

Disturbed regulation of insulin production

April 16 2008

With participation of scientists of the Helmholtz Zentrum Muenchen, the international study confirms findings that the disease is at least partly based on a misregulation of insulin producing cells.

Type 2 Diabetes is a chronic disease with rising prevalence rates throughout the world. In Germany, about 8 million people are affected. These numbers could even be an underestimation as a relatively high number of undiagnosed diabetics remains. The newly-published meta analysis on the genetics of type 2 diabetes casts new light on the origin of this disease. With participation of scientists of the Helmholtz Zentrum Muenchen, the international study confirms findings that the disease is at least partly based on a misregulation of insulin producing cells.

The newly published meta analysis, in which 90 scientists from more than 40 centers were involved, evaluated data of 15 European and American studies. It was possible to identify six new genes that play a role in the development of type 2 diabetes. This brings the number of genes associated with the disease to 16.

Type 2 diabetes is characterized by perpetually raised blood sugar levels, which, untreated, can lead to damage of blood vessels, the kidneys and other important organs. Life style factors, such as overweight and lack of exercise, play an important role for disease aetiology. Nevertheless, a strong genetic component also underlies type 2 diabetes, which has been studied for some years, with the help of linkage and association studies.

The knowledge now gained allows new insights into the mechanisms responsible for the control of blood sugar levels in the blood.

The meta analysis comprises altogether studies with more than 70,000 participants.

Source: Helmholtz Zentrum München

Citation: Disturbed regulation of insulin production (2008, April 16) retrieved 23 April 2024 from <https://medicalxpress.com/news/2008-04-disturbed-insulin-production.html>

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