

Sugar and addictive eating behaviour - what do we know?



Emotional and psychological dependence on sugary foods and drinks is a common talking point for people. There are lots of people who genuinely suffer from what they believe is food and sugar addiction, however official diagnostic criteria are yet to be agreed upon, and research is still in its early stages.

DID YOU KNOW?

The idea of sugar addiction (dependence) has emerged from data derived mostly from rat studies – where rats tended to choose a sugary solution instead of a non-sweetened food. Scientists argue this was because the sweeter food was more palatable and enjoyable.



Definitions

Addiction is a physical (and sometimes psychological) need, characterised by an almost irresistible compulsion to use a substance, accompanied by uncontrolled consumption if it's freely available, and withdrawal symptoms when there's no access to the addictive substance. An example, might be tobacco smoking or alcohol abuse.

Craving is an intense desire that is difficult to resist but it has no physical basis. An example might be our desire to eat chocolate to help us feel better.

Food addiction versus substance addiction

When thinking about "addiction", it's important that we understand what we mean.

Addiction may be described as a physical and psychological need to keep doing something even if we know it causes harm to ourselves or others.

When you become addicted to a substance like alcohol or cigarettes you have a continuous desire to consume it. Over time, you need more and more of the substance to achieve the same effect – this is known as tolerance to the substance.

If you tried to stop, you would become ill for a while as your body has become used to having that substance and finds it difficult to manage without it – this is called withdrawal.

This is why people who are addicted to a substance, such as tobacco, alcohol or illicit drugs, find it so difficult to give up – their bodies have developed a physical need for the substance.

Addictive eating is different from a substance use disorder. The level of pre-occupation seen for a substance is not the same as for food. Other traits like having social-impairment and risky use are not seen.

Unlike for substances, food addiction cannot be diagnosed as it has no accepted clinical criteria. There are some similar links but in general there is not enough research in humans to say that addictive consumption of food can be compared to drugs or alcohol.



We are genetically programmed to like sweet things when we are young but, instead of becoming tolerant to sugar and wanting more and more of it, our preference for sweet foods declines from adolescence onwards.



The feel-good factor

When you eat a food that can give a lot of energy, like sugar or fat, it also triggers feelings of pleasure. Our brains have evolved to respond favourably to these foods as they were essential for survival in earlier times when food was not always plentiful. It is natural that we should like sweet things because we enjoy them.

Studies of the human brain have shown that sweet foods activate brain areas associated with reward or pleasantness, similar to drugs of abuse. This is not surprising as they both provide pleasure. Since the brain is complex and many things like feelings and hormone levels can activate different areas of the brain, researchers have found it difficult to replicate the effects.

Think about other areas of life to which we are "addicted" – whether it be buying shoes or running in the park. These are life's "pleasures", which we want to do.

Addictive eating behaviour

While there is no chemical response in the body to explain why we can become dependent on eating a particular food, or why this might lead to over-eating or obesity, some people still believe that they have an addiction.

Addictive eating behaviour can be described as craving a particular food, spending all day thinking about it, and putting a lot of effort into purchasing, preparing and eating it. All this while knowing this particular food is not the best for us to eat, especially if we eat too much.

There are a range of habits, personality traits, psychological and mental health issues all at play. For example severe depression has been strongly linked to addictive eating among females, and especially in those with anxiety disorder. Those with impulsive behavior can find it more difficult to resist temptation. Binge-eating and other eating disorders are also involved.

Researchers are looking at these pieces of the puzzle to help identify those at risk and provide some evidence based support.

Why do we have cravings?

Eating is a complex behaviour involving many different hormones and systems in the body. A food craving is often seen as 'comfort eating', and is linked to emotional stress, feeling bored, anxious, upset, or just feeling low.

Food cravings are common, and quite individual. The most commonly craved food items are high in fat, such as fried chicken or potato chips, or have a combination of fat and sugar, such as cookies and ice-cream. Pizza is the most craved food item for men.



THE SHORT AND SWEET OF IT

1. Many people eat more than is healthy and believe they are addicted to food. This can result in obesity and related conditions such as diabetes and heart disease.
2. There are some similarities but in general there is not enough research in humans to say that addictive consumption of food can be compared to drugs or alcohol.
3. Addictive eating behaviour is a complex issue and research continues in order to identify those susceptible and provide evidence based support.

For individual health advice see a qualified health professional.

Further Reading

1. NeuroFAST [Internet]. University of Gothenburg. Consensus opinion on food addiction; 2013 [cited Nov 2016]. Available from: <http://www.neurofast.eu/consensus>
2. Westwater ML et al., Sugar addiction: the state of the science. H. Eur J Nutr. 2016; doi:10.1007/s00394-016-1229-6
3. Benton D The plausibility of sugar addiction and its role in obesity and eating disorders Clin Nutr 2010; 29(3): 288–303.
5. Burrows et al. Differences in Dietary Preferences, Personality and Mental Health in Australian Adults with and without Food Addiction. Nutrients 2017, 9(3), 285; <https://doi.org/10.3390/nu9030285>