

## 8:2a Hunger

Internal factors that drive hunger and motivates us to eat

- Research suggests receptors in the stomach wall signal
- hunger or satiation (fullness)
- Research conducted on animals show that when they
- are hungry they eat until stomach is full
- When food experimentally removed → eat

Problem:

Remove stomach...still feel hunger

Conclusion:

Receptor cells are a factor in hunger, but there must also be others

## 8:2b Hunger

### Blood chemistry

Research suggests that glucose, insulin and the hormone CCK all play a role in hunger/satiation

Glucose - body's main source of energy

- The uptake of glucose plays a role in satiation
- Insulin extracts glucose from blood stream
- When enough glucose extracted, hunger leaves

### The Brain

The hypothalamus consists of areas that control eating

- The lateral hypothalamus stimulates eating  
If damaged/destroyed → stop eating
- The ventromedial hypothalamus signals eating to end  
If damaged/destroyed → overeat/picky

So: stomach, blood chemistry, brain play role

## 8:2c Hunger

### External factors in hunger and eating

#### Cultural conditioning

- Time of day we eat
- Types of food we eat

#### Visual stimuli:

- Overweight people pay more attention to time

### Internal-external factors which interact

People with higher insulin responses to food tend to overeat

Insulin level in blood increases when food is seen or smelled

People may overeat in response to psychological stressors (boredom or depression)

## 8:2d Hunger

### Eating Disorders

#### Over Eating

People may overeat due to a defective or missing gene. Researchers found that mice missing the Ob gene were overweight.

#### Anorexia Nervosa

Seen mostly in adolescent and young-adult middle and upper-class females; now seeing a dramatic rise in males

People with anorexia nervosa:

- Have an unnatural fear of being overweight
- Tend to lose 20-25% of body weight
- See themselves as not being skinny enough, no matter how skinny they may be
- Tend to partake in excessive exercise programs
- Leads to bone fractures, osteoporosis, cessation of menstruation, growth of furry hair, possible loss of brain tissue and, in some cases, death

## 8:2e Hunger

### Eating Disorders (cont.)

#### Bulimia

Disorder in which the person tends to binge eat, and then purges the food via vomiting or the use of laxatives

- More common than anorexia nervosa
- Bulimics are aware that this pattern of eating is not normal and are more likely to seek treatment and are more responsive to therapy

Damage done to the person includes:

- Tooth decay/loss
- Damage to throat and stomach
- Digestive disorders