

PULMONARY WAIVERS

CONDITION: OBSTRUCTIVE SLEEP APNEA ICD 9: 78057

Published January 2003

AEROMEDICAL CONCERNS: Obstructive Sleep Apnea (OSA) is a condition resulting in disrupted sleep and excessive daytime sleepiness with demonstrable deficits in cognitive and psychomotor performance. The condition is linked to hypertension, angina, nocturnal cardiac arrhythmias, myocardial infarction, and stroke - many of which would be incapacitating in flight. In addition, aircrew with OSA may develop cardiovascular abnormalities to include dilated cardiomyopathy. The repetitive nocturnal oxygen desaturations that are part of this condition can lead to the development of pulmonary hypertension and Cor Pulmonale.

WAIVERS:

1. Initial Applicants: Sleep Apnea is disqualifying for aviation duty.

a. Class 1A/1W: Exceptions to policy are rarely granted unless the individual was surgically treated and postoperative polysomnography (PSG) demonstrates resolution.

b. Classes 2, 2F, 3, and 4: Waivers are granted on a case-by-case basis.

2. Rated Aviation Personnel: Sleep apnea is disqualifying for aviation duty.

Class 2, 2F, 3, and 4: Waivers are possible and granted on a case-by-case basis if the condition is treated with weight loss, dental device, surgery, or use of Continuous Positive Airway Pressure (CPAP) devices with documented resolution via PSG.

INFORMATION REQUIRED: Aeromedical Summary (AMS) with:

- Results of PSG to confirm diagnosis and a post-treatment PSG to document improvement with therapy,
- ENT or Pulmonary consultation,
- Oral Surgery consultation if a dental device is used,
- Note of current treatment for the condition,
- Copy of operative report if surgically treated.

FOLLOW-UP: Annual ENT or Pulmonary Consultation. Oral Surgery consultation if a dental device is used.

TREATMENT: Weight loss is the simplest treatment and a loss of 10 percent body weight can result in symptom resolution. The identification and treatment of risk factors such as obesity and hypothyroidism may lead to resolution. In some cases, modification of sleep position may be adequate. Dental devices that modify position of the tongue or jaw, and upper airway and jaw surgical procedures such as Uvulopalatopharyngoplasty (UPPP) and Laser-assisted

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uvulopalatoplasty (LAUP) are additional therapies. Nasal CPAP is a common treatment, but may not be feasible in the army aviation environment with the possibility of service in austere environments.

DISCUSSION: OSA is caused by repetitive upper airway obstruction during sleep as a result of narrowing of the respiratory passages. Obstructive apnea is the cessation of airflow for 10 seconds or more associated with continued respiratory effort. Obstructive hypopnea is the reduction in airflow for 10 seconds or more associated with continued respiratory effort. The Apnea/hypopnea index (AHI) is a commonly reported result of the PSG. AHI is defined as the number of apneas and hypopneas per hour of sleep. Normal AHI is fewer than five per hour. In severe cases, of OSA, AHI exceeds 30 per hour. Another measure on the PSG is the respiratory distress index (RDI). Normal RDIs are generally less than 10 with values between 5 and 20 considered mild, 20-50 moderate, and greater than 50 indicative of severe sleep apnea. The obstructive episodes are often associated with a reduction in oxyhemoglobin saturation. The multiple arousals with sleep fragmentation are the likely cause of excessive daytime sleepiness. OSA is a significant medical problem affecting up to 4 percent of middle-aged adults. Common features include: Loud snoring, disrupted sleep, nocturnal gasping and choking, witnessed apnea, daytime sleepiness and fatigue, crowded posterior airway and short, thick neck.

REFERENCE: American Sleep Apnea Association, <http://www.sleepapnea.org/>