

Curb Your Cravings

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Food Cravings

- You're sitting at your desk at work or at home
- Mentally absorbed in a task or project
- Watching TV or reading a book
- Out of nowhere something hits your brain like a Mack truck
- Chocolate!
- I must have chocolate now!!!!

Food Craving

- You can almost taste the chocolate on your tongue
- You can almost smell the aroma wafting from the imaginary wrapper
- Your tongue tingles at the memory of the soft sweetness
- Although you were planning a dinner of chicken and veggies –plans have changed!
- You MUST have chocolate, STAT!

Chocolate the Most Craved Food

- Taste of chocolate on the tongue is likely to release **endorphins** in brain producing euphoric or pleasurable feeling
- Sugar in chocolate may raise **serotonin** levels & soothe gloomy mood & relax you
- Creamy taste of chocolate may soothe need for fat fueled by **galanin** hormone

Food Cravings

- Don't dictate everything we eat
- We are naturally driven to eat for survival
- Cravings go **beyond** the simple need to quench hunger and control blood sugar
- In fact – hunger often does NOT play a prominent role in where cravings come from

Food Cravings

- Most cravings revolve around the **hedonic** or pleasurable aspects of eating
- Confounding cocktail of *body, brain and chemicals* that can send us dashing to the grocery store or fast-food restaurant for a bag of burgers

Food Cravings

- Most everyone gets food cravings
- Gender differences DO exist
- In general women are more likely than men to experience food cravings
- Research: 100% of females and 70% of males experienced a food craving in past year
- ***Less than 40% of cravers said they were hungry when they experienced cravings***

Food Cravings

- Women in North America and Europe, in particular, salivate for sweets
- Typically women crave sugar-fat mixtures: ice cream, chocolate, cookies, pies, doughnuts & cake
- Men, tend toward the savory side of menu – BBQ, French fries, steak and potato
- Typically men “prefer” protein-fat mixtures - steak, meatloaf, potatoes and gravy, or hamburgers
- Hard pressed to find someone who craves broccoli or celery (without blue cheese dressing!)

These cravings have existed since the cavepeople...

- Researchers at Rockefeller University theorize that these are age-old craving differences between men & women, useful in days when:
 - cavemen needed to maintain high levels of muscle mass to hunt
 - cavewomen needed to maintain body fat stores in the event of pregnancy



What is a Food Craving?

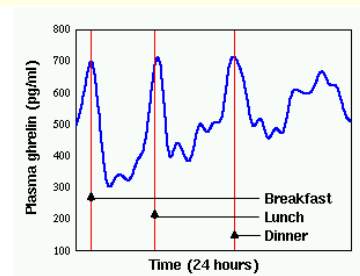
- Hunger and cravings are two different sensations
- A food craving is an *intense desire* to consume a specific food, as opposed to general hunger.
- "I want a pepperoni pizza with a chocolate milk shake"
- Hunger can be very non-specific: if you get hungry enough you will eat anything! I could eat a horse!

What is A Food Craving?

- The body regulates hunger
- The mind has greater power over cravings
- Hunger serves a more utilitarian purpose – signals our brain that blood sugar is low and it is time to eat!
- Stomach hunger cycle begins with the hormone ghrelin

Food Cravings

- Blood sugar and insulin levels begin to drop
- Ghrelin tells hypothalamus in the brain to release neuropeptide Y which stimulates our appetites
- Ghrelin regulates basic body functions: thirst, sleep, sex drive. More **primitive part of brain**



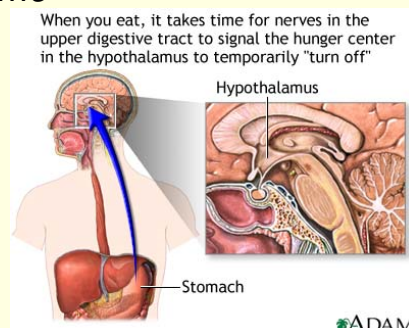
Adapted from Cummings et al. Diabetes 50:1714, 2001.

