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PRESS RELEASE

Carbohydrate Cravings in Depression

Researchers from Bonn and Tübingen investigate the dietary preferences of depressed people

Bonn, February 05 - Depression affects 280 million people worldwide. The mental illness has been proven to lead to changes in eating behavior. Researchers at the University Hospital Bonn (UKB), the University of Bonn and the University Hospital Tübingen have discovered that although patients with depression generally have less appetite, they prefer carbohydrate-rich foods. The results have now been published in the journal "Psychological Medicine".

Every depression is different. Some people affected by it can no longer leave the house; others are restricted but can continue with their regular lives. These differences are also evident in appetites. Patients, especially those with severe depression, often report changes in their appetite. "Many people with depression suffer from a general loss of appetite. Others have more appetite during a depressive episode and even develop food cravings - especially for sweets. These changes can then lead to a change in body weight", explains corresponding author Prof. Nils Kroemer, who works at the University Hospital of Tübingen in the Department of Translational Psychiatry at the Department of Psychiatry and Psychotherapy and is also Professor of Medical Psychology at the Department of Psychiatry and Psychotherapy at the UKB and thus conducts research at the University of Bonn. "Despite these reports, little is known about the eating preferences of patients with depression, even though this information could perhaps promote new therapeutic approaches."

Carbohydrates are craved even in combination

The study now shows for the first time that depression is associated with specific changes in eating preferences, which can be explained by the composition of the foods shown. Crucial components for preferences are so-called macronutrients, which make up our diet: carbohydrates, proteins and fats. Carbohydrates are one of the main sources of energy for human cells.

People suffering from depression show a lower craving for foods rich in fat and protein compared to a healthy control group. In contrast, they tend to prefer carbohydrate-rich foods such as sweets. In the study, a higher proportion of carbohydrates also led to an increased liking of fat- and protein-rich foods for people with depression. In other words, patients with depression also had an increased craving for foods combining fat and carbohydrates such as milk chocolate. Such energy-dense foods also tend to characterize an unhealthy diet. Until now, it was assumed that the craving for carbohydrate-rich foods was linked to a greater appetite. "We were now able to show that this is not the case. In fact, carbohydrate cravings are more related to the overall severity of depression, especially anxiety symptoms," explains first author Lilly Thurn, a member of Prof. Kroemer's team at the UKB's Department of

Comm. Chairman of the Board

Prof. Dr. Bernd Weber Tel: +49 228 287-10900 Fax: +49 228 287-9010900 bernd.weber@ukbonn.de

Communication and media

Viola Röser Management

Tel: +49 228 287-10469 viola.roeser@ukbonn.de

Bonn University Hospital Communication and media Venusberg Campus 1 Building 02 53127 Bonn









Psychiatry and Psychotherapy at the time of the study and currently a Master's student at Maastricht University.

Keeping a closer eye on nutrition in the future

The results of the study now raise further questions for future research and treatment. "Since carbohydrate-containing foods control the reward response in the brain via different signaling pathways than fat- and protein-rich foods, it may be possible to derive better treatment approaches from this," explains Prof. Nils Kroemer.

In the future, an accompanying dietary therapy could therefore put to the test if a change in preference for certain foods occurs during depression. It could also be investigated whether a lasting improvement in depression is possible by optimizing the patient's diet.

"Therapies targeting the connection between the gut and brain appear particularly promising in the future. Initial studies have already shown that fasting or probiotic foods can have an antidepressant effect," says Lilly Thurn. "It has also been shown that people with depression have changes in their microbiome that could exacerbate various symptoms."

Participating institutions and funding:

In addition to the university hospitals in Bonn and Tübingen, the German Center for Mental Health (DZPG) and the Institute of Nutrition and Food Sciences (IEL) at the University of Bonn were also involved in the study. It was funded by the German Research Foundation (DFG).

Publication: Lilly Thurn, et al; "Altered food liking in depression is driven by macronutrient composition"; Psychological Medicine; DOI: https://doi.org/10.1017/S0033291724003581

Scientific contact:

Prof. Dr. Nils Kroemer Clinic for Psychiatry and Psychotherapy Bonn University Hospital (UKB) Phone: +49 228 287 11151 E-Mail: Nils.Kroemer@ukbonn.de

Image material:







Caption: Carbohydrate Cravings in Depression

Prof. Dr. Nils Kroemer and his team are investigating the preferred food of people with depression

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Press contact:

Dr. Inka Väth Deputy Press Officer at the University Hospital Bonn (UKB) Communications and Media Office at Bonn University Hospital Phone: (+49) 228 287-10596 E-mail: inka.vaeth@ukbonn.de

About Bonn University Hospital: The UKB treats around 500,000 patients per year, employs around 9,500 staff and has a balance sheet total of 1.8 billion euros. In addition to the 3,500 medical and dental students, 550 people are trained in numerous healthcare professions each year. The UKB is ranked first among university hospitals (UK) in NRW in the Focus Clinic List, had over 100 million third-party funds in research in 2023 and has the second highest case mix index (case severity) in Germany. The F.A.Z. Institute awarded the UKB first place among university hospitals in the category "Germany's training champions 2024".