

CAPTASA
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**Recognition and Treatment of
Refined Food Addiction:
A Substance Use Disorder**

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"Show me a man who's eating dessert, and I'll show you a man who's not drinking enough." W.C. Fields

Sugar and Alcohol

- Is it possible that one can be as addictive as the other?
- Do refined carbohydrates trigger the addictive process?

What is food addiction?

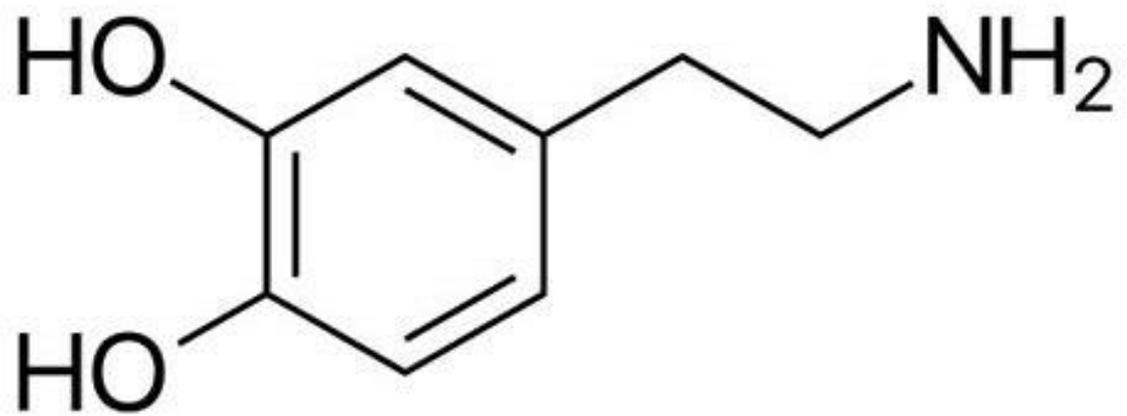
- A biogenetic condition of the body that creates craving for refined carbohydrates.
- This craving and its underlying biochemistry is comparable to the alcoholic's craving for alcohol.
- Scientists show us why.

DRD2A1 Reward Pleasure Gene

Dr. Ernest Noble and colleagues at UCLA linked dopamine receptor D2 A1 to addiction

Deficit of dopamine receptors causes subjects to be reward or pleasure deficient.

Linked to alcohol, cocaine and nicotine addiction, the A1 form of the reward/pleasure gene DRD2 has been linked to carbohydrate craving and compulsive eating.



According
to Dr.
Noble:

“It is well established that food (particularly carbohydrates), like alcohol, when consumed, increases brain dopamine levels. Thus individuals with the A1 allele, having a paucity of D2 dopamine receptors, have a deficiency in their dopamine brain reward system. To compensate for this state, they consume excessive amounts of food which eventuates in the development of obesity.”

Brain Imaging Techniques identify reduction in dopamine receptors

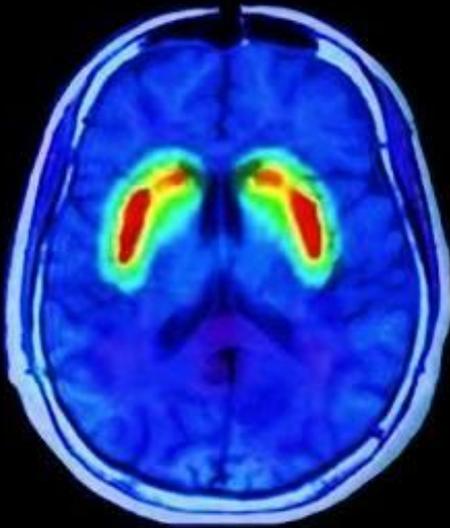
Neuroscientist Gene-Jack Wang and his team using PET scans found obese subjects had similar brain deficits to drug-addicted subjects.

Researchers measured brain dopamine reward/pleasure receptor levels in subjects with body mass index more than 40.

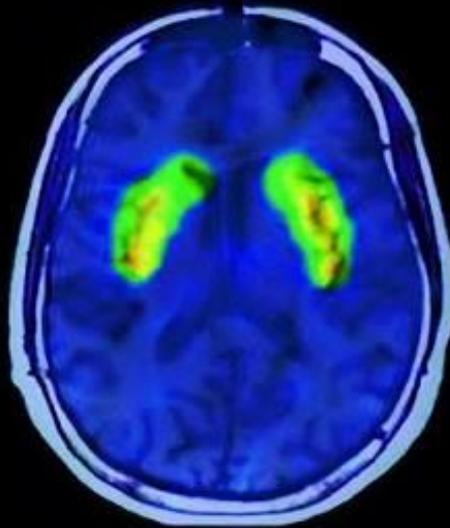
Morbidly obese subjects had reductions in dopamine receptors, which were similar to those they observed in drug-addicted subjects.