Food Cravings

- When we eat – fat tissues begin to expel leptin
- Tells our brains that our bodies are satisfied and we can *stop eating*
- Leptin also turns down the production of neuropeptide Y so our appetite is no longer stimulated
- Leptin Resistant

Food Cravings

- Hypothalamus also monitors our insulin and blood sugar levels to ensure that we've eaten enough to bring those levels back up
- This process takes *time*
- We can **OVEREAT** before we have processed all the messages



Food Cravings

- So what happens when our mind takes over?
- Things get a little more *complicated* when food desires move from stomach to the brain

Stomach hunger vs Mind hunger

- Stomach hunger: one-line analog phone
- Mind hunger: high end cell phone with camera, internet and MP3-player capabilities

Food Cravings

- Mind hunger isn't absolutely necessary for survival
- Are cravings bodies' way of telling you that you're missing important nutrients?
- Scientists have debunked theory
- If true – load up on things that contain vastly more nutrients

Food Cravings

- Why do we crave foods high in fat and calories?
- Fatty, sugary food release chemicals called opioids into our bloodstream
- Opioids bind to receptors in our brains and give us feelings of pleasure – even mild euphoria
- This also activate the dopamine reward system

Food Cravings

- Dopamine is a ***feel-good hormone*** also produced during sex, compulsive gambling and drug activity
- Dopamine stimulation = chemical reward!
- Food craving similar to drug addiction – both follow similar neural pathways

Food Cravings

- Our brains “reward” us by releasing serotonin and endorphins when we eat sugar or other refined carbohydrates that are easily converted to glucose (the simplest sugar).

Neurotransmitters

- **Serotonin** – triggers cravings for sweets (SSRIs)
- **NPY** - triggers a desire for pancakes and waffles in the morning
- **Galanin** - triggers cravings to sweet-and-creamy or meat-and-potatoes by mid-afternoon
- **Endorphins** – triggers eating desserts - pleasurable. Brain releases endorphins when we are in any kind of pain (runner's high) and when we eat sugar!

Food Cravings

- As we age we also form **sensory memories** in relationship to food
- Food = love
- Familiar foods = comfort

Food Cravings

- Cravings can be driven by emotions or situations
- Party = cake
- After dinner = ice cream
- TV = popcorn
- Fight with friend = pizza and beer
- Acknowledging this link between food and emotional hunger is first step toward crushing a craving
- Only true biological craving – pica (dirt, chalk) iron deficiency



Food Cravings

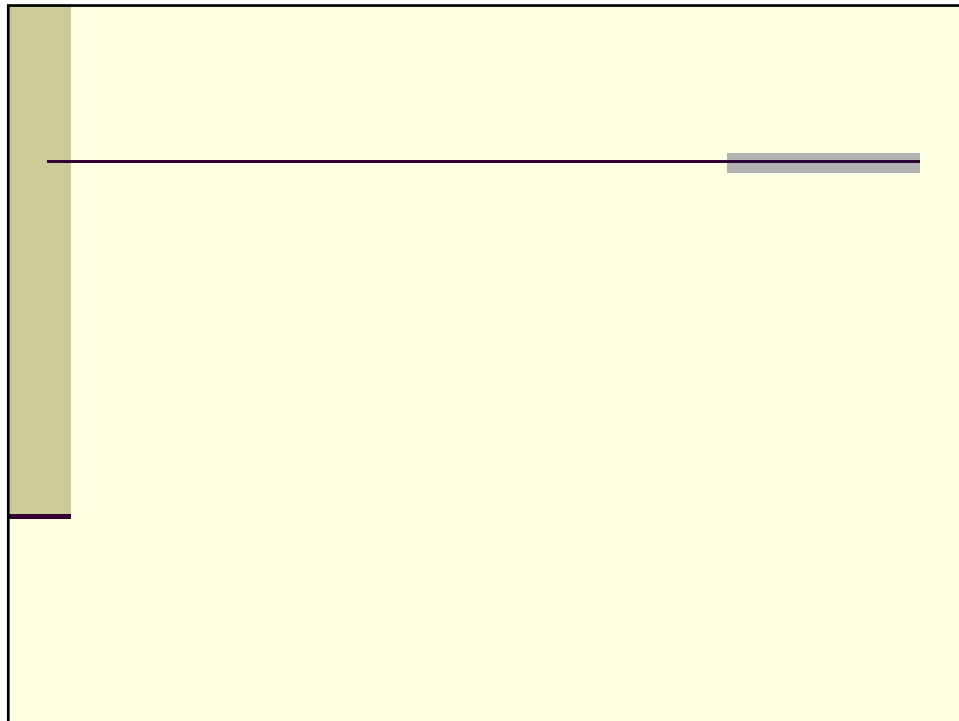
- Food is never just fuel
- Body reacts to food in many ways
- Feeling of pleasure, relief from unpleasant physiological states such as anxiety, stress and low mood. Cry – Mom gives us a cookie!
- As babies we learn to associate eating with comfort, caring, human connection
- Human cultures have always given many deep, social and even spiritual meaning to food and eating

