

Life-Span Development Thirteenth Edition

Chapter 11: Physical and Cognitive Development in Adolescence

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The Nature of Adolescence

- G. Stanley Hall (1904): adolescence is a time of “storm and stress”
- Recent research has found that adolescents have a healthy self-image
- Most adolescents successfully negotiate the path from childhood to adulthood

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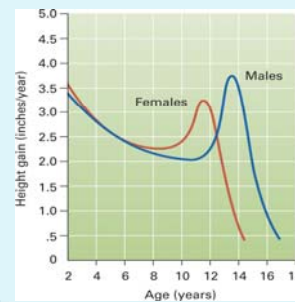
Physical Changes

- Puberty: a period of rapid physical maturation involving hormonal and bodily changes that occur primarily during early adolescence
- Sexual Maturation, Height, and Weight
 - Menarche is a girl’s first menstruation
 - Marked weight and height gains
 - Pubic hair growth
 - Facial and chest hair growth in males
 - Breast growth in females

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Physical Changes



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Physical Changes

- Puberty
 - Hormonal Changes
 - Hormones: chemicals secreted by the endocrine glands and carried throughout the body by the bloodstream
 - Increases in testosterone and estradiol

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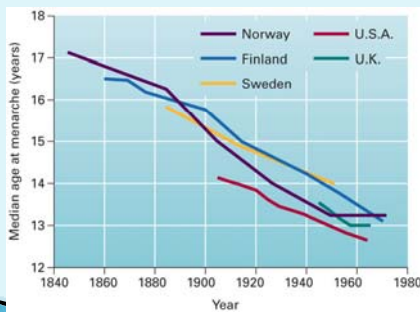
Physical Changes

- Puberty
 - Timing and Variations in Puberty
 - Average age of menarche has declined significantly since mid-19th century
 - Improved nutrition and health
 - For boys, pubertal sequence typically begins from age 10–13 ½ years. For girls it appears between 9 and 15 years
 - Precocious Puberty – the very early onset and rapid progression of puberty

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Physical Changes



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Physical Changes

- Puberty
 - Body Image
 - Preoccupation with body image is especially strong throughout adolescence
 - Girls are generally less happy with their bodies than boys and become more dissatisfied over time

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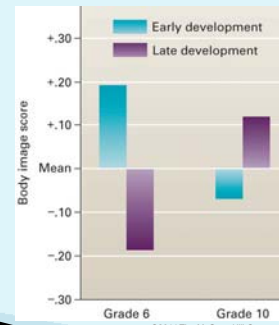
Physical Changes

- Puberty
 - Early and Late Maturation
 - Boys
 - Early-maturing boys view themselves more positively and have more successful peer relations; late maturing boys report a stronger sense of identity in their 30s
 - Girls
 - Early-maturing girls show greater satisfaction early but less satisfaction later and are more likely to smoke, drink, be depressed, have an eating disorder, struggle for earlier independence, have older friends, date earlier, and have earlier sexual experiences

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Physical Changes



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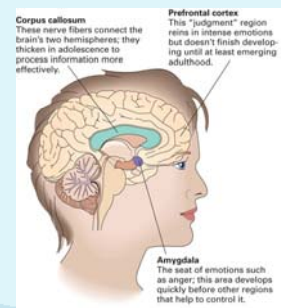
Physical Changes

- The Brain
 - Adolescents' brains undergo significant structural changes
 - Corpus callosum thickens; improves adolescents' ability to process information
 - Amygdala develops earlier than the prefrontal cortex (involved in higher-level cognitive processes)
 - Underdeveloped prefrontal cortex cannot control their passions

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The Brain



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Physical Changes

- Adolescent Sexuality
 - Atime of sexual exploration and experimentation, sexual fantasies and realities, and incorporating sexuality into one’s identity

- Adolescents who view more sexual content on television are more likely to initiate sexual intercourse earlier

Physical Changes

- Adolescent Sexuality
 - Developing a Sexual Identity Involves
 - Learning to manage sexual feelings
 - Developing new forms of intimacy
 - Learning skills to regulate sexual behavior
 - Sexual Identity Includes
 - Activities
 - Interests
 - Styles of behavior
 - Indication of sexual orientation

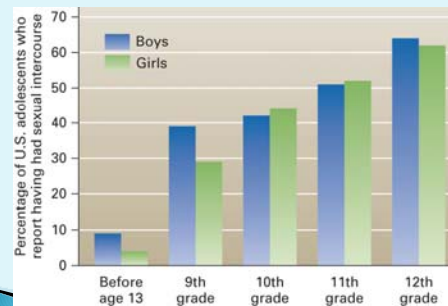
- Gay males and lesbians struggle with same-sex attractions

Physical Changes

- Adolescent Sexuality
 - The Timing of Adolescent Sexual Behaviors
 - Sexual initiation varies by country, gender, and other socioeconomic characteristics
 - 63% of U.S. 12th graders had experienced intercourse compared with 34% of 9th graders