PET Brain Imaging

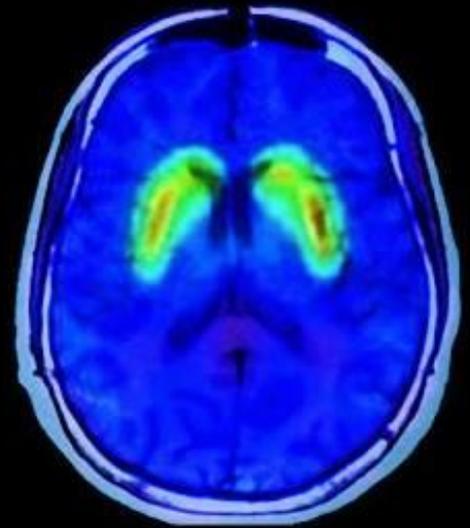
Normal



Cocaine



Obese



“The studies from our laboratory provide evidence that multiple but similar brain circuits (reward, motivation, learning, inhibitory control) are disrupted in drug addiction and obesity.”

According
to Dr.
Wang

The Brain of the Food Addict

- Is predisposed to respond differently to addictive foods due to dopamine receptor deficiencies
- Addictive foods stimulate and increase the transmission of the neurotransmitters dopamine and serotonin.
- When the brain is flooded with these neurotransmitters, euphoria results.
- Flooding leads to the compulsive pursuit of a mood change by engaging repeatedly in episodes of binge eating.
- Tolerance builds, increasing the frequency and amounts of the substance needed.



How do addictive foods compare to other addictive chemicals?

- Addictive food substances go through the refinement process.
- Refined foods are quickly absorbed.
- Refined foods alter brain and body chemistry and change mood
- The effect is rapid, intense and reliable.



Is sugar as addictive as cocaine?



Addiction Research Specialist
Serge Ahmed , PhD, University of
Bordeaux, France, demonstrates
that intense sweetness can
surpass cocaine reward.



Cocaine-addicted laboratory rats
consistently chose sugar over
cocaine.

“When society finally discovers that refined sugar is just another white powder, along with pure cocaine, it will change its mind and attitude toward refined food addiction.”

According
to Dr.
Ahmed

Sugar addiction similar to drug addiction

Studies by Avena, Rada and Hoebel, using laboratory rats demonstrate that the characteristics of sugar addiction are similar to the bingeing, withdrawal and craving experienced in drug addiction.

Their findings indicate that sugar is potentially as addictive because it is a substance that acts on brain circuits such as the dopamine and opioid pathways.

According to Dr. Hoebel

“...dopamine is repeatedly released in sugar-bingeing rats in a manner that is similar to the response to addictive drugs. After a few weeks of daily bingeing, the animals show neurochemical adaptations in the brain. Again, these changes are similar to what is seen with addictive drugs.”

Our Food Supply

- Most of our food supply has been processed and refined to point that it has become more a drug and less a nutrient.
- Our country is moving towards more refined and processed foods.
- Whole aisles of food in the grocery store contain no whole foods.
- The poor quality of our food supply is causing an increase in obesity and other health related issues.

Declining quality of our food supply

- Deception by food processors
- More than 1.6 billion dollars annually spent marketing junk food to kids
- Recommended at a Food Processors Convention: “If you put more sugar in your product, people will buy more.”
- Unhealthy foods are cheaper, readily available, extensively marketed, and often subsidized by your tax dollar.

Refined foods creating a health crisis

For food addicts refined foods act as mood-altering drugs with extensive negative health consequences.

Refined food choices contribute to serious health issues: physical, mental and emotional, creating a healthcare crisis.

Nancy Appleton, PhD, has listed 140 reasons why sugar is ruining your health, in her book, *Suicide by Sugar*.

Appleton's well researched list includes many health problems which could be eliminated by abstinence from refined and processed carbohydrates.

The job is daunting

- There is a national epidemic of obesity
- The health of our entire nation is being undermined by the quality of our food supply.
- Our children are being introduced to addictive food substance at an early age, especially sugar and caffeine.

What about the food addict?

