

MEASURING THE DAYTIME SLEEPINESS OF OSAS:
THE EPWORTH SLEEPINESS SCALE

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Daytime sleepiness is an important symptom of OSAS which until now has required an all-day test such as the Multiple Sleep Latency Test to quantify. The ESS is a simple self-administered questionnaire that I have shown to be a valid and reliable method for measuring a patient's general level of daytime sleepiness (1,2). ESS scores vary from 0-24, the "normal" range being about 2-10.

The ESS scores of 273 consecutive adults who presented with persistent snoring and possible OSAS were reviewed. Patients with secondary sleep disorders such as periodic limb movement disorder were excluded. After overnight polysomnography 165 patients were diagnosed as having OSAS (RDI = 5-70 per hr sleep) and 108 as primary snoring (RDI < 5). ESS scores significantly distinguished groups with primary snoring, mild, moderate and severe OSAS from each other (analysis of variance, $p < 0.001$). Multiple regression analysis showed that ESS scores were significantly related to the severity of OSAS (mainly to the RDI and much less to the lowest SaO_2 recorded during apneas) but were not related to age or body mass index. The results are similar to those from other investigations that have measured sleepiness by laboratory tests.

The ESS is a simple, standardised method for measuring daytime sleepiness, suitable for routine use in adults with all sleep disorders, including OSAS.

1. Johns MW. A new method for measuring daytime sleepiness: The Epworth Sleepiness Scale. *Sleep* 1991; 14:540-45.
2. Johns MW. Reliability and factor analysis of the Epworth Sleepiness Scale. *Sleep* (to be published).