

## Know the Facts

## Nutrition & Fitness



# Chocoholic & Big Mac Attack

## What is the science behind food addiction?

Food addiction is a disease which causes loss of control over the ability to stop eating certain foods. It manifests itself in uncontrollable cravings and excessive consumption of specific types of food.

Over the past 15 years 2,748 peer reviewed journal articles and books have been published on the chemical dependency and physical craving created by our favorite foods.<sup>1</sup>

### Dopamine = pleasure & wellbeing

The D2 dopamine receptor, the same biochemical mechanism that produces craving from other addictive substances is involved in food addiction. Certain foods such as sugar, fat and salt, a trio found in highly processed foods, cause a change in brain chemistry such that the message to eat becomes stronger. Neuro-imaging studies have shown that the dopamine areas in the brain light up in obese binge eaters when they just look at a picture of their binge food.<sup>2</sup>

It has also been shown that when individuals are given the opiate blocker naloxone, a medication given to people addicted to narcotics, they no longer have cravings for sugar, flour, and fats.<sup>3</sup>

### Serotonin = reduces pain and mediates anxiety and depression

Simple carbohydrates such as sugar and white flour, induce the release of insulin which lowers blood sugar and triggers serotonin release in the brain. So if you are stressed, you may find relief by eating something sweet. If you cannot stop the process of self-medicating with food, you may have crossed over to addiction. Some people may have a dysfunction in the feedback loop that tells us to stop eating and thus may end up eating an entire tub of ice-cream



## Physical Craving

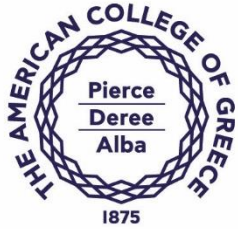
In people who experience cravings and cannot stop themselves from eating certain foods, when the food is removed completely from the diet, the craving is diminished or disappears completely.<sup>4</sup>

1. Food Addiction Institute, Philip Werdell, 2009

2. Wang as quoted by Park, "Addiction: From Drugs to Donuts, Brain Activity May be the Key," [www.docshop.com](http://www.docshop.com), August 9, 2007. See also Franken et al, "The Role of Dopamine in Human Addiction: From Reward to Motivated Attention, European Journal of Pharmacology, 526 No.1-2, 2005.

3. 54 Drewnowski, A, et al, "Taste Response and Preferences for Sweet High-fat Foods: evidence of opioid involvement," Physical Behavior, 51: p371-9, 1992.

4. Kessler, The End of Overeating: Taking Control of the Insatiable American Appetite, Rodale, New York, 2009. From an interview with food industry expert Dwight Risky who worked for Frito-Lay. (A study cited by Kessler showing that sugar or salt increase ingestion of dietary fat: Emmett and Heaton, "Is Extrinsic Sugar a Vehicle for Dietary Fat?" Lancet 345, No 8964 1995.)



## Know the Facts

## Nutrition & Fitness



### Are you an addict?

- Do you keep eating certain foods even if you're no longer hungry?
- Do you eat to the point of feeling ill?
- Do you end up eating more than planned when you start eating certain foods?
- When certain foods aren't available, do you go out of your way to obtain them?
- When you cut down on certain foods, do you have symptoms such as: anxiety, agitation, or other physical symptoms?
- Do you feel that eating food causes problems such as depression, anxiety, self-loathing, or guilt?
- Do you need to eat more and more food to reduce negative emotions or increase pleasure?



Yale Food Addiction Scale (Gearhardt, Corbin, & Brownell)



## Know the Facts

## Nutrition & Fitness



Take the online questionnaire designed by Yale University's Rudd Center for Food Science & Policy to see how you score. [orm.jotformpro.com/form/40524856884970](http://orm.jotformpro.com/form/40524856884970)

### What can you do

There is no easy solution. You may limit your food gradually or even avoid specific foods completely. Follow the general health and wellness guidelines:

- Eat healthy to replace processed foods with homemade meals using whole ingredients. Remove concentrated sources of salt, refined sugars, fat, and additional flavorings used to excite the brain's reward center.
- Exercise to elevate endorphins, the feel good substances in the brain, increase self-esteem and confidence, minimize mood swings and food cravings and empower the body as a whole.
- Meditate and use EFT (Emotional Freedom Technique) to control cravings that are linked to emotional challenges.
- Get professional help from psychiatrists and psychologists. Therapy and support groups can assist food addicts helping them create dramatic positive changes in their lives, physically, emotionally, and spiritually. Food Addicts Anonymous [www.foodaddictsanonymous.org](http://www.foodaddictsanonymous.org) is free and open to all.

Authored by Sophie Themelis, Wellness Coordinator, Pilates Instructor, ACG Health & Wellness Center.  
Edited by Christina Drakonakis, Associate Dean of Students, Office of Student Affairs, ACG Health & Wellness

**Sources & further reading:** [www.foodaddictioninstitute.org](http://www.foodaddictioninstitute.org), [www.ific.org](http://www.ific.org), [www.oa.org](http://www.oa.org), [www.conncoll.edu](http://www.conncoll.edu), [www.mercola.com](http://www.mercola.com), [www.foodaddictsanonymous.org](http://www.foodaddictsanonymous.org),