Beta-glucan supplement reduces upper respiratory tract infections and improves mood state in healthy stressed subjects

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Several studies show a suppression of both immune system function and mood state following psychological stress. Beta-1,3/1,6 D-glucan, extracted from Saccharomyces cerevisiae, is effective in reducing the incidence of colds and flu. This study evaluated the effect of a beta-glucan supplement (Wellmune) on upper-respiratory tract infections (URTIs) and psychological well-being. One hundred twenty-two healthy subjects (32 men, 90 women, 38 ± 12y) pre-screened for moderate levels of psychological stress, self-administered a placebo or 250mg of Wellmune daily for 12-weeks. We used the Profile of Mood States (POMS) psychological survey to assess changes in mental/physical energy levels (Vigor) and overall well-being (Global Mood State). A quantitative health perception log was used to track URTI symptoms. Subjects in the treatment group reported fewer URTI symptoms compared to Placebo (-58% URTI Sx, 7.3% v 17.3%), better overall well-being (+9.5% Global Mood State, 103.1±19.7 v 113.9±32.8, p<0.05), and superior mental/physical energy levels (+11% Vigor, 18.7±4.7 v 16.6±5.7, p<0.05). These data show that daily dietary supplementation with Wellmune reduces URTI symptoms and improves mood state in stressed subjects, and thus may be a useful approach for maintaining immune protection against daily stressors. This study was conducted by GLH Nutrition (SupplementWatch) and sponsored by Biothera.