

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

February 26 2013

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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](#)  
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Citation: Immune intervention reduces beta-cell death in type 1 diabetes (2013, February 26)  
retrieved 20 April 2024 from  
<https://medicalxpress.com/news/2013-02-immune-intervention-beta-cell-death-diabetes.html>

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