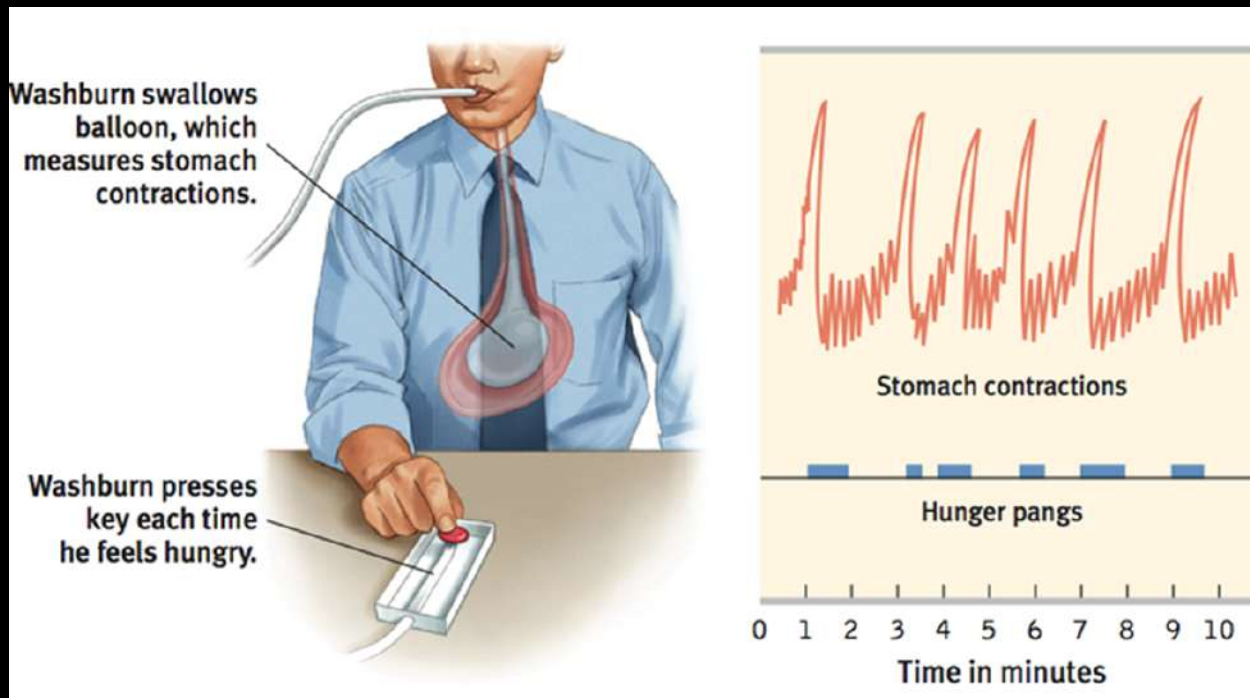


Unit 8A Motivation & Emotion: Motivation

Hunger

The Physiology of Hunger

- Physiological needs are powerful
- Washburn Study
 - Contractions in the tummy
 - showed that stomach contractions accompany our feelings of hunger
 - If the pangs of an empty tummy aren't the only sources of hunger, what else is there?



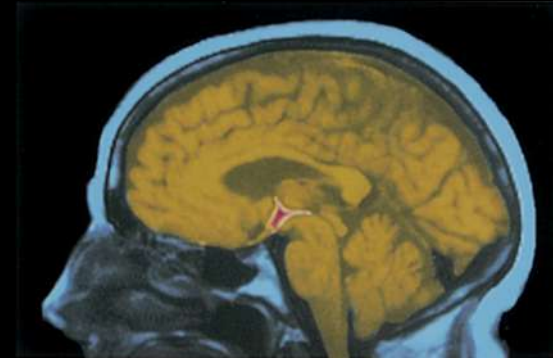
The Physiology of Hunger – Body Chemistry

- The body naturally regulates our calorie intake through hormones and the brain
- **Glucose:** form of sugar in the blood that provides energy
 - When its low we feel hungry
- **Insulin:** increases in hormone
- **Insulin** diminishes glucose in blood , partly by converting it to stored fat



