

“Eating addiction”, rather than “food addiction”, better captures addictive-like eating behaviour

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In an extensive scientific review published in the journal *Neuroscience and Biobehavioral Reviews*, researchers from the [EU-funded NeuroFAST project](#) conclude that ‘food addiction’ is a misnomer because of the ambiguous connotation of a substance-related phenomenon. They propose the term ‘eating addiction’ to underscore the behavioural addiction to eating. The researchers stated that, similar to other addictive behaviours, eating can become an addiction for susceptible individuals, in situations where palatable energy-dense foods are readily available. This research could lead to better-focused treatment and prevention strategies for public health.

Addiction traditionally refers to substance-related disorders, i.e. involving drugs, nicotine or alcohol, but more recently non-substance-related conditions – e.g. gambling – are increasingly recognised as addictive disorders. It has also become popular to link the terms ‘food’ and ‘addiction’ to describe seemingly uncontrollable consumption of foods, particularly in the context of the increasing prevalence of obesity, as a possible way to understand the impact of psychological factors on weight gain; however, evidence for addiction to specific macronutrients is lacking in humans.

It is well known that substance misuse – or abuse – can alter signalling in the central nervous system, activating the ‘reward’ system in the brain. More recently, similar activation of the reward system has been identified in addictive behaviours that do not involve substance use. The authors suggest that the link of appetite, hunger, satiation and satiety with the reward system can be viewed as a basis for the development of addictive-like eating behaviour.

Eating is essential to ensure survival. Certain foods have naturally rewarding or reinforcing properties that increase the motivation to seek and obtain an adequate energy supply. However, the authors stress that just because eating engages these reward systems, it does not necessarily mean that specific foods, food ingredients or nutrients are able to evoke a substance addiction. In our current environment, the rewarding properties of some foods, for example high-sugar, high-fat combinations, might overwhelm both homeostasis (i.e. mechanisms that send signals to the brain informing that the body has sufficient energy stores) and a person’s cognitive restraint, i.e. the ability to say “no”. This impulse may lead to weight gain, in some, but not all, individuals.

The authors speculate that subtle differences in the various pathways involved in the reward system between individuals and the mechanisms underlying its activation account for variations in eating behaviour. These differences may be due to genetic, psychological, societal and/or environmental factors.

Support for addictive properties of certain nutrients such as sugar, fat and salt comes from animal studies. These studies generally use single food substances or very simple combinations, which make it difficult to interpret the findings, as humans do not eat single nutrients in isolation. Addictive behaviour in humans is

often accompanied by complex psychological and/or psychiatric aspects, such as memory, boredom, shame, guilt, habit, impulsivity, restraint, depression and anxiety; which are difficult to account for in animal studies.

Diagnosing and measuring an addictive behaviour is challenging. Only in 2013 did the updated diagnostic tool for mental disorders: the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) allow for the diagnosis of addictive eating behaviours within the category 'substance-related and addictive disorders'. DSM-5 is the world-wide standard reference for the classification of mental disorders used by both mental health professionals and researchers.

In addition to DSM-5, to assess addictive eating behaviours, the Yale Food Addiction Scale (YFAS) questionnaire is used. However, this questionnaire is based on the outdated DSM-4 version, which does not include diagnostic criteria for addictive behaviours; it includes only substance-related addictions. The researchers of the current review pointed out that future research is needed to update the YFAS to accompany the new DSM-5 standards.

Concluding that the term "food addiction" is inaccurate based on current evidence, and preferring a focus on "eating addiction", the authors of the review encourage more research in this area for a better understanding and diagnosis of addictive eating behaviours, and for prevention and treatment by means of public health strategies.

For further information please see:

[Hebebrand J, et al. \(2014\). "Eating addiction", rather than "food addiction", better captures addictive-like eating behavior. Neuroscience and Biobehavioral Reviews vol 47, 295-306 DOI: 10.1016/j.neubiorev.2014.08.016.](#)