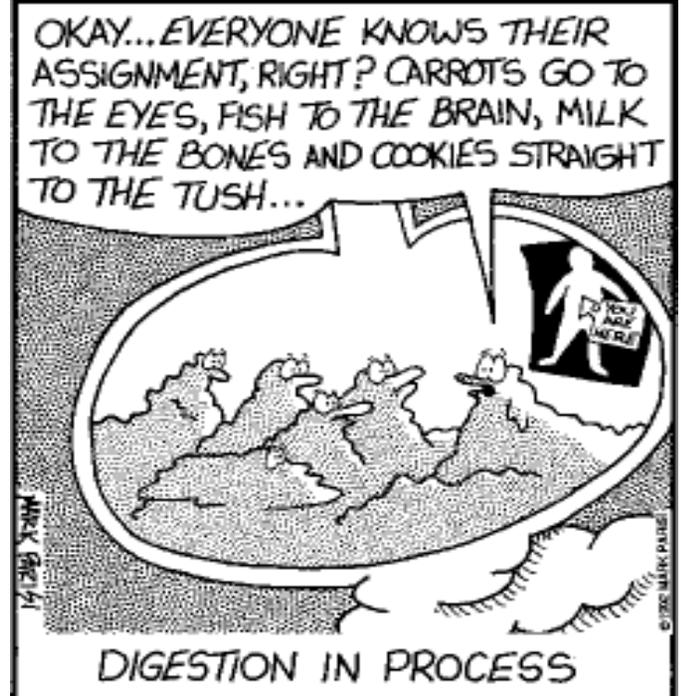


APPETITE VS. HUNGER



"Appetite suppressants? Uh...yeah...they're back there in...uh...aisle nine."

off the mark by Mark Parisi
www.offthemark.com



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What is Appetite?

- It is the desire to eat.
- Affected by external factors; psychological
- Often in the absence of hunger
 - Example smelling/seeing fresh baked cookies
- Prompts the question: What do I want to eat?
- The appetite is concerned with the immediate effects of eating factors including salivating, tasting, chewing, and swallowing.

What affects appetite?

- Environment
 - Temperature, humidity
- Specific appetites/cravings
 - salt, “sweet tooth”
- Learned preferences
 - Alcohol
 - Smoking
- Pleasurable factors
 - Palatability, taste, texture, odor, mouth-feel

What affects appetite?

- Social influences
 - Religion, culture
- Medication influences
 - Sedatives
 - Prednisone
- Disease influences
 - Tumor products
- Metabolic influences
 - Energy requirements, insulin, various hormones, brain signals/messengers

Ways to Combat Appetite



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- Eat more fiber and less refined carbohydrates
- Brush your teeth and floss
- Have a glass of water
- Be consistent with eating habits
- Eat slower
- Do something to keep your mind off of it

What is Hunger?

- Internal drive to eat; physiological
- Controlled by internal body
- Largely affected by hormones and the Central Nervous System
- Prompts question: When can I eat?
- Cues tell us we are hungry, such as an empty or growling stomach, a decrease in blood glucose levels, and alterations in circulating hormones (e.g., increased glucagon and ghrelin and decreased insulin).

What influences hunger?

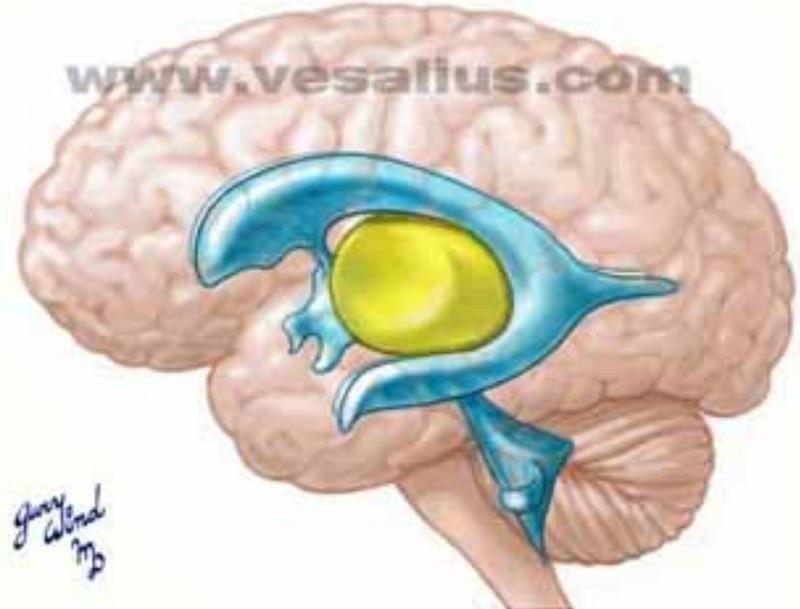
- The Central Nervous System
 - Hypothalamus
 - Vagus nerve
- Peripheral Body Systems
 - Hormones: insulin, growth hormone, sex hormones, glucagon
 - Stomach stretching
 - Liver and adipose

What influences hunger?

