

## Study reveals stress hormone impacts on alcohol recovery

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Scientists at the University of Liverpool have found that high levels of a stress hormone in recovering alcoholics could increase the risk of relapse.

The study showed that <u>cortisol</u>, a hormone produced by the adrenal gland in response to stress, is found in high levels in chronic alcoholics, as well as those recovering from the condition. Researchers found that this could result in impaired memory, attention and decision-making functions, which could decrease the patient's ability to engage with treatment.

Chronic alcoholism is a disabling addictive disorder, characterised by compulsive and uncontrolled consumption of alcohol despite the negative effects it has on health, relationships and social standing. Alcohol damages almost every organ of the body including the brain where it causes memory loss and impairs decision-making and attention span.

Cortisol plays an important role in the regulation of emotion, learning, attention, energy utilization, and the immune system. The research showed that high levels of this hormone are present in alcoholic patients and continue to be elevated during withdrawal from alcohol and after long periods of abstinence.

Dr Abi Rose (lead author of the review), in the School of Psychology, Health and Society at the University of Liverpool, said: "Both drinking



and withdrawal from alcohol can affect cortisol function in humans. Cortisol dysfunction, including the high levels of cortisol observed during alcohol withdrawal, may contribute to the high rates of relapse reported in alcohol dependence, even after many months of abstinence. Drugs targeting the effects of cortisol in the brain might reduce the chances of relapse and reduce the cognitive impairments that interfere with treatment."

**More information:** The study is published in *Alcoholism: Clinical & Experimental Research*.

## Provided by University of Liverpool

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