, and short-term recall. Yet, how often do we think about sleep apnea before starting expensive, disease-modifying therapeutic agents aimed at slowing cognitive decline?

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Millions of Americans are taking prescription antidepressant medications for a diagnosed primary mood disorder. Typical psychiatric disturbances in patients with sleep apnea include irritability, mood changes, and depressive symptoms. How many patients with these mood disorders are screened for sleep apnea?

Apnea Can Affect Anyone

Often, we imagine the sleep apneic to be an obese, thick-necked drowsy male who snores loudly and who stops breathing during sleep (according to his bed partner's witnessed report). If it were that simple, sleep studies would have little necessity. In fact, most sleep apneics are not obese; many thin or normal build people suffer from severe forms of sleep apnea, and most patients have subtle complaints that can be elicited only when appropriate questions are asked.

Often, sleep-related breathing disorders are due to upper airway dynamics, often starting at the level of the soft palate. Due to anatomy (airway size, craniofacial characteristics, tongue size, soft palate position, etc.), certain ethnic groups (including Asians and African Americans) are particularly predisposed to more severe forms of sleep apnea, and it probably isn't a coincidence that these populations have an increasing incidence of heart disease, diabetes, and refractory hypertension.

Children with sleep apnea may present with different symptoms. Although some children have snoring, gasping, and witnessed difficulty breathing during sleep (each of which should prompt a referral to a qualified sleep specialist), many do not have such obvious sleep-related breathing issues. Restless sleep (poor sleeping), recurrent sleep terrors, bedwetting after the age of four years, habitual mouth-breathing (day or night), regular episodes of reflux, poor growth (failure to thrive), and symptoms of attention deficit disorder (ADD)/attention deficit hyperactivity disorder (ADHD) warrant a comprehensive sleep apnea screening. A subsequent sleep medicine consultation, sleep studies (if indicated), and appropriate treatment (e.g., surgery, rapid maxillary, mandibular expansion (RME), nasal continuous positive airway pressure (nCPAP), maxillomandibular advancement (MMA), etc.), can help restore sleep, correct deficient growth patterns, eradicate bedwetting, eliminate reflux, and improve school performance.

Because apnea has a genetic component (probably due to anatomic factors such as airway size, mandibular deficiency, nasopharyngeal tissue, etc.), biological parents of children who are diagnosed with sleep apnea should consider being screened themselves.

Coding Apnea for Accuracy

Sleep apnea may be due to any number of causes, and may manifest with related conditions such as insomnia:

- **327.20** *Organic sleep apnea, unspecified*—obsolete term for medical cause of sleep apnea.
- **327.21** *Organic sleep apnea; primary central sleep apnea*—same as above, except no respiratory effort.
- **327.23** *Organic sleep apnea; obstructive sleep apnea (adult) (pediatric)*—repeated episodes of airway collapse with associated decrease in oxygen levels and autonomic changes with respiratory effort.
- **327.29** *Other organic sleep apnea*—sleep apnea not otherwise specified.
- **780.51** *Sleep disturbances; insomnia with sleep apnea, unspecified*—sleep apnea with primary symptoms of difficulty sleeping.
- **780.53** *Sleep disturbances; hypersomnia with sleep apnea, unspecified*—sleep apnea with primary symptoms of excessive daytime sleepiness.
- **780.57** *Sleep disturbances; unspecified sleep apnea*—sleep apnea without specific etiology.

We are in the midst of a symptom-based medical environment: Complaints are treated with medicines because our culture seeks instant gratification. For instance, when our blood pressure is above 140/90 mmHg, we automatically are prescribed medicine or our current medicines are altered. We have become adept at treating numbers to bring them within acceptable levels. The long-term result of this approach, however, has included overzealous expenditure of health care dollars, increasing utility of already overstretched resources. Yet, we are left with the same dilemma (i.e., an increasingly diabetic, overweight, hypertensive, cardiac-unhealthy, depressed, ADHD population). We are becoming increasingly aware that proper diet and exercise are instrumental in prolonging lifespan and improving quality of life. Identifying and treating sleep apnea in at-risk patients can foster the same while reducing both health care cost and disease burden. 



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