

# COMPULSIVE OVEREATING

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# Compulsive Overeating: Characteristics

- Uncontrollable eating
- Eating when not hungry
- Constantly returning to pick at food throughout the day, even when not hungry
- Feeling guilty about eating too much
- Eating alone due to shame over eating habits
- Anxiety over weight and body image
- Frequent unsuccessful dieting attempts

## Compulsive Overeating vs. Binge Eating Disorder

- **Compulsive Overeating:**
  - Consistently and constantly overeating, but not necessarily in excess every time one eat.
  - May only eat small amounts of food at a time, but the foods consumed at constant rate can lead to overeating.
- **Binge Eating Disorder:**
  - Consume large amount of food at one time, which leads to overeating.

(Ziauddeen, Farooqi, & Fletcher, 2012)

# Statistics

- Binge eating affects about 2% of the general population and 8% of people who are obese (DeAngelis, 2002)
- Few statistics exist with regard to compulsive overeating.
- Overeaters Anonymous conducted a survey in 2010 of members. The findings are as follows:
- Race: 93% white, 3% black, 4% other
- Gender: 87% female, 13% male
- Problem with food: 95% compulsive overeaters
- Age when food became a problem: 41% responded between age 1 and 10
- Education: highest percentage (32%) has a graduate or post grad degree

(Overeaters Anonymous, 2010)

# Overview: Are you addicted to food?

[http://www.cbsnews.com/8301-504803\\_162-57423314-10391709/are-you-addicted-to-food/](http://www.cbsnews.com/8301-504803_162-57423314-10391709/are-you-addicted-to-food/)

# Models of Compulsive Overeating

## Biological

- Certain foods (i.e. large fat, salt and sugar content) are similar to addictive substances.
- They affect brain systems and produce behavioral changes similar to those produced by drugs.

## Behavioral

- Compulsive overeating is a behavioral phenotype that is seen in a subgroup of people with obesity and resembles drug addiction.
- Parallels between the DSM-IV criteria for a substance-dependence and observed patterns of overeating

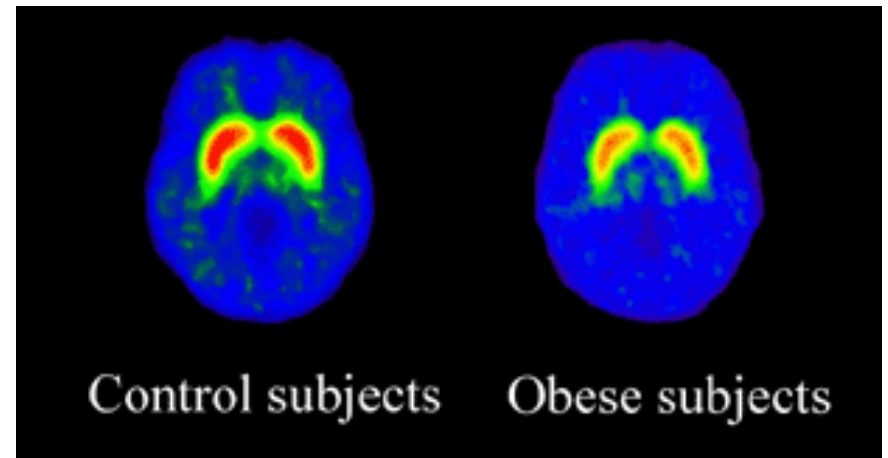
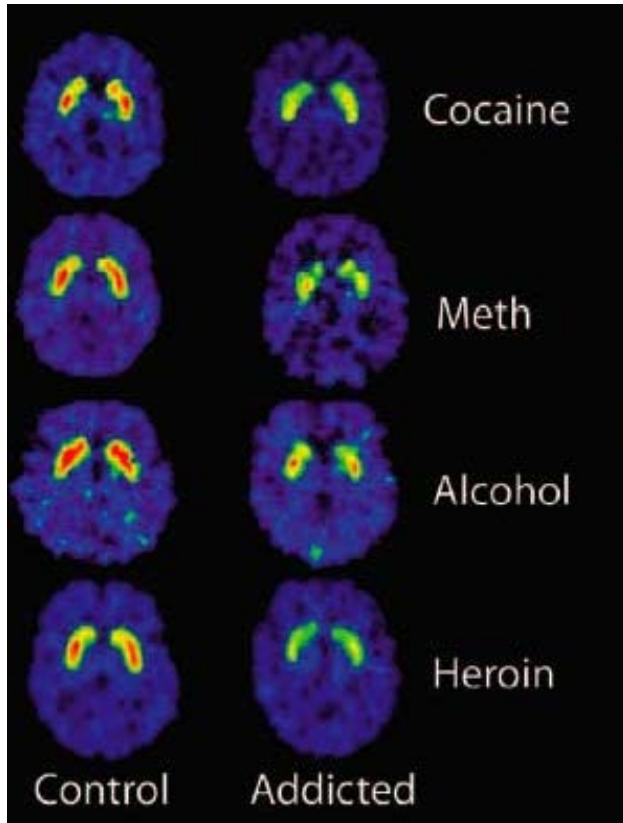
# Substance Dependence vs. Compulsive Overeating