- Environmental factors
 - Temperature
 - Humidity
 - Availability
- Emotional factors
 - Stress
 - Mood
- Disease States
 - Obesity
 - Anorexia
 - psychopathologies

The Hypothalamus

- Part of the brain that controls eating
 - When feeding cells are stimulated, they signal you to eat.
 - When satiety (fullness) cells are stimulated, they signal you to stop eating.
 - Controls the release of all hormones



Hormonal Control

- Endorphins
 - Natural body tranquilizer that can prompt you to eat.
- Serotonin
 - Neurotransmitter that is released as a result of carbohydrate intake
 - High levels decrease desire for carbohydrate and induces calmness
- Nutrient receptors
 - In small intestine
 - Gives the feeling of satiety/fullness
 - Communicates with the brain
 - Informs the brain of the presence of nutrients in the small intestine
 - Feeling of satiety with the infusing of carbohydrates or fats in the small intestine

Leptin and Ghrelin

- Leptin
 - A hormone produced by the adipose tissue
 - Increases with larger fat mass (and decrease desire to eat)
 - Decreases with lower fat mass (and enhance desire to eat)
 - Counters the actions of ghrelin
- Ghrelin
 - A hormone produced by cells in the stomach and pancreas
 - Stimulates appetite
 - Levels increase before meals and decrease after meals
 - Stimulates the release of growth hormone

What is Satiety

- the physiological and psychological experience of “fullness” that comes after eating and/or drinking.
- A number of factors influence the experience of satiety including gastric distention, elevations in blood glucose and alterations in circulating hormones (e.g., increased insulin and cholecystokinin, and decreased glucagon).

Making Satiety a Weapon for Weight Management

- The concept of energy density:
 - **Very low.** Most fruits and vegetables, skim milk, and broth-based soups. Eat as much as you like.
 - **Low.** Many cooked grains; cereals with low-fat milk; low-fat meats, beans, and legumes; low-fat mixed dishes; and salads. Eat relatively large portions.
 - **Medium.** Includes meats; cheeses; high-fat mixed dishes; salad dressings; some snack foods. Eat in moderation.
 - **High.** Includes crackers; chips; chocolate candies; cookies; nuts; butter; and full-fat condiments. Control portions carefully.
- Learn emotional and social triggers
 - Ask yourself this question: "On a scale of one to 10, how hungry am I now?"
- Fill up on fruits and vegetables, whole grains, legumes, low-fat dairy, and foods with a high water-content.

Emotional Eating

- Experts estimate that 75% of overeating is caused by emotions.
- Many often learn food becomes comfort.
- Environmental Cues to Emotional Eating:
 - **Social.** Eating when around other people. For example, excessive eating can result from being encouraged by others to eat; eating to fit in; arguing; or feelings of inadequacy around other people.
 - **Emotional.** Eating in response to boredom, stress, fatigue, tension, depression, anger, anxiety, or loneliness as a way to "fill the void."
 - **Situational.** Eating because the opportunity is there. For example, at a restaurant, seeing an advertisement for a particular food, passing by a bakery. Eating may also be associated with certain activities such as watching TV, going to the movies or a sporting event, etc.
 - **Thoughts.** Eating as a result of negative self-worth or making excuses for eating. For example, scolding oneself for looks or a lack of will power.
 - **Physiological.** Eating in response to physical cues. For example, increased hunger due to skipping meals or eating to cure headaches or other pain.

Rating Your Hunger

- 0: Ravenously hungry, salivating.
- 1: Hungry, belly growling.
- 2: Mildly hungry; you may need a light snack to hold you over, but you could hold out a little longer.
- 3: Satisfied; don't need to eat any more.
- 4: More than satisfied; ate too much.
- 5: Stuffed like a Thanksgiving turkey.

- Ask yourself three questions before grabbing something to eat:
 - **When was the last time I ate? If it was less than 2-3 hours ago, you're probably not feeling real hunger.**
 - **Could a small, nutritious snack rich in fiber tide you over until the next meal?**
 - **Can you drink a glass of water and wait 20 minutes?**

5 Tips from WebMD

- **Exercise portion control.** The old expression "your eyes are bigger than your stomach" may be sage advice. Researcher Barbara Rolls and her colleagues at Pennsylvania State University have found that the more food you're served, the more you're likely to eat. The theory is that the environmental cues of portion size override the body's cues of satisfaction.
- **Eat foods that are bulked up with water or air,** which gives them more volume and makes them more satisfying. Increasing the bulk in your meals helps fill your belly, signals satiety to your brain, and allows you to feel full on fewer calories. Broth-based soups, stews, hot cereals, and cooked grains are good examples of the foods that go the distance.
- **Fiber** can help satisfy hunger and reduce appetite. Choose high-fiber foods like fruits, vegetables, legumes, popcorn, and whole grains. Starting a meal with a large salad can help you eat fewer calories during the meal because of the fiber and water content of greens and vegetables. Also keep in mind that fresh fruits have more fiber and water than dried ones.
- **Avoid the buffet line.** When there are lots of choices, most people eat more. Keep it simple, limit the number of courses, and fill up on the high-fiber foods first.
- **Include lean protein** in your meals and snacks to help them last longer in your stomach. A handful of nuts, some low-fat dairy, soy protein, or lean meat, fish, or chicken will tide you over for hours.