

# Posttraumatic stress disorder associated with type 2 diabetes

May 16 2013

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The presence of posttraumatic stress disorder is significantly associated with the development of type 2 diabetes. This is the finding of scientists from the Helmholtz Zentrum München and the University Hospital Gießen and Marburg who worked with data from the population-based KORA cohort study. A sustained activation of the hormonal stress axis due to chronic stress symptoms is most likely a major causing mechanism. The scientists have published their results in the *Journal of Psychosomatic Research*.

People suffering from posttraumatic stress disorder (PTSD) have a significant risk of developing type 2 diabetes. PTSD is a prolonged [stress response](#) syndrome whose symptoms develop in the aftermath of extremely [stressful life events](#) of exceptionally threatening or catastrophic nature. A correlation between stress from [mental illnesses](#) and diabetes mellitus has already been under discussion for some time, but now Dr. Karoline Lukaschek from the Institute of Epidemiology II (EPI II) at the Helmholtz Zentrum München (HMGU) and Prof. Johannes Kruse from the Department of [Psychosomatic Medicine](#) and Psychotherapy, University Hospital Gießen and Marburg, and their colleagues have been able to provide the first proof of a significant association between the two illnesses.

To this end, they analyzed data from the population-based KORA cohort study in which the data were collected by means of a standardized survey of all participants and also a glucose tolerance test. A total of 50 participants was identified who suffered from PTSD, as well as an

additional 261 who displayed symptoms of partial PTSD. The study population also included 498 participants who suffered from manifest type 2 diabetes and 333 subjects who displayed signs of a pre-diabetic [metabolic state](#). The evaluation resulted in a significant association between type 2 diabetes and PTSD; prediabetes, on the other hand, was not associated with [psychological stress](#). The scientists surmise that the chronic stress that PTSD patients permanently suffer leads to changes in the hormonal response patterns. This can have a morbid influence on the metabolism and the glucose utilization. Subsequent studies should now examine the temporal and causal relationships further.

"Further clarification of the relationships between psychological factors and metabolic disorders will be an important task for diabetes research in the future", remarked Prof. Karl-Heinz Ladwig, research group leader at EPI II. "Patients with PTSD and other mental disorders should be given therapy that includes treatment of metabolic risk factors."

**More information:** Lukaschek, K. et al. (2013), Relationship between posttraumatic stress disorder and Type 2 Diabetes in a population-based cross-sectional study with 2970 participants, *Journal of Psychosomatic Research*, 74, 340-345. [www.sciencedirect.com/science/ ...  
ii/S0022399912003455](http://www.sciencedirect.com/science/.../S0022399912003455)

Provided by Helmholtz Association of German Research Centres

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