## In This Chapter

- Puberty
- Body Image Issues
- Sexuality

## Setting the Stage

- Puberty: Involves hormonal and physical changes that contribute to sexual maturity and adult height
  - Takes an average of five years
  - Today is typically an early teenage change



Fourth graders



High school juniors

## Setting the Context

- · Culture, history, and puberty rights
  - "Coming of age" events scripted to highlight entrance into adulthood
  - Menarche and spermarche
  - Cultural and gender differences

#### The Declining Age of Puberty Secular trend in puberty 1860s in Europe: Average age menarche over 17 Average age at menarche 1960s: Average age dropped to under 13 (years) 15 Today: Menarche before 13 for many Secular trend is index of nation's 1860 1880 1900 1920 1940 1960 economic development

## LEARN THE TERMS

- Puberty
- · Puberty rite
- · Secular trend in puberty
- Menarche
- Spermarche

# The Hormonal Programmers: Two Systems or Command Centers

#### Adrenal androgens: Produced by adrenal glands

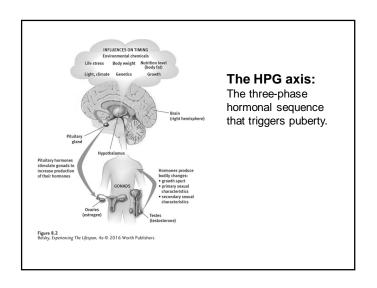
- Program aspects of puberty
  - Promote growth of hair; influence skin changes; program sexual desire.
- Androgens begin secretion in middle childhood.

## **HPG axis**: (Hypothalamus, Pituitary, Gonad)

- Main hormonal system programming puberty
- Hypothalamus triggers the pituitary to secrete its hormones, which, in turn, trigger the gonads to secrete their hormones, which produce major body changes.

## The Hormonal Programmers

- Gonads (sex organs)
  - Testes
  - Ovaries
- · Adrenal androgens (testes and estrogen)
  - Found in both sexes
  - Program sexual desire and skin and bodily hair growth



## The Physical Changes

- Primary sexual characteristics: Changes that directly involve the organs of reproduction; rate variations
  - Growth of uterus, maturation of the ovaries, onset of menarche
  - Growth of penis, testes, onset of spermarche
- Secondary sexual characteristics: Physical changes not directly involved in reproduction
  - Hair growth, voice changes, acne, breast development
- · Growth spurt
  - Dramatic increase in weight and height

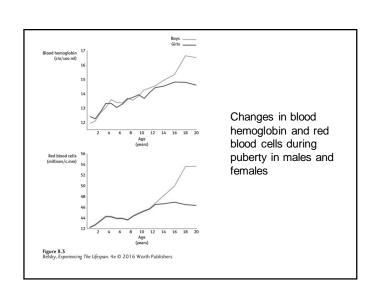
## Puberty Timetables: Gender Differences

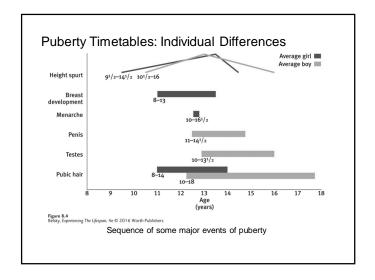
#### Girls

- Six months after growth spurt begins development of breasts and pubic hair occurs
- Menarche begins in middle to final stage
- Rate of change is variable; affected by when process starts
- Dramatic internal changes

#### Boys

- After growth of testes and penis begins, growth of body hair, height, and muscle mass
- Change in cardiovascular system, frame, larynx
- Hands, legs, and feet grow first





#### LEARN THE TERMS

- · Adrenal androgens
- HPG axis
- Gonads
- Testosterone
- · Primary sexual characteristics
- · Secondary sexual characteristics
- Growth spurt

## Overweight and Early Puberty (It's All About Girls)

- Childhood weight predicts when a girl physically matures
  - Linked to rapid weight gain during first months of life and high BMI in elementary school
- Data for boys are inconsistent



Overfeeding can have another negative epigenetic effect— priming this baby to reach puberty at an early age.

## Predicting Girls' Chances of Early Puberty

- Questions that predict a female child's chance of reaching puberty at a younger-than-average age.
  - Did this girl's parents reach puberty early?
  - Is this girl African American?
  - Is this girl overweight? Did she gain weight rapidly during her first year of life?
  - Has this girl's family life been stressful and unhappy? Did she have an insecure attachment?

