

## Thiamine supplementation reduces anxiety in severely alcohol dependent men

The caustic effects of alcohol on the gastrointestinal tract as well as lifestyle factors impacting dietary habits can lead to severe nutritional and vitamin deficiency in individuals with chronic alcoholism. Vitamin B1 deficiency, also known as thiamine, is a particular problem in alcoholism and can be associated with brain injury impacting memory and motor coordination required for walking and other functions, leading to death in extreme cases. These changes may also affect mental and emotional characteristics such as mood and cognition. We have previously reported reduced alcohol consumption among female but not male alcoholics after supplementation with benfotiamine (BF), a potent thiamine substitute.

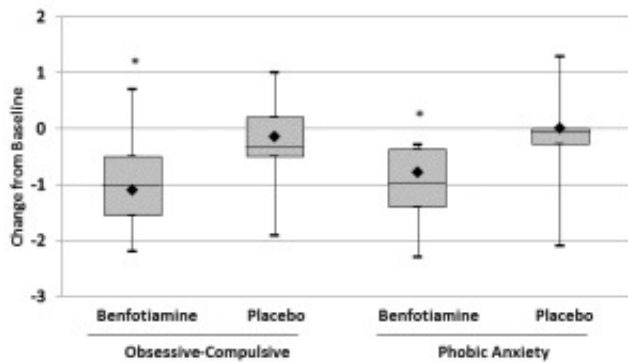


Fig. 1. Psychiatric symptoms of anxiety and phobia measured by the Symptom Checklist 90-R decreased significantly more after 6 months of Benfotiamine supplementation, a potent thiamine substitute, than placebo among men in a high alcoholism severity group. The middle (median) values are indicated by the horizontal lines. Vertical lines show the average (mean) values are indicated by the horizontal lines. Vertical lines show the maximum and minimum values.

The current study examines the relationship between the severity of alcoholism illness over the lifetime, current psychiatric symptoms and response to BF treatment among men from this study. Eighty-five adult men (mean age =  $48 \pm 8$  yrs) meeting standard medical diagnostic criteria for a “current” alcohol use disorder, meaning they were actively abusing alcohol over the 30 days prior to entering the study, were randomly assigned to receive either 600 mg BF or placebo (PL, a sugar pill) daily for 6 months. Neither the subjects nor the investigators knew which pill they were taking. Their psychological condition including mood, anxiety, and impulsive tendencies as well as their current drinking patterns were measured at the beginning of the study (baseline) and after 6 months of participation. Fifty men (N=50) completed the entire 6 month study, and these men were divided into two groups based upon the severity of their alcoholism. Baseline scores on psychological measures for men assigned to the high alcoholism severity group (HAS, 46 subjects)

were significantly greater than for men assigned to the low alcoholism severity group (LAS, 39 subjects) but baseline impulsivity scores did not differ. Anxiety and phobia symptoms were significantly reduced after 6 months of BF treatment compared to placebo for HAS males. Similarly, above normal plasma thiamine levels at 6 month follow-up was associated with lower depression scores in a subset of the BF-treated men. The study results suggest that increasing thiamine blood levels using BF helps to reduce psychiatric distress in severely affected males with a lifetime alcohol use disorder. We propose BF should be considered as additional therapy to reduce psychiatric distress during alcohol rehabilitation and hopefully improve success, a common good in the treatment of alcoholism.

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## **Publication**

[Change in psychiatric symptomatology after benfotiamine treatment in males is related to lifetime alcoholism severity.](#)

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