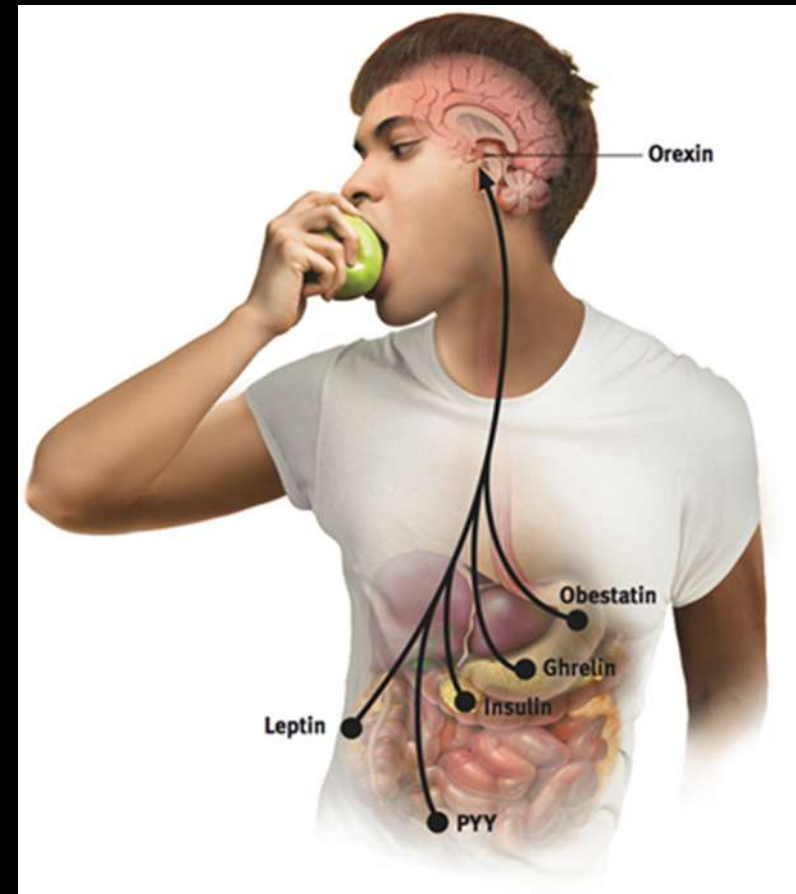
The Physiology of Hunger – Brain

- your brain monitors your blood chemistry and your body's internal state
- brain can trigger hunger
- tummy, intestines, and liver send signals to brain to motivate eating or not
- Hypothalamus : hunger controls located here
 - Lateral hypothalamus: along the sides of hypo, brings on hunger. (What happens if you destroy, no interest in food even if starving)
 - Orexin : Hunger triggering Hormone
 - Ventromedial hypothalamus: lower mid hypo, depresses hunger (stimulate and you will stop eating, destroy and you become fat)



The Physiology of Hunger – Appetite Hormones

- The hypothalamus also monitors other types of appetite hormones
 - **Ghrelin**- a hunger arousing hormone, tummy produces it, tummy surgery sections off part of tummy thus less ghrelin is produced
 - **Obestatin**- sister hormone, sends out fullness signal and suppresses hunger
 - **PYY**- appetite suppressant, secreted by digestive tract
 - **Leptin**- a protein, secreted by fat cells and diminishes the rewarding pleasure food
- **Set point**
 - some researchers don't believe in set point rather it is the point in response to calorie intake and output
- **Basal metabolic rate**



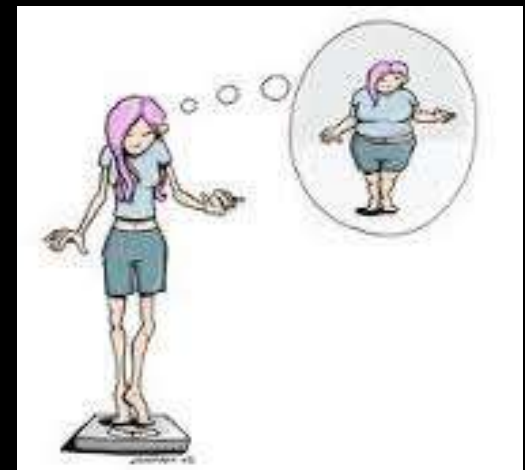
The Psychology of Hunger

- Body chemistry and environmental factors together influence when we feel hungry and what we hunger for
- Sweet and Salty are generic & universal
- Culture affects what we prefer to eat
- We have adaptive taste preferences