DSM-IV criteria for substance dependence	Proposed food-addiction equivalent*
Tolerance: increasing amounts of drug are required to reach intoxication	Tolerance: increasing amounts of food are required to reach satiety
Withdrawal symptoms on drug discontinuation, including dysphoria and autonomic symptoms such as shakes and sweats	Distress and dysphoria during dieting
Persistent desire for and unsuccessful attempts to cut drug use	Persistent desire for food and unsuccessful attempts to curtail the amount of food eaten
Larger amounts of drug taken than intended	Larger amounts of food eaten than intended
A great deal of time is spent on getting the drug, using the substance or recovering from it	A great deal of time is spent eating
Important social, occupational or recreational activities are given up or reduced because of substance abuse	Activities are given up through fear of rejection because of obesity
Substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem caused or exacerbated by the drug	Overeating is maintained despite knowledge of adverse physical and psychological consequences caused by excessive food consumption

(Ziauddeen, Farooqi, & Fletcher, 2012)

# Dopamine D2 Receptors

- The study found that the brains of obese individuals have relatively few D2 receptors through which dopamine acts to stimulate pleasurable feelings.



The deficit of the same receptor has been implicated in addiction to drugs of abuse, suggesting it may be linked to a range of compulsive behaviors.

(Johnson & Kenny, 2012)

# Animal Research: Tolerance and Withdrawal

## Tolerance

- Rats maintained on an intermittent diet of sucrose solution and chow show behavioral and neurochemical changes similar to rats dependent on drugs.
- Rats on daily intermittent sucrose slowly increased their sugar consumption from 37 to 112 ml per day, possibly reflecting a tolerance effect.

(Gearhardt, Corbin, & Brownell, 2009)

## Withdrawal

- Removal of sugar from dependent animals results in a drop in body temperature and behavioral changes associated with withdrawal (i.e. anxiety and agitation)
- Withdrawal also included teeth chattering, forepaw tremor and head shakes
- Withdrawal has not been demonstrated with high-fat and cafeteria diets.



# Complications and Treatment

- This disorder can lead to severe health problems such as: high blood pressure, heart disease, diabetes and death.
- Compulsive overeaters often seek weight loss treatment instead of behavioral treatment for the disorder.
  - Weight loss treatment is ineffective unless it targets the behavior.
- Cognitive Behavioral Therapy – targets cognitive distortions
- Overeaters Anonymous – abstinence from flour and sugar

# Interview with Compulsive Overeaters

[http://www.youtube.com/watch?v=\\_msYtYth6kU](http://www.youtube.com/watch?v=_msYtYth6kU)

“When you are addicted to drugs you put the tiger in the cage to recover; when you are addicted to food you put the tiger in the cage, but take it out three times a day for a walk” - OA

# Analysis: Models of Compulsive Overeating

## Biological

- Highly palatable food is a dopamine-activating substance that acts on brain reward mechanisms like addictive drugs.
- Highly palatable vs. unrefined food is a very broad category.
- A particular food or level of nutrient (eg. fat percentage) that might distinguish a food as addictive would help to further the research.
- Furthermore, sugar addiction has been demonstrated in animals but not in humans.

