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# Sleep Well

**Be well, Do well, Live well**  
**#selfloveselfcarefirst**



**Fall 2022**  
**Women and Sleep**  
**A Focus Issue of SLEEP WELL**



**1) A growing body of evidence suggests that there are substantial differences between females and males in the symptoms, diagnosis, and consequences of Obstructive Sleep Apnea (OSA).**

### **Obstructive Sleep Apnea in Women: Specific Issues and Interventions**

Wimms A, Woehrle H, Ketheeswaran S, Ramanan D, Armitstead J. Obstructive Sleep Apnea in Women: Specific Issues and Interventions. Biomed Res Int. 2016;2016:1764837. doi: 10.1155/2016/1764837. Epub 2016 Sep 6. PMID: 27699167; PMCID: PMC5028797.

### **2) Main differences in sleep and sleep-disordered breathing between women and men.**

Source- **Obstructive sleep apnea in women: scientific evidence is urgently needed**

AHI = apnea-hypopnea index, CPAP = continuous positive airway pressure, OSA = obstructive sleep apnea, QoL = quality of life, REM = rapid eye movement, RERA = respiratory effort-related arousal.

#### **Anatomic and physiological differences**

- Differences in ventilator response to chemical stimuli, with men more susceptible.
- Hormonal status (menstrual cycle and menopause). Peaks of estradiol and progesterone are associated with an increased number of awakenings and more time spent awake.
- Pregnancy.
- Sex differences in upper airway anatomy and function (women have a more stable upper airway and are less susceptible to CPAP).
- Differences in neck circumference, waist-to-hip ratio, and abdominal obesity.

#### **Polysomnographic findings (sleep study findings)**

- Women present longer total sleep time, longer sleep latency, less slow-wave sleep, better objective sleep quality, shorter sleep onset latency, and better sleep efficiency.
- Fewer AHI events/hour, more partial obstruction, and shorter events in women.
- Less severe OSA during the REM sleep phase in women.
- More supine OSA in men.
- More RERA in women.

#### **Comorbidities**

- More anxiety and depression, and more insomnia impacting sleep in women.
- Ovarian and hormonal disorders.
- More use of antipsychotics, antidepressants, and anxiolytics in women.

### **Symptoms related to OSA**

- At the same level of OSA severity as men, women present a lower QoL.
- Women have fewer witnessed apneas because they more often come alone to clinical appointments and live alone.
- Less OSA classic symptomatology (more frequent insomnia, difficulties falling asleep, more awakenings and leg cramps) in women.
- Women have more pronounced sleepiness, albeit less specific as a consequence of their increased prevalence of disorders and treatment associated with hypersomnia.

### **Prevalence and health care**

- More prevalence in men, even in older adult patients.
- Women less likely to seek help for OSA symptoms.
- Women's higher health care consumption (eg, comorbidities, depression, anxiety).

### **CPAP factors**

- Women achieve less pressure with the same OSA severity (lower pharyngeal critical closing pressure in women).

- Reverse elevated systemic inflammation faster in men.

- Conflicting results with respect to adherence.

## **3) Sleep and Women's Health**

Sleep disturbances and disorders are common across a woman's lifespan. Important biological events, often mediated by hormones and physiological changes, such as menstruation, pregnancy, and menopause commonly impact and often cause dissatisfaction with sleep. Given the fact that the negative impacts of poor sleep extend beyond tiredness and fatigue but also impair daytime functioning and mood, identification and treatment of these disorders is

vital to a woman's quality of life.

Nowakowski S, Meers J, Heimbach E. Sleep and Women's Health. *Sleep Med Res.* 2013;4(1):1-22. doi: 10.17241/smr.2013.4.1.1. PMID: 25688329; PMCID: PMC4327930.

#### **4) Symptoms of OSA (women and men)**

- Excessive daytime sleepiness.
- Loud snoring.
- Observed episodes of stopped breathing during sleep.
- Abrupt awakenings accompanied by gasping or choking.
- Awakening with a dry mouth or sore throat.
- Morning headache.
- Difficulty concentrating during the day.
- Mood changes, such as depression or irritability.

**Besides snoring (which is still the strongest predictor of sleep apnea in women and men), women can also experience:**

- Insomnia
- Morning headaches
- Fatigue
- Tiredness
- Depression
- Anxiety

#### **Misdiagnosis in women**

**Due to these subtler and nontraditional sleep apnea symptoms, "women are often diagnosed in error with one of the following conditions," according to the National Sleep Foundation:**

- Anemia
- Cardiac or pulmonary illness
- Depression
- Diabetes
- Fatigue from overwork
- Fibromyalgia

- Hypertension
- Hypochondria
- Hypothyroidism
- Insomnia
- Menopausal changes
- Obesity

Source- ResMed blog, The National Sleep Foundation



#### **5) Women- TO DO (Men too)**

**If by reading the information in this newsletter you suspect you may suffer from a sleep disorder, or sleep deprivation,**

Prioritize your health and well being above all other priorities- especially if you are a caregiver to others.

Make an appointment for a consultation with a board certified sleep physician ASAP.

Follow a regular exercise plan appropriate for you. Consult with your primary care physician before starting your plan.

Manage your stress with healthy coping strategies.

Seek immediate professional help for mental health issues like depression, anxiety, mood disorders, trauma, and any other psychiatric disorders you suspect you may be

suffering from.

Avoid alcohol and caffeine starting at least 10-12 hours before bedtime.

If you are obese or overweight, focus on getting to a healthy weight range for your body.

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*"Encouragement to all women is – let us try to offer help before we have to offer therapy. That is to say, let's see if we can't prevent being ill by trying to offer a love of prevention before illness."*

– Dr. Maya Angelou

*"Let's offer good sleep to women before we have to offer them therapy. But if it's therapy, in conjunction with good sleep that will be the critical piece that empowers them to claim their strength, then by all means, let's provide therapy to them."*

-Dr. Sunita Merriman

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**Sleep Tip- Skip the alcohol at happy hour to get better sleep.**

Alcohol can seriously effect our ability to get good sleep by negatively impacting both, the quality and quantity of our sleep.

If you are in recovery, or interested in eliminating, or reducing your alcohol consumption, you'll be happy to know that non-alcoholic beverages are readily available at most liquor stores, restaurants, and bars. To learn more about [What Alcohol Does to Your Brain and Body](#), tune into this podcast at [Huberman Lab](#).



Non alcoholic beverages are making a splash in the market

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