

Adipose tissue insulin resistance up in obese- NGT, IGT, T2DM

January 9 2017



(HealthDay)—Resistance to the antilipolytic effect of insulin (Adipo-IR)

is increased in obese individuals with normal glucose tolerance (NGT), and in those with impaired glucose tolerance (IGT) and type 2 diabetes (T2DM), according to a study published online Jan. 4 in *Diabetes*.

Amalia Gastaldelli, Ph.D., from the University of Texas Health Science Center at San Antonio, and colleagues examined the role of Adipo-IR in a large group of NGT, IGT, and T2DM subjects. The authors evaluated Adipo-IR, peripheral IR, and β -cell function in 302 subjects with varying [glucose tolerance](#).

The researchers found that, compared with lean-NGT, fasting Adipo-IR was increased two-fold in obese-NGT and IGT and three-fold in T2DM (4.1 ± 0.3 versus 8.0 ± 1.1 , 9.2 ± 0.7 , and 11.9 ± 0.6 , respectively). Progressive decline in β -cell function correlated with a progressive impairment in free fatty acid (FFA) suppression during the [oral glucose tolerance](#) test; when subjects became overtly diabetic the increase in mean plasma glucose concentration became manifest.

"In conclusion, the progressive decline in β -cell function that begins in 'normal' glucose tolerant individuals is associated with a progressive increase in FFA and fasting Adipo-IR," the authors write.

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

Copyright © 2017 [HealthDay](#). All rights reserved.

Citation: Adipose tissue insulin resistance up in obese-NGT, IGT, T2DM (2017, January 9) retrieved 24 February 2023 from <https://medicalxpress.com/news/2017-01-adipose-tissue-insulin-resistance-obese-ngt.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.