was found in pain threshold regarding age. It seems probable that the difference found between subjects with silent and symptomastic cardiopathies is due to the different modulation of the perception of pain at a central level, independent of the age factor.

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REFERENCES
3 Marwick TH. Is silent ischemia painful because it is mild? J Am Coll Cardiol 1995; 25:1513-15

Treatment Algorithm for OSA

To the Editor:

I read with interest the review article by Hudgel (May 1996) on obstructive sleep apnea (OSA) treatment. The article includes a treatment algorithm for initial therapy for OSA in which patients are first treated with nasal continuous positive airway pressure (CPAP) or weight loss plus medication. According to studies described below, weight loss plus medication should not be considered an effective treatment for OSA in most cases.

There are few studies of more than five patients that demonstrate weight loss to be effective in the treatment of OSA. Rubinstein et al. used hospitalization and a very low calorie diet to achieve a 26 kg weight loss in 12 OSA patients, with a reduction in the respiratory disturbance index (RDI) from 57 to 14 events/h. A recent study of 39 OSA patients receiving gastoectomy resulted in a 9 kg weight loss, but the RDI decreased only from 67 to 50 events/h. Behavioral therapy is a less intensive therapy and resulted in a 2.2 kg weight loss in 127 obese non-OSA patients at 2 years; however, a mean weight loss of 3.6 kg did not result in a decreased RDI in a study of 19 obese OSA patients by Braver et al.

Medications have not been shown to be effective in the treatment of OSA except in specific cases, such as hypothyroidism. Antidepressants suppress rapid eye movement sleep and may decrease OSA severity, although none of these agents is a clinically useful treatment in most patients. A study by Hanzel et al. using fluoxetine and protriptyline to treat OSA in 12 patients demonstrated a reduction in the RDI from 57 to 34 events/h, but only 17% of these patients had both a posttreatment RDI <20 events/h and a ≥50% reduction in RDI. Other drugs, such as theophylline and progesterone, have shown even less clinical efficacy, according to Hudgel.

Treatment with oral appliances (OA) was not included in Hudgel’s algorithm. A recent prospective, double-crossover study by Ferguson et al. showed that while OA treatment was not as effective as CPAP, it was an effective treatment in 48% of OSA patients, especially those with mild or moderate OSA. In conclusion, weight loss plus medication should not be considered as a first-line treatment for OSA patients. More effective initial treatment alternatives to CPAP include OA and pharyngeal and jaw surgery.

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The opinions or assertions contained herein are the private views of the authors and do not necessarily represent the opinion of the Department of the Army or of the Department of Defense.

REFERENCES
6 Hanzel DA, Proia NG, Hudgel DW. Response of obstructive sleep apnea to fluoxetine and protriptyline. Chest 1991; 100:416-21

To the Editor:

I appreciate the opportunity to respond to Dr. Loube’s letter concerning my review of the treatment of obstructive sleep apnea (OSA). Dr. Loube contends that weight loss and medications should not be recommended as a first line of treatment for OSA. He would recommend either nasal continuous positive airway pressure (CPAP) or upper airway surgery as the initial treatment option discussed with a new untreated sleep apnea patient.

In the military where Dr. Loube practices, extremely obese OSA patients likely are not encountered. However, in the civilian population, obesity is quite common in OSA patients. Several studies have shown an improvement in upper airway function and a decrease in apnea with weight loss. These findings are discussed in the review. Obviously, we would be remiss if we did not strongly encourage our obese OSA patients to lose weight.

 Although the medical treatment of obstructive sleep apnea is in its infancy, some promising results are available. The relationship between serotonin abnormalities and sleep apnea is not totally clarified, but studies have provided initial promising results. Tryptophan, fluoxetine, and buspirone—agents that increase brain serotonin activity by different mechanisms—all improve sleep apnea in some patients. Although it is not yet clear which patients are the best candidates for this therapy, the use of medications can be more convenient than CPAP, if they are as