

# Immune intervention reduces beta-cell death in type 1 diabetes

February 26 2013

---



Patients recently diagnosed with type 1 diabetes have greater death of pancreatic  $\beta$ -cells compared with patients with long-standing diabetes, which can be reduced by treatment with teplizumab, according to a study published online Feb. 19 in *Diabetes*.

(HealthDay)—Patients recently diagnosed with type 1 diabetes have greater death of pancreatic  $\beta$ -cells compared with patients with long-standing diabetes, which can be reduced by treatment with teplizumab, according to a study published online Feb. 19 in *Diabetes*.

Jasmin Lebastchi, from the Yale University School of Medicine in New Haven, Conn., and colleagues compared  [\$\beta\$ -cell death](#) in 43 patients recently diagnosed with [type 1 diabetes](#), 31 individuals without diabetes, and 37 patients with type 1 diabetes treated with teplizumab or placebo.  $\beta$ -cell death was determined by measuring relative levels of unmethylated *INS* DNA in serum.

The researchers found that, compared with individuals without diabetes, patients with recent-onset diabetes had higher rates of  $\beta$ -cell death, while patients with long-standing diabetes had lower levels of  $\beta$ -cell death. After treatment of recent-onset [diabetes patients](#) with teplizumab,  $\beta$ -cell death was significantly reduced and  $\beta$ -cell function was significantly better preserved.

"Improvement in C-peptide responses with immune intervention is associated with decreased  $\beta$ -cell death," Lebastchi and colleagues write.

Several authors have [patent applications](#) for teplizumab and/or the assay of unmethylated insulin DNA and are on the scientific advisory board of Islet Sciences.

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

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

Citation: Immune intervention reduces beta-cell death in type 1 diabetes (2013, February 26)  
retrieved 2 May 2024 from  
<https://medicalxpress.com/news/2013-02-immune-intervention-beta-cell-death-diabetes.html>

<p>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.</p>
--