*Psychopharmacology;* 2002, Vol. 160 Issue 1, p19-29.

# Naltrexone decreases craving and alcohol self-administration in alcohol-dependent subjects and activates the hypothalamo--pituitary--adrenocortical axis.

Authors:
O'Malley, Stephanie S.
Krishnan-Sarin, Suchitra
Farren, Conor
Sinha, Rajita
Kreek, Mary Jeanne

Subject Terms:
*NALTREXONE
*ALCOHOLICS
THERAPEUTIC use

Abstract:
Abstract Background: This laboratory study investigated the mechanisms by which the opioid antagonist, naltrexone, reduces the risk of relapse to heavy drinking in individuals with alcohol dependence. Methods: Eighteen alcohol-dependent, non-treatment-seeking volunteers were randomized to 50 mg naltrexone or placebo for 6 days and participated in an alcohol self-administration experiment on the sixth day. Following baseline assessments of craving and endocrine levels, subjects were first administered a priming drink designed to raise blood alcohol levels to 0.03 g/dl and then had the opportunity to drink up to eight additional drinks or to receive US $3 for each drink not consumed over a 2-h period. Each additional drink was designed to raise blood alcohol levels by 0.015 g/dl. Results: At baseline, naltrexone treatment resulted in higher cortisol levels and lower levels of craving than placebo treatment. Although there were no significant differences in response to the priming dose, naltrexone-treated subjects drank fewer drinks, consumed them more slowly, and reported lower levels of alcohol craving during the alcohol self-administration portion of the experiment. Naltrexone also resulted in higher levels of adrenocorticotropic hormone and cortisol than placebo treatment, and levels of cortisol were negatively correlated with intensity of alcohol craving. The number of drinks chosen was positively correlated with level of alcohol craving. Ratings of nausea were low and did not differ between the naltrexone and placebo groups at any point in the study. Conclusions: These results confirm the hypothesis that naltrexone reduces desire to drink and the amount of alcohol consumed in alcohol-dependent subjects. It is hypothesized that naltrexone may reduce drinking via suppressing craving for... [ABSTRACT FROM AUTHOR]