

# Lifespan Psychology: Chapter 11

Physical and Cognitive Development in  
Adolescence

---

---

---

---

---

---

---

---

## Outline

- Definition/Theories
- Physical Changes
  - Growth spurt
  - Hormonal changes
- Cognitive Development
- Adolescent Egocentrism
- Video – Teens What Makes them Tick

---

---

---

---

---

---

---

---

## Defining Adolescence?

- **What are the central issues?**
- **Lerner's Four Traits of the Transition**
  - Relative plasticity
  - Relationism
  - Historical Embeddedness
  - Diversity and Individual Differences
- **When Does Adolescence Start?**

---

---

---

---

---

---

---

---

## Theories of Adolescence

- **G. Stanley Hall**
  - Storm and stress & The Plague of Masturbation
- **Anna Freud's Psychological Theory**
  - Restoration of delicate balance between the ego and the id
  - Renewed Oedipal conflict
- **Erik Erikson's Psychosocial Theory**
  - Identity vs. Role Confusion
- **John Hill's Biopsychosocial Theory**
  - Biological factors
  - Psychological factors
  - Social factors

---

---

---

---

---

---

---

---

## Biological changes of adolescence

- Growth occurs.
- Body composition begins to change.
- The circulatory and respiratory systems begin to change.
- The primary sex characteristics develop.
- The secondary sex characteristics develop.

8

---

---

---

---

---

---

---

---

## Growth Spurt

- Usually occurs in girls about two years before boys.
- Triggers the legs to grow, followed by the body's trunk, and ending in the shoulders and chest.
- Bones become harder and more dense.
- Muscle and fat contribute to an adolescent increase in weight.

9

---

---

---

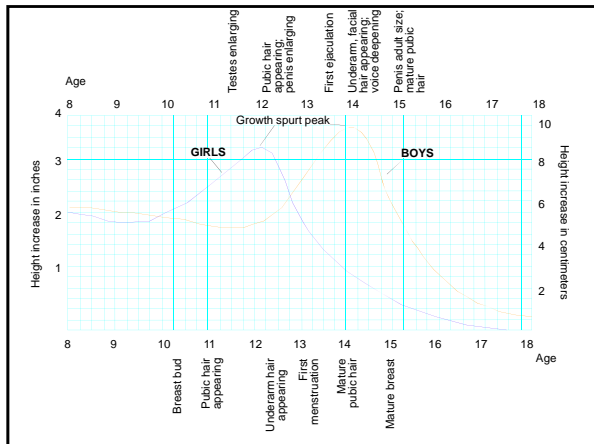
---

---

---

---

---




---

---

---

---

---

---

---

---

---

---

---

---

### Hormonal Changes

- Growth hormone.
  - Sex hormones.
    - Estrogens.
    - Androgens (testosterone).
- Sexual maturation.
  - Primary and secondary sex characteristics.
  - Secular trend.

---

---

---

---

---

---

---

---

---

---

---

---

GIRLS		BOYS	
Characteristics	Age of Occurrence	Characteristics	Age of Occurrence
Breasts grow	8-13 years	Testes and scrotal sac grow	10-13 years
Pubic hair develops	8-14 years	Pubic hair develops	10-15 years
The body grows	9 ½-14 ½ years	The body grows	10 ½-16 years
Menarche occurs	10-16 ½ years	Penis growth	11-14 ½
Underarm hair grows	Around 2 years after pubic hair	Voice changes (Larynx grows)	Around the same time as the penis
Oil/Sweat glands	Around time of underarm hair	Underarm and facial hair	Around 2 years after pubic hair
		Oil/Sweat glands	Around time of underarm hair

---

---

---

---

---

---

---

---

---

---

---

---

## Motor Development

- Characterized by steady improvement
- Gender differences
  - Girls: slow and steady
  - Boys: dramatic (speed, strength and endurance)
- Biological influence
  - Body fat increases in girls
  - Boys develop larger muscles, hearts and lung capacity

15

---

---

---

---

---

---

---

---

## Cognitive Development

- **Variables in Cognitive Development: Piaget**
  - Formal operational stage (11+ years): groups of concrete operations are combined to become formal operations
  - Concrete to abstract thinking
  - Deductive reasoning emerges
  - Argumentativeness

---

---

---

---

---

---

---

---

## Metacognition: potential problems

- Elkind's theory of adolescent egocentrism extreme self-absorption
  - imaginary audience
    - Behavior is the focus of other's concern
  - personal fable
    - Experiences are unique

17

---

---

---

---

---

---

---

---