(Davis & Carter, 2009)

## Behavioral

- Eating is analogous to other “behavioral addictions” (eg. gambling) in that the activity itself is rewarding and reinforcing.
- A better understanding of what factors influence why some people abuse drugs or gamble compulsively while others excessively over-indulge in food will help explain compulsive overeating.
- To what extent sociocultural factors play a role should also be examined.

# Criticisms of DSM Criteria

Proposed food-addiction equivalent*	Comment
Tolerance: increasing amounts of food are required to reach satiety	Not a convincing equivalent to drug tolerance because it assumes an equivalence between satiety and intoxication. In addition, key characteristics of binges are eating in the absence of hunger and to the point of physical discomfort (beyond satiety)
Distress and dysphoria during dieting	No convincing evidence of a human withdrawal syndrome for foods
Persistent desire for food and unsuccessful attempts to curtail the amount of food eaten	This criterion requires the application of severity and impairment thresholds to be meaningful
Larger amounts of food eaten than intended	This criterion requires the application of severity and impairment thresholds to be meaningful
A great deal of time is spent eating	It is difficult to apply this criterion because of the easy availability of foods in most developed societies
Activities are given up through fear of rejection because of obesity	A strict equivalence would require engagement in eating to the exclusion of other activities
Overeating is maintained despite knowledge of adverse physical and psychological consequences caused by excessive food consumption	This criterion requires the application of severity and impairment thresholds to be meaningful

(Ziauddeen, Farooqi, & Fletcher, 2012)

# Analysis: Tolerance and Withdrawal

## Tolerance

- High fat and sugar foods are consumed from birth unlike drugs and alcohol
- Additional studies are needed to determine if tolerance is specific to certain types of foods (eg. high-sugar foods).
- If tolerance is shown to other foods (eg. fruits and vegetables) tolerance would be an irrelevant diagnostic criteria.

## Withdrawal

- The animal studies described earlier do suggest that withdrawal can occur, but to date the only evidence in humans is from self reports discussing how people feel when dieting.

(Parylak, Koob, & Zorrilla, 2011)

# Defining Compulsive Overeating

- The research literature quite often uses the terms food addiction, compulsive overeating and binge eating disorder interchangeably.
- Correlation vs. Causation Debate
  - There is much debate amongst researchers as to whether or not compulsive overeaters, binge eaters or food addicts are all obese or, if obesity leads to these disorders.
- While I do adhere to the possibility of a compulsive overeating disorder, after reviewing research that pertains to compulsive overeating, it has yet to properly define and differentiate necessary characteristics and provide a diagnostic criteria that is beneficial to professionals in diagnosing such a disorder.
- In the event we do adopt compulsive overeating as a disorder, due to the evidenced based similarities with substance abuse, I believe we should classify the disorder under addiction and other related disorders.

# Case Study: What do you think?

- No father
- Cannot hold a steady job
- Takes long walks as a distraction
- Experiences troubles with intimate relationships
- Purchases fast food instead of preparing own food
- Realizes that when he stops eating, he feels worse
- Aware of economic structures (eg. wants to eat healthy but financially cannot afford it)
- Recently hospitalized
- Has attended OA meetings
- What do you think? Based on the small amount of background information provided, is this person a compulsive overeater?
- Should we adopt compulsive overeating as a diagnosis, should we classify it as an addiction?

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