

# Researchers important markers of high risk of type 2 diabetes

April 25 2008

---

Doctors are aware of a range of risk factors, mostly related to the patients' family history, overweight, and lifestyle, that contribute to the risk of developing type 2 diabetes. Now researchers at the University of Warwick have found markers that indicate endothelial dysfunction (changes in the cells which line the blood vessels) and sub-clinical systemic inflammation can also help identify a far greater number of people at high risk for future development of type 2 diabetes.

In a study led by Dr Saverio Stranges, Associate Professor of Cardiovascular Epidemiology at Warwick Medical School at the University of Warwick, the team looked at a protein called E-selectin, whose presence is an indication of endothelial dysfunction, white blood cell count and levels of albumin, which are marker for sub-clinical systemic inflammation.

They found high levels of E-selectin and white blood cell count with low levels of serum albumin were clear predictors of high risk for type 2 diabetes. The researchers found that traditional risk factors such as obesity or family history helped identify 65% of all patients who were at high risk of developing type 2 diabetes. But when the information from these three markers was added this increased from 65% to 73% which means doctors could be able to spot a greater number of people at risk of type 2 diabetes at an early stage.

The research used data taken from the Western New York Health Study. This was a six-year longitudinal study of diabetes and cardiovascular risk

factors among residents of Erie and Niagara Counties, New York.

Dr Stranges said: "High levels of E-selectin and white blood cells with low levels of serum albumin can indicate endothelial dysfunction and sub-clinical systemic inflammation. These findings corroborate the notion that both these conditions play an important role in the development of the disease. Endothelial dysfunction is also regarded as a key event in the development and progression of atherosclerosis. Finding new markers for type 2 diabetes will help us gain a greater understanding of the condition and possibly open up new possibilities for the way we prevent and treat it."

Source: University of Warwick

Citation: Researchers important markers of high risk of type 2 diabetes (2008, April 25)  
retrieved 24 April 2024 from  
<https://medicalxpress.com/news/2008-04-important-markers-high-diabetes.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.