

Weight loss reduces sleep problems in obese men

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Weight loss reduces obstructive sleep apnoea in obese men, with the greatest effect seen in patients with severe disease, according to new research published in the *British Medical Journal* today.

Obstructive sleep apnoea is a common sleep disorder characterised by pauses in breathing during sleep. Each episode (apnoea) lasts for at least 10 seconds and is caused by the collapse of the upper airways during sleep.

Moderate and severe obstructive sleep apnoea (defined as 15 or more apnoeas per hour) carries an excess risk of motor vehicle crashes, heart disease and death. Yet only one study has examined the effects of weight loss on obstructive sleep apnoea.

So researchers at the Karolinska Institute in Sweden set out to evaluate whether treatment with a low energy diet reduces moderate and severe obstructive sleep apnoea in obese men.

The study involved 63 obese men (BMI 30-40) aged 30-65 years with moderate to severe obstructive sleep apnoea who were being treated with continuous positive airway pressure (a mask designed to help breathing during sleep).

Thirty men received a liquid very low energy diet for seven weeks to promote weight loss, followed by two weeks of gradual introduction of normal food. The remaining men acted as a control group by adhering to



their usual diet over the nine weeks.

Both groups attended regular clinical examinations throughout the study to measure weight, waist circumference, and body fat, and to test dietary compliance. For the diet group, each visit also included a one hour group session to build group support and provide motivation.

At the start of the study, both groups had a mean apnoea hypopnoea index (AHI) of 37 apnoeas per hour. At week nine, the diet group had a mean AHI of 12 events per hour compared with 35 events per hour in the control group.

The diet group also lost an average of 18.7 kg in weight compared with 1.1 kg in the control group over the nine-week period. Twenty-two out of 30 (73%) patients in the diet group were no longer obese at the end of the study, whereas all control patients remained obese.

Five out of 30 (17%) patients in the diet group were also disease-free by the end of the study, and half had only mild disease, whereas all patients in the control group except one still had moderate to severe disease.

Treatment with a low energy diet improves obstructive sleep apnoea in obese men, with the greatest effect in patients with severe disease, conclude the authors. Long term treatment studies are needed to validate weight loss as a primary treatment strategy for obstructive sleep apnoea.

This trial shows that it is possible to help patients with this condition lose weight through lifestyle modification, and that doing this has a good chance of reducing the severity of their disease below the level of harm, say two Australian based researchers in an accompanying editorial. Well designed clinical trials are now needed to convince policy makers, patients, and practising clinicians of the long term usefulness of these tailored approaches, they write.



Source: <u>British Medical Journal</u> (<u>news</u> : <u>web</u>)

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