# Debating food addiction’s role in the rise of type 2 diabetes in the UK



A growing body of research is examining the role of food addiction in the rising prevalence of type 2 diabetes in the UK, sparking debate among scientists about the potential addictive qualities of certain foods. The issue centres particularly on ultra-processed foods (UPFs), which are widely consumed and include items such as mass-produced chips, breakfast cereals, sliced bread, and ready meals. These foods often contain combinations of sugar, fat, and additives designed to enhance flavour, appearance, and shelf life.

Type 2 diabetes affects over four million people in the UK, a significant increase from fewer than three million in 2018. The condition is characterised by the body's inability to produce sufficient insulin or properly respond to it. Insulin is crucial for helping cells process sugar in the blood for energy. Without proper insulin function, sugar accumulates in the bloodstream, leading to serious complications such as heart disease, stroke, loss of vision, and even limb amputation due to poor circulation.

Researchers from the Federal University of Sao Paulo in Brazil recently conducted a meta-analysis involving nearly 16,000 individuals with type 2 diabetes, using the Yale Food Addiction Scale to assess the prevalence of food addiction within this group. The scale, created in 2009 by scientists at Yale University, identifies behavioural patterns typical of addiction, such as loss of control over eating, withdrawal symptoms when favoured foods are unavailable, and repeated failed attempts to reduce consumption.

The study, published in the British Journal of Nutrition, found that almost one-third of people with type 2 diabetes met the criteria for food addiction. These individuals were two and a half times more likely to exhibit addictive behaviours related to food compared to healthy controls. The underlying mechanism is thought to involve the brain's reward system, where UPFs high in fat and sugar stimulate the release of dopamine — a neurotransmitter associated with pleasure and reward. This neurological response is similar to the reaction triggered by addictive substances like alcohol or gambling.

The Priory Group, a provider of private addiction treatment services, lists warning signs of food addiction that include going to extreme lengths to obtain junk food, eating to the detriment of social and professional obligations, and hiding eating habits from others.

However, contrasting views emerged from a 2024 study led by the National Institutes of Health (NIH) in Maryland, where researchers administered an ultra-processed milkshake high in fat and sugar to 50 healthy young volunteers and conducted brain scans 30 minutes later. The study, published on the preprint server medRxiv, found no significant increase in dopamine levels, calling into question the neurological basis of food addiction driven by UPFs.

Dr Eleanor Bryant, associate professor of health and eating behaviour at Bradford University, told Good Health that while certain foods may engage the dopamine system, the impact appears too minimal to cause true dependence or addiction. She stated, “You can get addicted to eating but I don't think you can get addicted to food. It's a coping mechanism because, for many people, eating any food brings comfort and familiarity. And it's not as if you can give it up, like drugs or alcohol, so it makes it difficult to deal with.”

Professor Wasim Hanif, a diabetes and endocrinology expert at University Hospital Birmingham, noted that some individuals with type 2 diabetes experience difficulties regulating their appetite. However, he cautioned against labelling these behaviours as food addiction since such terminology “puts the blame on the patient.” He emphasised that not everyone who becomes obese through overeating develops diabetes, highlighting the significant genetic factors involved.

The ongoing discussion about food addiction and its relationship with type 2 diabetes underscores the complexity of the condition, encompassing behavioural, neurological, and genetic components. As research continues, differing perspectives highlight the challenges in defining food addiction and understanding its implications for public health.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://www.cambridge.org/core/journals/british-journal-of-nutrition/article/prevalence-of-food-addiction-and-its-association-with-type-2-diabetes-a-systematic-review-with-metaanalysis/788A935A2E9878BCD709D9D23C06BF6E> - This meta-analysis from the British Journal of Nutrition supports the claim that nearly one-third of people with type 2 diabetes meet criteria for food addiction and explores the association between food addiction and type 2 diabetes.
* <https://pubmed.ncbi.nlm.nih.gov/36996685/> - This PubMed article demonstrates a strong positive association between food addiction, assessed by the Yale Food Addiction Scale, and type 2 diabetes, corroborating the role of food addiction in diabetes prevalence.
* <https://www.diabetes.org.uk/living-with-diabetes/emotional-wellbeing/eating-disorders-and-diabetes> - The Diabetes UK resource explains emotional and behavioural aspects of eating disorders in diabetes, supporting the article's discussion on behavioural patterns and complications related to food addiction in type 2 diabetes.
* <https://www.cambridge.org/core/journals/british-journal-of-nutrition/article/type-2-diabetes-mellitus-is-associated-with-food-addiction-in-brazilian-women-living-in-poverty/2E4DCBD3327EEAA0A275EBC8A774B383> - This study from the British Journal of Nutrition examines food addiction in women with type 2 diabetes living in poverty, reinforcing the use of the Yale Food Addiction Scale and the role of ultra-processed foods in food addiction.
* <https://www.diabetes.co.uk/news/2022/feb/food-addiction-under-the-spotlight-in-latest-research-debate.html> - This article highlights the ongoing research debate around food addiction and its impact on diabetes and obesity, reflecting the contrasting scientific views and complexities described in the article.