

# Future directions for landmark diabetes study

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The two most highly cited diabetes research trials – Diabetes Control and Complications Trial (DCCT) and its follow-up study Epidemiology of Diabetes Interventions and Complications (EDIC) – are marking their 30th anniversary. DCCT, which ran from 1982 to 1993, enrolled more than 1,400 adolescents and young adults with type 1 diabetes to evaluate if intensive control of diabetes could lower the risk of complications better than conventional control. EDIC launched in 1994 and continues to follow many patients from the original study.

This month, the journal *Diabetes Care*, published by the American Association of Diabetes, features a series of articles commemorating the anniversary of the groundbreaking studies. University Hospitals Rainbow Babies & Children's Hospital (UH Rainbow)/Case Western Reserve University School of Medicine together have constituted a lead center in DCCT/EDIC, the longest-running study funded by the National Institutes of Health.

Rose A. Gubitosi-Klug, MD, PhD, Interim Chief, Pediatric Endocrinology, Diabetes and Metabolism, UH Rainbow and Associate Professor of Pediatrics at Case Western Reserve School of Medicine, penned the series' summary and mapped out future directions for the research in the issue.

"DCCT/EDIC are landmark studies," said Dr. Gubitosi-Klug, who is Principal Investigator of the study's Clinical Coordinating Center at the School of Medicine and UH Rainbow. "They have set the standard of

care for clinical management of [type 1 diabetes](#), which has forever changed the course of its complications.

"The main message impacts the way we care for children with diabetes everyday: Earlier intervention is critical to prevent the complications of diabetes," said Dr. Gubitosi-Klug. "The message is clear: Controlling glucose levels is the major factor that can greatly lower the risk of the development and progression of the complications of type 1 diabetes, including eye and nerve damage and heart disease."

Intensive management of [diabetes](#) includes multiple daily injections of insulin and careful blood glucose monitoring.

The doctor said one of the amazing aspects of the study is the high rate of participation by the research subjects, even 30 years later. "We find participation levels greater than 80 to 90 percent in many follow-up studies," she said. "The research participants believe they are contributing to a greater good that will help future patients."

In the coming years, Dr. Gubitosi-Klug said that DCCT/EDIC hopes to study several new areas, including defining the relative time course of the development of retinopathy, nephropathy and neuropathy, and whether rates of progression in one can shed light on the development of the other complications; establishing evidence-based frequency of screening for these complications; refining self-monitoring to learn more about the role of variability in glucose levels on outcomes; exploring the effects of glucose control on cognition and continuing to monitor the bottom line – that intensive management prevents costly [complications](#) and is economically sage, among other initiatives.

Saul Genuth, MD, an endocrinologist at UH Case Medical Center and Professor of Medicine at Case Western Reserve School of Medicine, has co-chaired DCCT/EDIC since its inception.

An accompanying editorial in *Diabetes Care*, calls the study "the gift that keeps on giving." The complete anniversary issue is located at:  
<http://care.diabetesjournals.org/site/misc/dcct.xhtml>

Provided by University Hospitals Case Medical Center

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