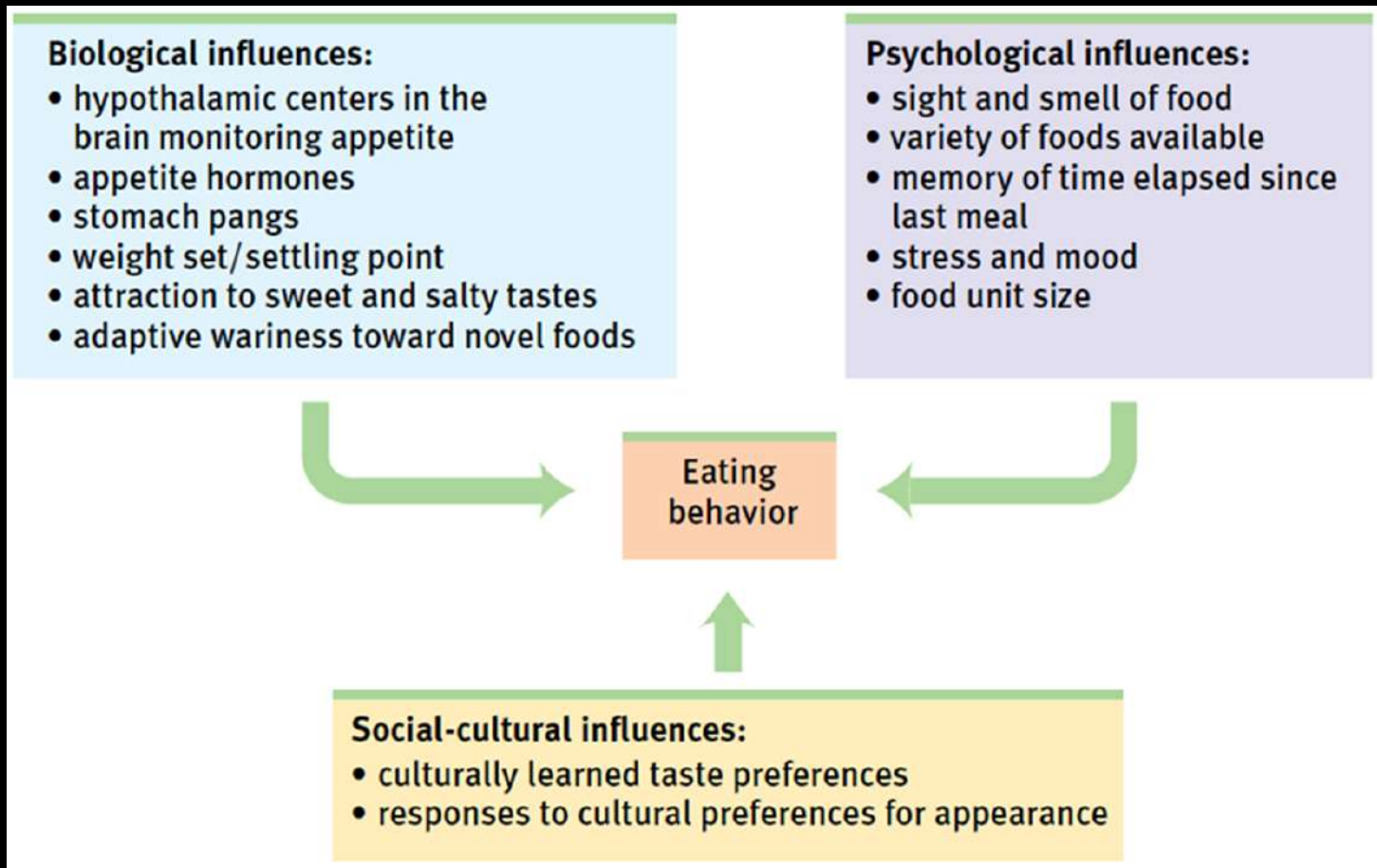


The Psychology of Hunger – Eating Disorders

- Sometimes the mind overpowers the body
- Eating Disorders
 - **Anorexia Nervosa**: an eating disorder in which a person (usually an adolescent female) diets and becomes significantly (15 percent or more) underweight, yet, still feeling fat, continues to starve.
 - **Bulimia Nervosa**: an eating disorder characterized by episodes of overeating, usually high-calorie foods, followed by vomiting, laxative use, fasting, or excessive exercise.
 - **Binge-Eating Nervosa**: significant binge-eating episodes, followed by distress, disgust, or guilt, but without the compensatory purging, fasting, or excessive exercise that marks bulimia nervosa.