Food Cravings

- Psychological factors can also influence the intensity and nature of our food cravings
- ***Emotional state*** normally has a greater impact on cravings than hunger
- Sensory memories of foods reinforce the cravings

Food Cravings

- Suppressing food cravings can prove to be a monumental task!
- But repeatedly succumbing to your every gastronomic desire can **negatively affect the dopamine reward system**
- If you continually eat chocolate you raise the threshold of that reward (drug addiction)
- Takes more and more brownies to regain that initial pleasure



Eating to boost one's mood

- Feel sad, down, disappointed, low...?
- Carbohydrates: starches, pasta, or sweets, raise levels of serotonin in the brain
- Carbohydrates boost mood but we need to eat them in moderation!
- Too much has opposite effect

You are born with a “craving” set

- Each person is born with a unique nerve chemical profile & set of cravings
- This fact is not a license to binge
- You can't change your genetic makeup
- You **can** coax these neurotransmitters
- Even small changes in balance of nerve chemicals can have far-reaching effects on your mood, energy levels & appetite

PMS and Over Indulging Cravings

- Cravings amplify during the two weeks prior to a woman's period, probably because fluctuating estrogen levels have a domino effect on brain chemistry, sending many appetite control chemicals into a tailspin
- But overeating sugar, salty or high-fat snack foods, or caffeine will only make PMS symptoms **worse!**

Give in to it or let the craving pass

- Sometimes a craving may pass after about 15 minutes
- Go for a walk, distract yourself
- Wave cresting . . .
- Repeatedly resisting cravings may set you up for bingeing

Think About It

- In an experiment described in the journal *Science*, researchers asked volunteers to devote about a minute and a half to methodically imagining chewing and swallowing 30 M&Ms, one after another.
- Then, when presented with a bowl of M&Ms, those volunteers ate about half as many candies as volunteers who imagined eating only three M&Ms, or none at all.
- Obsessing about a particular food in a particular way appeared to dampen its appeal in an unusual study that demonstrates that merely thinking about a food - without actually seeing, touching, smelling or tasting it - can help sate hunger through a process called habituation.
- Habituation occurs when extended exposure to a stimulus decreases an organism's response to it, and many experts think it helps regulate eating.

Should We Just Give Up Carbs?

- No!
- When we eat foods that contain complex carbs our bodies convert them into a simple sugar called glucose
- Brain **MUST** have glucose
- Essential to eat healthy carbs
- Carbs help tryptophan (an amino acid) get into the brain
- Tryptophan is converted to serotonin

Refined Carbohydrates

- When carbs are refined they lack the antioxidants and fiber that help our bodies to register fullness
- Refined carbs don't trigger the signals that tell our brain we've had enough and are now fully sated
- The more refined a food it, the more it's been stripped of this natural, information-rich fibers, fats, protein, vitamins and antioxidants
- Refined carbs digest too quickly and spike insulin and damage metabolism and lead to insulin resistance and MORE CRAVINGS!

Key Nutrients Enhance Serotonin Production

- Vitamin C – helps convert tryptophan (from foods) into serotonin
- B-Complex vitamins – helpful in metabolizing carbs for the body to use. Niacin essential to convert tryptophan to serotonin
- Zinc – aids insulin in doing its job (getting glucose into the cells)

How To Reduce Food Cravings

- **Eat at regular intervals during the day**
- If you skip meals or go too long without eating, your blood sugar levels drop too low
- Perfect recipe for food cravings, overeating or even binges
- Allow 3-4 hours between meals and snacks
- 3-6 pm is prime time for cravings
- An apple and 10 almonds
- Cottage cheese and fruit
- Fig bar with Greek yogurt
- Dark chocolate w/ nuts

How to Reduce Food Cravings

- **Cut back on caffeine and sugar**
- These quick-fix solutions only *amplify* or aggravate cravings in the long run

