

## Sleep Apnea Assignment

### (Online Content 1H)

#### Unit Objectives:

- Understand the relationship(s) between obstructive sleep apnea and cardiovascular risk. (1,2,6,7)\*

***In order to receive full credit (1H class time) for this assignment, it must be completed in its entirety by 2/27/2025 at 0800. Any assignment not completed in its entirety will result in missed class time.***

You may have to copy and paste this link to your browser.

<https://link.springer.com/article/10.1186/s40248-019-0172-9>

Refer to the above article and fill in the blanks for the following questions. Submit to the Sleep Apnea Dropbox by 0800, 2/27/2025. If you are unable to ctrl/click to open the article, copy and paste the link in the address box.

- 1) What is obstructive sleep apnea (OSA) characterized by?  
Collapse of upper airways during sleep with ineffective respiratory efforts, intermittent hypoxia and sleep disruption.

- 2) How does the distribution of comorbidities differ between men and women?

With diabetes and ischemic heart disease being more prevalent in men with OSA, and hypertension and depression being more prevalent in women with OSA compared to non-OSA subjects. According to some studies, the comorbidity burden progressively increases with OSA severity

- 3) Name 10 common comorbidities often present in OSA patients.
  - a. Hypoxia
  - b. High sympathetic nervous activity
  - c. Hypertension
  - d. Inflammation
  - e. Endothelial cell dysfunction
  - f. Atherosclerosis
  - g. Arrhythmias
  - h. Stroke

- i. Diabetes
  - j. Renal Failure
- 4) The best studied cardiovascular comorbidity in OSA is \_\_\_\_\_systemic hypertension\_\_.
  - 5) What arrhythmia is especially prevalent in OSA patients?
    - a. A-Fib
  - 6) Highly prevalent in OSA patients, the metabolic syndrome is a pre-diabetic state associated with \_\_\_\_\_central obesity\_\_\_\_\_ and \_\_\_\_\_  
\_\_\_\_\_increased cardiovascular risk\_\_\_\_\_.
  - 7) Untreated OSA in diabetic patients is associated with increased prevalence of \_\_\_\_\_neuropathy\_\_\_\_\_, \_\_\_\_\_peripheral artery disease\_\_and \_\_\_\_\_diabetic neuropathy\_\_\_\_\_.
  - 8) The association between OSA and chronic obstructive pulmonary disease is known as what? Overlap Syndrome
  - 9) Sleep studies confirmed that OSA is \_\_\_\_\_more common\_\_\_\_\_ \_\_\_\_\_in asthmatics than in controls, and the combination of OSA and asthma had a higher frequency of \_\_\_\_\_Asthma Exacerbations\_.
  - 10) Careful assessment of \_\_\_\_\_comorbidities\_\_\_\_\_ should become standard clinical practice for OSA patients.