

# Cardiac function unaffected by prior intensive insulin therapy

April 12 2013

---



There was no effect of intensive versus conventional insulin therapy during the Diabetes Control and Complications Trial (DCCT) on cardiac parameters as assessed by cardiac magnetic resonance in the Epidemiology of Diabetes Interventions and Complications cohort (follow-up to the DCCT), but prior glycemic exposure had an impact on cardiac parameters, according to research published online March 21 in *Diabetes*.

(HealthDay)—There was no effect of intensive versus conventional insulin therapy during the Diabetes Control and Complications Trial (DCCT) on cardiac parameters as assessed by cardiac magnetic resonance (CMR) in the Epidemiology of Diabetes Interventions and Complications (EDIC) cohort (follow-up to the DCCT), but prior glycemic exposure had an impact on cardiac parameters, according to research published online March 21 in *Diabetes*.

Saul Genuth, M.D., of Case Western Reserve University in Cleveland, and colleagues compared cardiac function and structure between patients who received intensive or conventional insulin therapy in the DCCT/EDIC study. The patients were treated with either intensive or conventional therapy for 6.5 years (DCCT study) and then followed for an additional 15 years (EDIC study).

According to the researchers, left ventricular indices were measured by CMR imaging in 1,017 of the 1,371 patients in the DCCT study. There were no differences in end diastolic volume, end systolic volume, stroke volume, cardiac output, left ventricular mass, [ejection fraction](#), left ventricular mass/end diastolic volume, and aortic distensibility between patients on intensive and conventional therapy. Prior glycemic exposure, measured by the mean DCCT/EDIC hemoglobin A1c, had a strong effect on most cardiac function measures.

"Fifteen years after the cessation of DCCT randomized glycemic treatment, there was no observable beneficial effect of intensive treatment of T1DM on [cardiac function](#) or remodeling assessed by CMR in the EDIC cohort. However, a significant association between some cardiac parameters and glycemic exposure was seen," the authors write.

**More information:** [Abstract](#)  
[Full Text \(subscription or payment may be required\)](#)

[Health News](#) Copyright © 2013 [HealthDay](#). All rights reserved.

Citation: Cardiac function unaffected by prior intensive insulin therapy (2013, April 12)  
retrieved 5 May 2024 from  
<https://medicalxpress.com/news/2013-04-cardiac-function-unaffected-prior-intensive.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private
-----------------------------------------------------------------------------------------------

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.