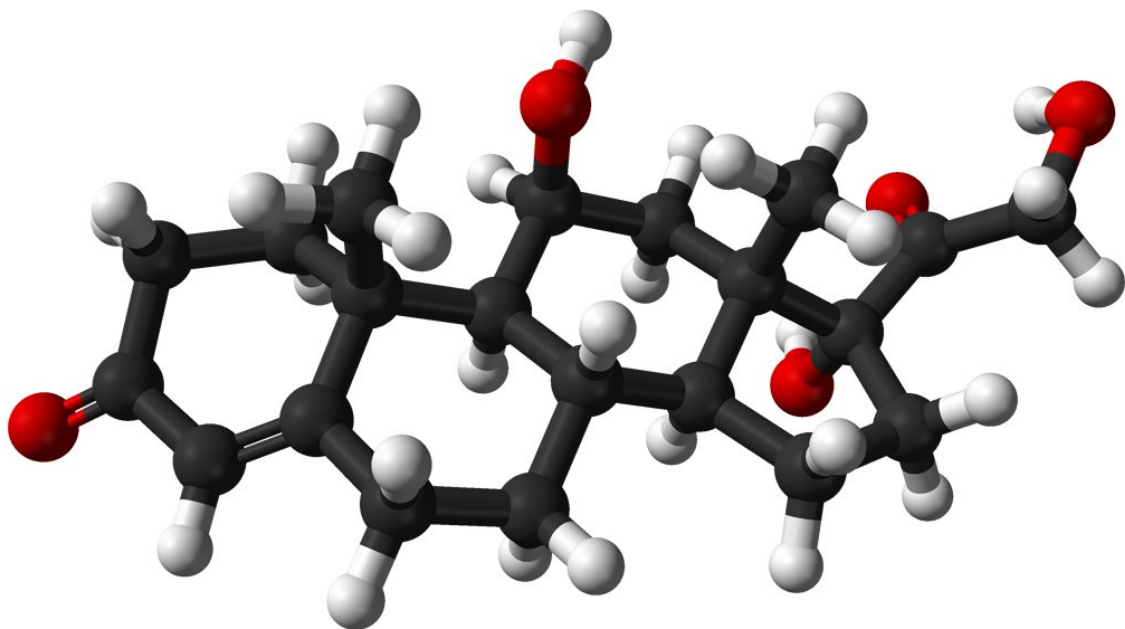


New study identifies cortisol level as indicator of addiction recovery success

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Ball-and-stick model of the cortisol (hydrocortisone) molecule. Credit: Public Domain

A new study by researchers at the Marshall University Joan C. Edwards School of Medicine found that lower initial cortisol levels may serve as a predictor for retention in treatment programs for substance use disorder.

The prospective observational study examined the salivary cortisol, stress exposure, [adverse childhood experiences](#) (ACEs) and treatment retention of males enrolled in abstinence-based, residential alcohol and drug recovery programs. Their findings were published last month in *Alcoholism: Clinical and Experimental Research*.

Cortisol levels reflect a physiological response to stress. In this case, researchers found that participants who remained in the treatment program less than 90 days had significantly higher initial [cortisol levels](#) than those who remained in the program longer than 90 days. Further, a Cox proportional hazards model indicated that elevated salivary cortisol, marital/relationship status and ACEs score correlated significantly with hazards of discontinuing the program early.

"Our hope is that these findings will lead to cortisol as a biomarker that can help clinicians determine which individuals might need a more intensive therapeutic approach," said Todd H. Davies, Ph.D., associate director of research and development at the Joan C. Edwards School of Medicine and corresponding author on the study.

Taylor R. Maddox-Rooper, Kristiana Sklioutouskaya-Lopez, Trenton Sturgill, Caroline Fresch, Charles W. Clements II, M.D.; Rajan Lamichhane, Ph.D.; and Richard Egleton, Ph.D., also served as co-authors on the article. The research team also collaborated with Recovery Point of West Virginia, a long-term, residential recovery program based on the peer-driven model of recovery.

The research team, in collaboration with Recovery Point, currently has a larger follow-up study underway that seeks to identify the clinical significant levels of cortisol. This expanded study also includes a more representative population and examine the hormone oxytocin.

More information: Taylor R. Maddox-Rooper et al, Intake

assessments of salivary cortisol, survey responses, and adverse childhood experiences are associated with recovery success in an abstinence-based treatment program for substance use disorders, *Alcoholism: Clinical and Experimental Research* (2022). [DOI: 10.1111/acer.14913](https://doi.org/10.1111/acer.14913)

Provided by Marshall University Joan C. Edwards School of Medicine

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