- Obesity is obvious.
- What is not obvious is the normal or underweight person who uses unhealthy measures to control weight: drugs, smoking, purging, restrictive diets and excessive exercise.
- The fact is that food abusers and food addicts can come in any size or shape.

Signs of Food Addiction

- **Cravings for the Addictive Substance.** We have heard of foodaholics. It is no joke.
- **Loss of Control** over the use of the substance is demonstrated by binge-eating behavior.
- **Continued use of the Addictive Substance** even after the negative consequences have become apparent including physical, mental and emotional health.

A word
from
Dale:

“One thing I learned about my last relapse, was just how progressive the disease got, just as the AA book promised! When I used to binge in the past, I was always able to get back for a time, then binge again and get back again. This last time, the binge was constant...I ate all day and all night. It was no longer a few days and then over for a while! There was no break. It was terrifying! To actually be eating 24/7, a disgusting amount of food and NOT able to stop, so full that my body's natural response was to rid itself of the copious amount and I'd pick right up, not missing a beat! Never did I ever think that I would get that bad! The disease totally flattened me this time! My health suffered, I gained 62 pounds, I had an ulcer in my esophagus, have constant GERD, need surgery for a hiatal hernia (that even though I had it for years, it never bothered me) and more.”

Meet Stephanie

Fifth grade, 5'7" **185 pounds.**

Ninth grade, couldn't keep up and quit basketball due to my weight. I realized that boys don't like fat girls.

Senior year of high school 5'10½ **240 pounds.**
Size 24 and miserable.

Before high school graduation, went on exchange diet and went from **240 to 180 pound.** Still no boy friend but I had hope.

Summer before college, **gained weight .**

Off to college, used exercise as a way to combat overeating.

Fasted all day binge drank at night and binged on food when I got home.

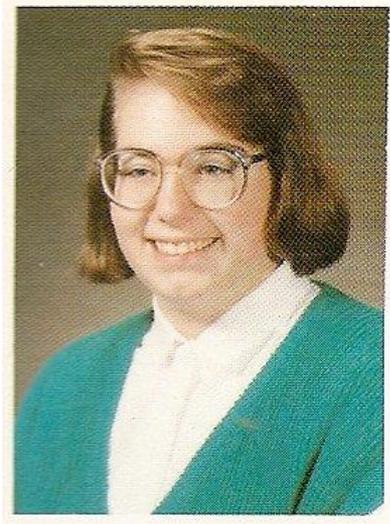
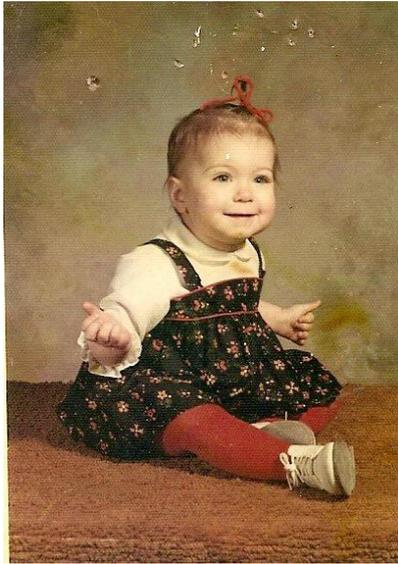
Started to gain weight rapidly and reached **240** again at the beginning of my junior year.

June 1996, started to lose again.

Started dating my husband started gaining again, within 2 years **gained 200 pounds.**

Married Bill at my top weight of **370 pounds.**





Progression

When I was 2 years old, while everyone else was sleeping, I would sit on top of the kitchen table in front of the sugar bowl and begin by licking my finger and dipping it in the sugar bowl. I would dump teaspoons of it into my glass of water and stir. I would drink the water, but the best was the syrup that formed at the bottom of the glass that I would then eat with my spoon

By fifth grade, my life revolved around food. I ate anytime I wanted and any amount I wanted. My mother hid food, but I would always find it. My sister hated me for eating her cereal and goodies all of the time, and I had such shame over it all. Every family gathering was a feast, and with many of us being food addicts, no one ever told me to stop. I would always come home from these gatherings with a terrible stomachache.

Off to college I went, by this time a binge consisted of a stromboli and 3 or 4 candy bars from a candy machine in the office where I worked. The summer between my junior and senior year of college, I would basically empty out the candy machine at work. Bingeing was **growing**.

