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Section C

Puberty and Behavior
Puberty and Behavior

- What are the relationships between problem behavior, hormonal changes, and puberty?
Hormones

- Hormones influence behaviors more than does age or pubertal stage
Testosterone: A Direct Effect

- There is no association between testosterone and conduct disorders in adolescent males
- Boys who had disruptive behavior had lower testosterone
Problem Behaviors, Stress, and Hormones

Problem Behavior/Stress
Problem Behaviors, Stress, and Hormones

Problem Behavior/ Stress → Pituitary
Problem Behaviors, Stress, and Hormones

Problem Behavior/ Stress → Pituitary

↑ ACTH
↑ CTH
Problem Behaviors, Stress, and Hormones

Problem Behavior/Stress → Pituitary

Hypothalamus → Pituitary

↑ ACTH
↑ CTH

Adrenal → Cortisol

Testes → Testosterone
Testosterone

- Testosterone has a direct effect on muscle mass—it is an anabolic steroid
Higher levels of testosterone are associated with the following:

- Provoked aggression
- Lower frustration tolerance
- Increased dominance
- Increased readiness to respond

Testosterone

- Higher levels of testosterone are associated with the following:
  - Being viewed as a leader
  - Sexually attractive to females
  - Initiation of sexual behaviors
Testosterone: An Indirect Effect

- Testosterone’s indirect effect is primarily on maturation
Maturation and Behavior

- Early-maturing boys engage in more health risk behaviors

- Late-maturing boys
  - Lower achievement
  - Lower self-esteem
  - Less happiness
Testosterone and estrogen influence brain development both in infancy and at puberty

- Myelination or laying down of white matter in areas of the brain
- Pruning or allowing cells of the brain to die off so that the brain is more efficient
- Sexually differentiated neurotransmitters
Biologic factors interact with social factors to predispose an individual to antisocial behaviors.
Maturation takes place in social contexts and is influenced by them
- Family interactions
- Regulation
- Peer interactions