## An Insider's View of Puberty

## Basic principle

- Changes are exciting and frightening
- Reactions depend on social norms and reactions of individual family members

#### · Breast development

- Western cultures = pride

#### Menstruation

- Varying responses; 1 in 3 disgusted or ambivalent

#### · Spermarche/first ejaculation

- Tendency to be secretive

## Being Early: It Cab Be a Problem for Girls

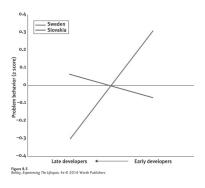
#### · Special risk of developing acting-out behaviors

- Gravitate to older friends
- Unprotected sex
- Possible bullying victims
- Possible disconnect from school (poor grades)

#### Risk of becoming anxious/depressed

- Body dissatisfaction
- Self-consciousness

The interaction between culture and pubertal timing in predicting girls' problem behavior in Sweden (red line) and Slovakia (blue line)



## Wrapping Up Puberty

- Environmental context will affect child's reaction to puberty
- With early-maturing girls, arranging the best body environment fit is important
- Especially for boys, communication about puberty can be improved

## Interventions: Minimizing Puberty Distress

#### For parents

- Make an effort to communicate about pubertal changes with same-sex child
- Help children get involved in positive activities

#### For society

- Recognize importance of school environment
- Provide earlier introduction to sex education (UNESCO global guidelines)
- Provide nurturing environment to set adolescents on right path

## Body Image Issues

#### · Harter's research

- Feelings of competence in five domains relates to overall self-esteem.
  - Scholastic competence, behavioral conduct, athletic skills, peer likeability, appearance
- For adolescents, contentment with one's appearance outweighs any other category, more for girls

# The Differing Body Concerns of Girls and Boys

#### Thin ideal

- Pressure to be abnormally thin
- Overweight and underweight female teens felt they were too fat
- Males want to build up muscles

## Body Concerns of Girls and Boys

- · Peer pressure
  - Teasing
- Dating
- Media
  - Presents unrealistic images (digitally altered)
  - Strong influence in promoting body dissatisfaction in both genders

## **Eating Disorders**

- · Anorexia nervosa
  - Characterized by self-starvation to being 85% or less of healthy body weight
    - Starvation can destroy body organs and cause death.
    - Medical emergencies require hospitalization (2/3 of ideal weight or less).
  - Menstruation ceases
  - Distorted body image

## **Eating Disorders**

- · Bulimia nervosa
  - Characterized by at least biweekly cycles of binging and purging
    - In addition to forced vomiting, purging may include taking laxatives and/or diuretics, fasting, and excess exercise.
  - Major consequences
    - Mouth sores, loss of tooth enamel (gray teeth), esophageal ulcers, esophageal cancer

## What causes these conditions?

- Strong hereditary component, especially in girls
- Temperamental tendency
  - to be anxious,
  - to have low self-efficacy,
  - to have a great need for approval,
  - and an inability to express legitimate needs.



## Is a Teenager at Risk for Serious Body Dissatisfaction? A Checklist

## Background influences: Has this child reached puberty? Is this child female?

- 1. Is this child temperamentally prone to anxiety and depression?
- 2. Does this child vigorously subscribe to the thin ideal?
- 3. Is this child becoming obsessed with dieting (or, if male, becoming obsessed with building up his muscles)?
- 4. Does this child have insecure attachments, trouble expressing her feelings, and excessively low self-efficacy and self-esteem?
- 5. When this child gets rejected or experiences a negative event, does she automatically think, "I feel fat"?

# Interventions: Improving Teenagers' Body Image

- · Target at-risk girls prone to
  - Depression and low self-worth
  - Subscribe to the "thin" ideal
- Focus on
  - Elevating self-efficacy
  - Promoting true self-esteem
  - Demanding genuine effort
  - Encouraging autonomy ("It's your choice.")
  - Dialectic behavior therapy

#### LEARN THE TERMS

- Thin ideal
- · Eating disorder
- · Anorexia nervosa
- · Bulimia nervosa
- · Binge eating disorder

## **Exploring Sexual Desire**

- First sexual feelings programmed by adrenal androgens
  - About age 10
- An interplay of nature/nurture heightens sex hormone levels
  - Nature (androgens)
  - Nurture
    - How we and others react to our body changes

With whom are teens having intercourse?

- In U.S., 70% girls and 56% boys report first sex with steady partner
- 1 in 5 teens have sex outside of a committed relationship

## With whom are teens having intercourse?

- Research with Ohio teenagers engaging in noncommitted sex
  - For girls, having noncommitted sex with a number of partners is a risk factor for depression.

#### Is there still a sexual double standard?

- Sexual double standard: Cultural code that gives men greater sexual freedom than women
  - Stereotype suggests boys mainly want sex and girls want committed relationship
  - Research shows that both boys and girls put their highest priority on intimacy

# Interventions: Toward Teenager-friendly Sex Education

- Globally sex education is slipshod
- Parents are divided about what to say to teens about sex
- Teens report about the irrelevance of high school sex education
- Romance (or relationship) class may be an effective approach!