After I married, a binge now consisted of two McDonalds meals or a large pizza, a bag of cookies, a bag of chips, a dozen doughnuts, a pint of ice cream, a bag of M&Ms (the big bag) etc. It basically filled a whole shopping cart and I would eat it all in one night. Once Bill and I were married, I did a lot of bingeing in the car and hiding stuff in drawers around the house. (Age 30)



Diagnosis

- Traditionally, food addiction has been treated as an "eating disorder" using the Diagnostic and Statistical Manual for Eating Disorders for diagnostic and treatment purposes.
- This has not been found to be effective for food addicts.
- Food addiction more accurately fits the criteria for substance dependence.

Substance
Dependence
is
characterized
by:

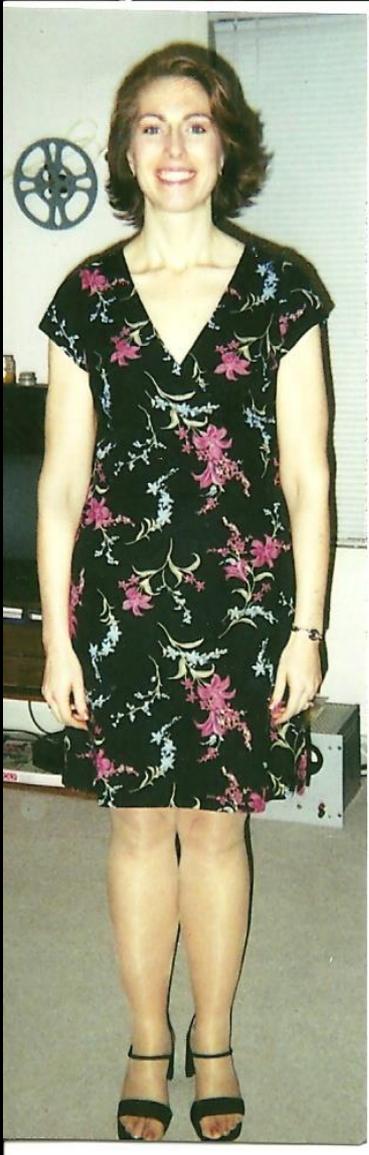
- Tolerance, it takes more food more often to get the desired effect.
- Withdrawal symptoms are often flu like.
- Substance use in larger amounts or for a longer duration than intended
- Attempts to cut back include dieting, shots, programs, amphetamines, smoking, hypnosis.
- Excessive time spent pursuing, using or recovering from use.
- Reduction or discontinuation of important activities because of use, especially anything that involves a bathing suit.
- Continued use despite adverse consequences

Addiction Model of Treatment for Food Addiction

- In the early 1980s, clinicians stepped out of the Eating Disorders Box and commenced using the addiction model of treatment for food addicts.
- The first steps of such treatment are to break the binge cycle, support through withdrawal and introduce the concept of abstinence from refined and processed foods.
- The next stage is to provide accurate information about the nature of food addiction--a disease that is primary, chronic, progressive, and potentially fatal.
- The client is encouraged to identify how food addiction affected his or her life and as well as the lives of family members.
- Orientation to twelve step recovery support programs, relapse prevention techniques and development of an ongoing support system help to ensure continuing recovery.

Abstinence

- As with all addictions, treatment and recovery are based upon abstinence from all addictive trigger substances.
- The need to abstain from addictive substances is common to both alcoholics and food addicts.
- Treatment of food addiction begins by introducing the concept of abstinence from addictive food substances.



Meet Stephanie in recovery!

- Getting the correct information about food addiction has saved and completely changed my life.
- My life is so full now I don't even have time to watch TV.
- I love the food plan and have a lot of variety.
- I have a relationship with God beyond my wildest dreams.
- My marriage is so much better.
- I started my dream job after 4 months of abstinence. I rarely call in sick because I want to be there and enjoy what I do.
- I've worked through all of the steps twice.
- The gifts just continue and I stand in amazement daily.

And here is the rest of the story!

- I now have over 19 years of abstinence by the grace of God.
- I was most likely infertile all of these years due to being extremely overweight and started to go into early menopause
- However, I delivered a healthy baby girl in January of 2007 and in March of 2009 I delivered my second healthy baby girl.
- Both pregnancies had no complications despite being aged 37 and 39 respectively.
- I only gained about 25 lbs. with both pregnancies and that came off within one month of their births.
- I'm convinced that I have 2 children because of abstinence; there is no doubt in my mind.
- Our children are so healthy





Food Addiction

One bite is too many and
a thousand are not enough!

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Please visit www.foodaddiction.org to watch web casts of these and many more scientists and clinicians who participated in the April 2009 Food Addiction Summit.