UPDATE

SLEEP LOSS OR ALCOHOL: WHICH IS WORSE?

Within the scientific community, it is not news that sleep loss and alcohol impair functioning. But how do they compare? A recent study in 32 young healthy men and women compared “dose”-related sedative, performance-impairing and amnestic effects of sleep loss to those of ethanol. Subjects experienced 4 “doses” of either sleep loss (i.e. 8, 6, 4 & 0 hrs of allowed bedtime) or a.m. ethanol ingestion (0.0, 0.3, 0.6 & 0.9 g/kg after 8 hrs of bedtime), followed each time by daytime testing. The impact both of sleep loss and ethanol on all objective measures produced linear dose-related functions, allowing “potency” comparisons.1

At the studied doses, sleep loss was 2.7 times more potent in its sedative effects than ethanol. Converting the ethanol doses to the number of United States 12oz beers, 8hrs of sleep loss (i.e. no sleep) was equivalent to 10-11 beers in sedative effects; 2hrs of sleep loss was equivalent to 2-3 beers. In contrast, ethanol was a slightly more potent amnestic than sleep loss, and the two were equipotent in their impacts on performance tests of reaction time and divided attention. Subjective awareness of impairments differed for alcohol and sleep loss: as sleep loss increased so did perceived impairment, whereas subjects rated only the highest ethanol dose as impairing.

These findings are important in that they highlight

1. the substantial risks associated with sleep loss which are less well-recognized by the public than those from alcohol.

2. a striking lack of awareness by persons consuming alcohol of the degree to which they suffer impairment.

If you would like a copy of this article, contact the Sleep Disorders Center at (714) 771-8950.

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