How to Reduce Food Cravings

- **Do not reduce your calorie intake too low**
- Weight loss diets of less than 1200 calories for most people are not recommended
- Choose nutrient dense foods – with high nutritional value rather than empty calories
- Healthy fats, quality protein, complex carbs in fruits and vegetables help keep cell-signaling on an even keel in the body
- When you cut down on sugar (or eliminate it entirely) you actually crave less sugar

How to Reduce Food Cravings

- **Try eliminating sugar for 3-5 days**
- See how you feel
- Eliminating the cyclical crash-and-burn bursts of serotonin and endorphin your brain gets from sugar and refined carbs can help your body **normalize its receptors** and neurotransmitters, so the brain isn't constantly sending the message that it needs more sugar!

How to Reduce Food Cravings

- **Add a high-quality multivitamin-mineral, plus omega-3 fats**
- Covers your nutritional bases
- Omega-3s help regulate mood and inflammation

How to Reduce Food Cravings

Give in to it occasionally, especially if the craving doesn't go away

- Eat the desired food instead of stuffing yourself with everything but kitchen sink
- Have a serving – eat it mindfully – then go do something else!

How to Reduce Food Cravings

- Buy single-serve food packages
- Go to Dairy Queen – don't bring home a ½ gallon of ice cream
- Mix higher sugar foods with **protein and healthy fat**
- Stick of Mozzarella cheese, nuts, glass of milk, Greek yogurt
- Helps balance the insulin sugar surge
- Gentler increase in blood sugar and insulin

How to Reduce Food Cravings

- Sweeten with natural sweeteners like stevia or xylitol instead of sugar
- Less spiky sugar surge
- Allow a gentler increase in blood sugar and insulin

How to Reduce Food Cravings

- **Create a ritual**
- Make eating treats special
- Instead of eating a half-gallon of ice cream in front of the freezer or TV, spoon some into a nice bowl, sit in your favorite chair, eat slowly and savor each bite



“The best way to lose weight is to have your stomach stapled...to your upper lip.”

How to Reduce Food Cravings

- **Reduce Stress**
- Stress increases cortisol
- Cortisol makes our hormones of hunger ramp up – REFUEL!
- Chronic stress can lead to adrenal fatigue – the only way to get through the day is drinking lots of caffeine and eating lots of sugar for bursts of energy
- Sets you up for further cravings and more energy depletion

Yoga and Meditation

- Research published in the journal *Eating Behaviors* suggests a daily dose of meditation can help stop binge eating
- Researchers from Rush University Medical Center challenged 70 overweight men and women between the ages of 18 - 75 to meditate for as little as 8 minutes a day for an average of 8 weeks.
- Participants were instructed to use meditation during times of stress, sadness, and boredom.
- When participants felt an automatic need to indulge, they became increasingly mindful of the emotions taking hold—emotions having nothing to do with hunger—and were then able to control their desire to binge by making a healthier choice.

How to Reduce Food Cravings

- **Check for food sensitivities**
- Food sensitivities can damage and inflame the mucosal lining of the digestive tract
- They can create immune complexes that lead to intense cravings
- Many people crave the exact foods they are most sensitive to
- Gluten is a good example

How to Reduce Food Cravings

- When you eat a food you're sensitive to and it doesn't digest well, the undigested bits permeate your gut and enter your circulation where they don't belong.
- Antibodies rush to the scene, creating an immune response.
- But the immune response doesn't just create enough antibodies for that one time.
- It anticipates another 'attack.' And when it has all these antibodies and nothing to break down, they crave it. And in turn, so do you.

How to Reduce Food Cravings

- **Exercise**
- People who exercise report fewer cravings than non-exercisers due in part to the mood altering **Endorphins** released during physical activity
- Exercisers tend to feel more in control of their bodies & may be less likely to binge

How to Reduce Food Cravings

- Sweeten up your Life!
- Enhance the sweetness in your life by nurturing yourself in ways other than using food
- Figure out what makes you happy and examine the things that are doing the opposite
- ***Be Gentle on Yourself – It Takes Time to Develop Newer, Healthier Behaviors***

Resources

- **When Food is Love by Geneen Roth (or any of her books)**
- **The Beck Diet Solution by Judith Beck**

