Obstructive sleep apnea (OSA) is a common disease characterized by recurrent collapse of the upper airway during sleep leading to sleep fragmentation and nocturnal hypoxemia. Patients with OSA suffer from tiredness and sleepiness. However, OSA is being increasingly recognized as an important risk factor for the development of vascular disease including strokes and myocardial infarction. This lecture will review the epidemiologic and pathophysiologic links between sleep apnea and the development of premature vascular disease.