Physical Changes

Adolescent Sexuality



Physical Changes

- Adolescent Sexuality
 - Risk Factors in Adolescent Sexual Behavior
 - Low parental monitoring is linked with early initiation of sexual activity, more sexual partners, and less condom use
 - Drug use, delinquency, and school-related problems
 - Socioeconomic Status
 - Family/Parenting
 - Peers
 - Academic Achievement

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Physical Changes

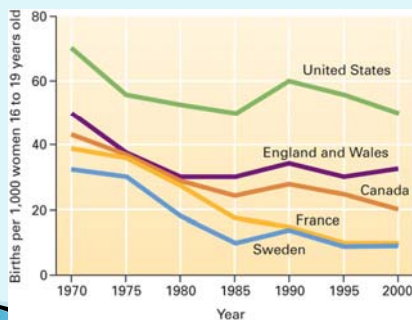
- Adolescent Sexuality
 - Contraceptive Use
 - Adolescents are increasing their use of contraceptives
 - U.S. has much lower condom use and pill use than European countries
 - Sexually transmitted infections (STIs)
 - Every year 3 million American adolescents acquire and STI

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Physical Changes

Adolescent Sexuality



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Physical Changes

- Adolescent Sexuality
 - Adolescent Pregnancy
 - Creates health risks for baby and mother
 - U.S. has 1 of the highest rates in the world
 - Low birth weight, neurological problems, childhood illness
 - Mothers drop out of school and never catch up economically

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Issues in Adolescent Health

- Adolescent Health
 - Poor health habits and early death in adulthood begin during adolescence
 - Nutrition and Exercise
 - 17% of 12–19-year-olds are overweight
 - Decreased intake of fruits and vegetables and less exercise
 - Sleep Patterns
 - Only 31% of U.S. adolescents sleep 8 or more hours a night

Issues in Adolescent Health

- Adolescent Health
 - Leading Causes of Death in Adolescence:
 - Accidents
 - Homicide
 - Suicide

Issues in Adolescent Health

- Substance Use and Abuse
 - United States has one of the highest rates of adolescent drug use of any industrialized nation
 - Adolescent alcohol and cigarette consumption has declined in recent years
 - Use of painkillers (Vicodin, Oxycontin) is increasing
 - The Roles of Development, Parents, Peers and Education

Issues in Adolescent Health

- Eating Disorders
 - Anorexia Nervosa: the relentless pursuit of thinness through starvation
 - Three Main Characteristics:
 - Weight less than 85% of what is considered normal for a person's age and height
 - An intense fear of gaining weight that does not decrease with weight loss
 - Having a distorted image of their body shape
 - 10 times more likely to occur in females than males

Issues in Adolescent Health

- Eating Disorders
 - Bulimia Nervosa: eating disorder in which the individual consistently follows a binge-and-purge pattern
 - Most bulimics:
 - Are preoccupied with food
 - Have an intense fear of becoming overweight
 - Are depressed or anxious
 - Have a distorted body image
 - Typically fall within a normal weight range

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Adolescent Cognition

- Piaget's Theory
 - Formal Operational Stage (age 11+ years):
 - More abstract than concrete operational thought
 - Increased verbal problem-solving ability
 - Increased tendency to think about thought itself
 - Thoughts of idealism and possibilities
 - More logical thought
 - Hypothetical-deductive reasoning: involves creating a hypothesis and deducing its implications

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Adolescent Cognition

- Adolescent Egocentrism:
 - Heightened self-consciousness of adolescents
 - Imaginary Audience: adolescents' belief that others are as interested in them as they themselves are
 - Personal Fable: involves a sense of uniqueness and invincibility
 - Invincibility attitudes

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Adolescent Cognition

- Information Processing
 - Executive functioning
 - Higher-order cognitive activities such as reasoning, making decisions, monitoring thinking critically, and monitoring one's cognitive process
 - Decision Making
 - Critical Thinking

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Schools

- The Transition to Middle or Junior High School:
 - Drop in school satisfaction
 - Less stressful when students have positive relationships
 - Top-Dog phenomenon – move from being oldest, biggest, and most powerful in elementary school to youngest, smallest, and least powerful in middle school

Schools

- Effective Schools for Young Adolescents:
 - Develop smaller communities that lessen impersonality of middle schools
 - Lower student-counselor ratios to 10-to-1
 - Involve parents and community leaders
 - Boost students' health and fitness with more programs
 - Integrate several disciplines in a flexible curriculum
 - Provide public health care

Schools

- High School
 - Many students graduate with inadequate reading, writing, and mathematical skills
 - High schools should discourage dropping out

Schools

- Extracurricular Activities
 - A wide array of activities can be very beneficial
- Service Learning: a form of education that promotes social responsibility and service to the community