

One in Four Patients with Difficult-to-Control Type 2 Diabetes Experience High Levels of Cortisol

Largest-Study-of-its-Kind Uncovers Potential Underlying Condition for People with Difficult-to-Control Type 2 Diabetes and Need for Improved Screening and Treatment Approaches

ORLANDO, FL. (JUNE 24, 2024) – Today, findings from the CATALYST study reveal that hypercortisolism may be a significant factor for why type 2 diabetes (T2D) remains difficult to control for many patients. This study found that 24% of individuals with difficult-to-control type 2 diabetes have hypercortisolism, a condition characterized by high cortisol levels. The results were presented as a late-breaking symposium today at the 84th Scientific Sessions of the American Diabetes Association® (ADA) in Orlando, FL.

Currently, [38.9 to 76.9% of patients with type 2 diabetes](#) have uncontrolled diabetes. Additional research is needed to understand how hypercortisolism may be an underlying contributing cause for difficult-to-control type 2 diabetes. Symptoms of hypercortisolism can include weight gain, high blood pressure, muscle weakness, and mood changes, which can further complicate diabetes management.

The CATALYST study, the largest prospective trial of its kind, screened over 1,000 patients with hemoglobin A1c levels between 7.5% and 11.5% despite multiple diabetes therapies. Researchers used an overnight 1-mg dexamethasone suppression test (DST) to detect hypercortisolism, indicated by a post-DST morning cortisol level above 1.8 µg/dL and a dexamethasone level of 140 ng/dL or higher.

Findings showed presence of hypercortisolism in 24% of the screened patients. Notably, among those taking three or more hypertension medications, the prevalence of hypercortisolism was approximately one in three. Additionally, CT scans revealed adrenal abnormalities in about one-third of these patients, with a quarter having an adrenal tumor, suggesting that surgical intervention could potentially resolve their hypercortisolism and improve diabetes control.

“These results are significant as they highlight a previously underrecognized factor contributing to the barriers when it comes to managing type 2 diabetes,” said John Buse, MD, PhD, from the University of North Carolina School of Medicine Diabetes Center and Translational and Clinical Sciences Institute and lead author of the study. “By identifying hypercortisolism in these patients, we can target treatments more effectively and potentially improve their outcomes.”

The first part of the CATALYST study underscores the importance of screening for hypercortisolism in patients with difficult-to-control type 2 diabetes. The ongoing second part of

the study aims to evaluate whether treating hypercortisolism medically can enhance diabetes management and alleviate related health issues.

Research presentation details:

Dr. Buse will present the findings at the following symposium:

- Symposium: Prevalence of Hypercortisolism in Difficult-to-Control Type 2 Diabetes
- Presented on Monday, June 24, 2024 at 3:15 PM EDT.

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About the ADA's Scientific Sessions

The ADA's 84th Scientific Sessions, the world's largest scientific meeting focused on diabetes research, prevention, and care, will be held in Orlando, FL on June 21-24. More than 11,000 leading physicians, scientists, and health care professionals from around the world are expected to convene both in person and virtually to unveil cutting-edge research, treatment recommendations, and advances toward a cure for diabetes. Attendees will receive exclusive access to thousands of original research presentations and take part in provocative and engaging exchanges with leading diabetes experts. Join the Scientific Sessions conversation on social media using #ADAScientificSessions.

About the American Diabetes Association

The American Diabetes Association (ADA) is the nation's leading voluntary health organization fighting to bend the curve on the diabetes epidemic and help people living with diabetes thrive. For 83 years, the ADA has driven discovery and research to treat, manage, and prevent diabetes while working relentlessly for a cure. Through advocacy, program development, and education we aim to improve the quality of life for the over 136 million Americans living with diabetes or prediabetes. Diabetes has brought us together. What we do next will make us Connected for Life®. To learn more or to get involved, visit us at diabetes.org or call 1-800-DIABETES (1-800-342-2383). Join the fight with us on Facebook ([American Diabetes Association](https://www.facebook.com/AmericanDiabetesAssociation)), Spanish Facebook ([Asociación Americana de la Diabetes](https://www.facebook.com/AsociaciónAmericanaDeLaDiabetes)), LinkedIn ([American Diabetes Association](https://www.linkedin.com/company/AmericanDiabetesAssociation)), Twitter ([@AmDiabetesAssn](https://twitter.com/AmDiabetesAssn)), and Instagram ([@AmDiabetesAssn](https://www.instagram.com/AmDiabetesAssn)).