

Study confirms finding of higher diabetes indicator in black children

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A new study confirms the findings of two earlier LSU Health New Orleans studies that the definitive indicator of diabetes control, the HbA1c, is deceptively high in African-American children. The 2000 and 2010 studies led by Stuart A. Chalew, MD, Professor of Pediatrics and Head of the Division of Endocrinology in the Department of Pediatrics at LSU Health New Orleans School of Medicine, first reported the major difference in the hemoglobin A1c (HbA1c) response to blood glucose between African-American and Caucasian children with diabetes.

Dr. Chalew conducted the studies at the Children's Diabetes Center of the Children's Hospital of New Orleans. HbA1c is the main test used to monitor diabetes and guide treatment decisions. In an editorial accompanying the current study, Dr. Chalew calls for prioritizing efforts to identify and confront the sources of ongoing disparities in young patients with type 1 diabetes (T1D). The study and editorial were published February 16, 2015, in the eFirst Pages of the journal, *Pediatrics*.

The follow-up study conducted by the T1D Exchange Clinic Network further analyzed treatment patterns and HbA1c outcomes from 10,704 pediatric patients in 60 participating clinical centers across the US.

"Particularly perplexing and worrisome is the confirmation by this new survey that black children have higher HbA1c than white children and that the underlying cause of this persistent racial disparity in HbA1c is

unclear, " notes Dr. Chalew.

African-American children have significantly higher HbA1c than Caucasians despite similar average, or mean, [blood glucose](#) levels. A component of HbA1c that is independent of mean blood glucose may not be modifiable by changes in insulin dosing.

"Besides the risk of over-treating with insulin and provoking hypoglycemia, clarification of the impact of factors besides mean blood glucose is important because such factors may require new approaches to patient monitoring and innovative interventions for safe and effective prevention of complications," concludes Dr. Chalew.

According to the Centers for Disease Control and Prevention, type 1 diabetes, which was previously called insulin-dependent diabetes mellitus (IDDM) or juvenile-onset diabetes, may account for about 5% of all diagnosed cases of diabetes. From 1980 through 2011, the number of Americans with diagnosed diabetes has more than tripled - from 5.6 million to 20.9 million. The causes of [type 1 diabetes](#) appear to be much different than those for type 2 [diabetes](#) though the exact mechanisms for developing both diseases are unknown. Diabetes can cause serious health complications including heart disease, blindness, kidney failure, and lower-extremity amputations. Diabetes is the seventh leading cause of death in the United States.

Provided by Louisiana State University

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