Levels of Analysis for Our Hunger Motivation - Biopsychosocial

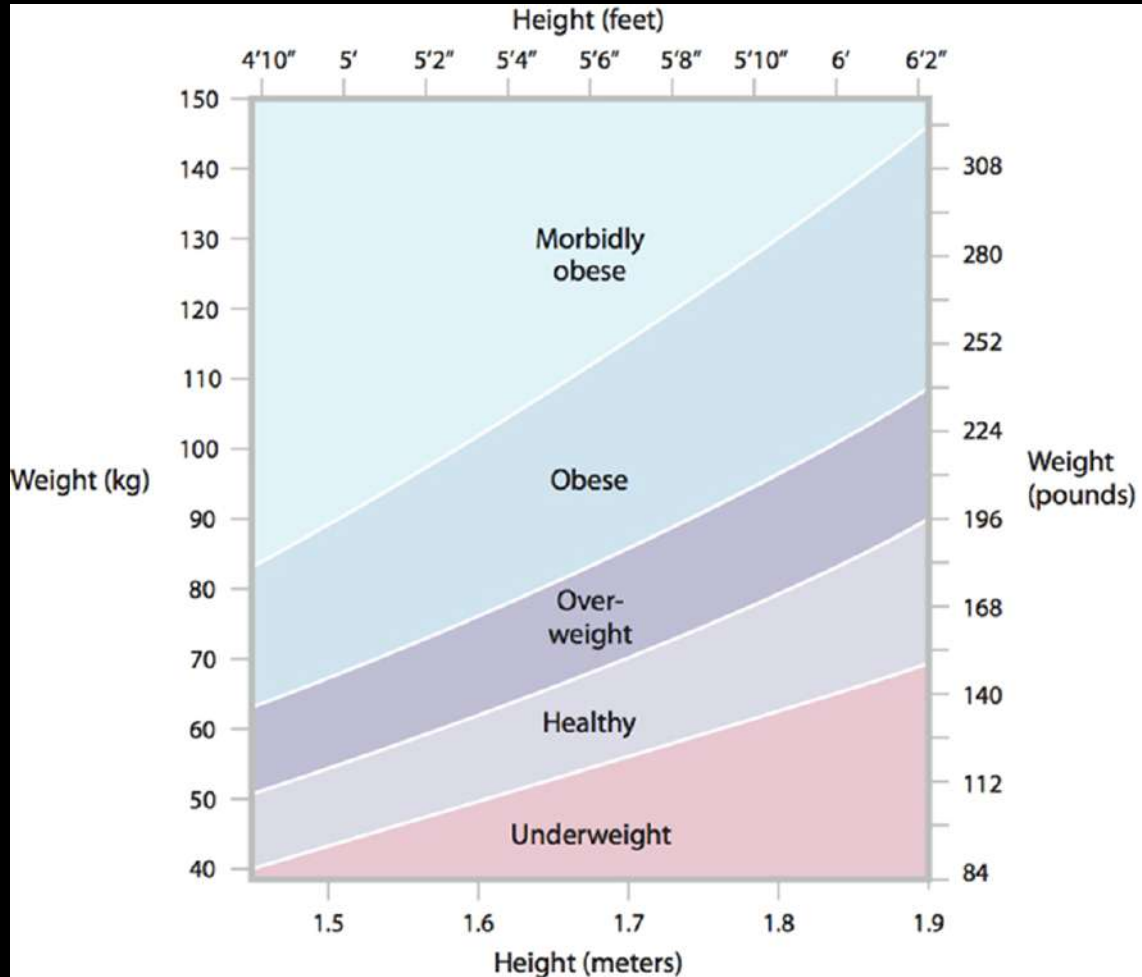


Obesity & Weight Control

- Historical Interpretations
 - Our body went through periods of food and starvation, in ancient times fat was good because you had food
- Obesity
 - A body mass index of 30 or more
 - In US adult obesity has doubled @ 34%, child obesity has quadrupled
 - Can cut up to 3 years off life compared to slim counterparts



Body Mass Index



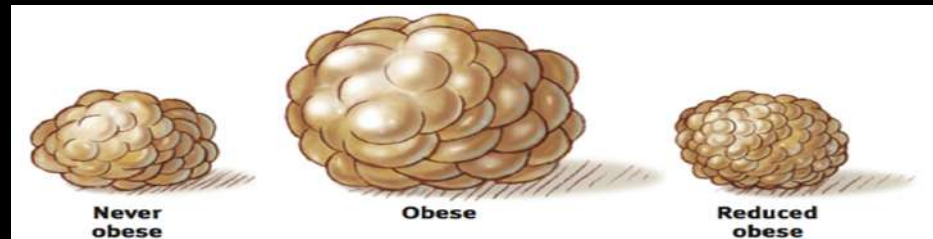
The Social Effects of Obesity

- Obesity can affect how you are treated and how you feel about yourself
- Weight discrimination



The Physiology of Obesity

- Fat Cells



- Set Point and Metabolism- the idea that starving yourself doesn't actually help you lose weight
- Genetic Factor
- Sleep loss
- Types of food and activity level

Losing Weight

- main things you need to do in order to have successful weight loss
 - begin only if you are motivated and self-disciplined
 - minimize exposure to tempting food cues
 - take steps to boost your metabolism (exercise)
 - eat healthy food
 - don't starve yourself and only eat at night
- Keeping weight off = realistic & moderate goals, life-style change, and disciplined

