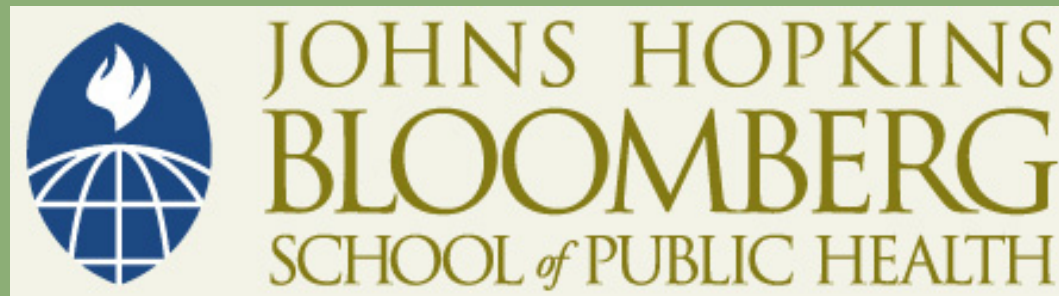


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JOHNS HOPKINS
BLOOMBERG
SCHOOL *of* PUBLIC HEALTH

Section C

Puberty and Behavior

Puberty and Behavior

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

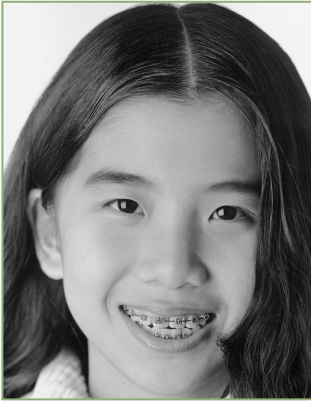
Hormones

- Hormones influence behaviors more than does age or pubertal stage

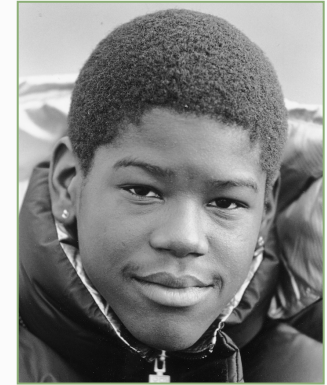
Testosterone: A Direct Effect

- There is no association between testosterone and conduct disorders in adolescent males
- Boys who had disruptive behavior had lower testosterone

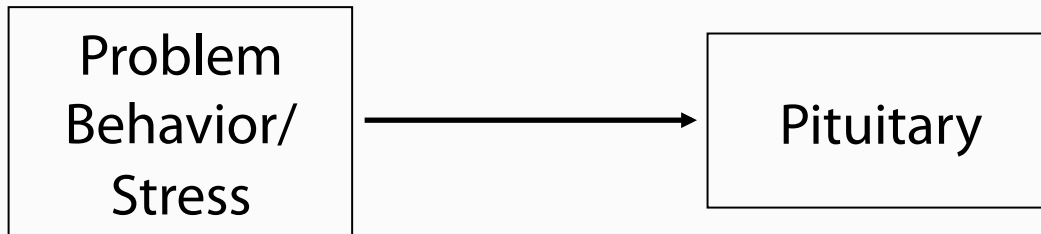
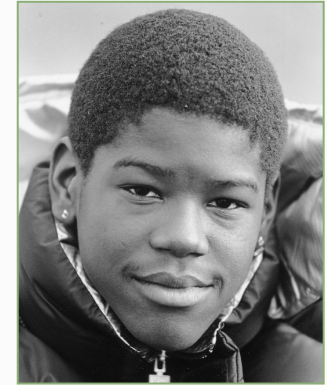
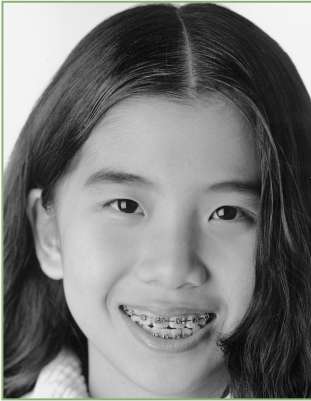
Problem Behaviors, Stress, and Hormones



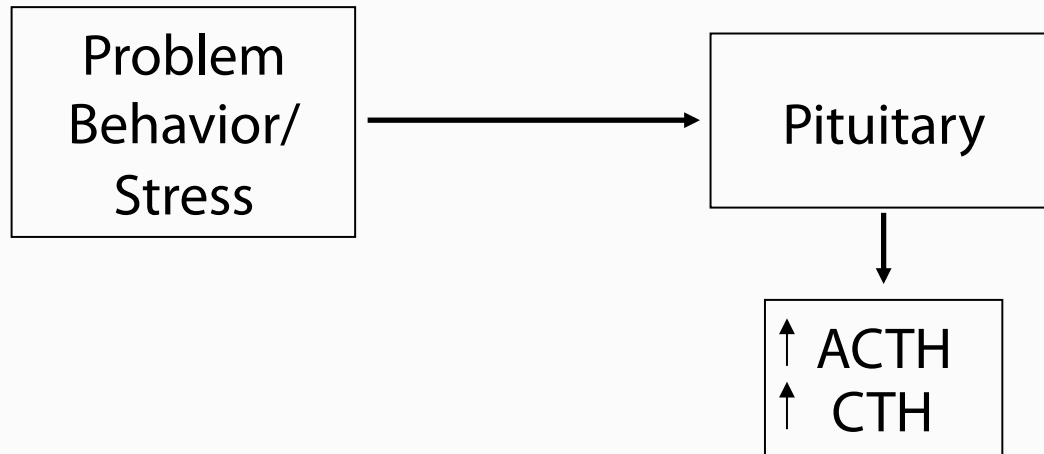
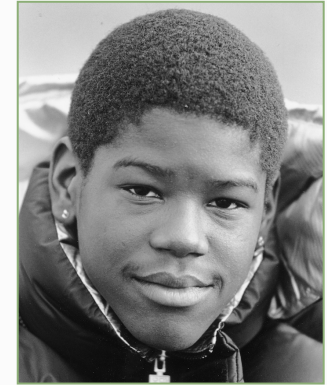
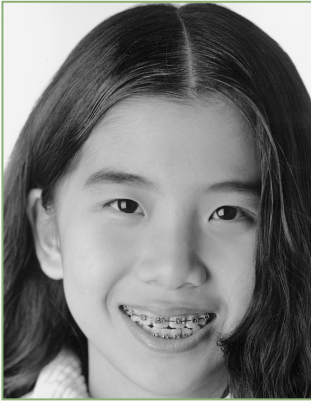
Problem
Behavior/
Stress



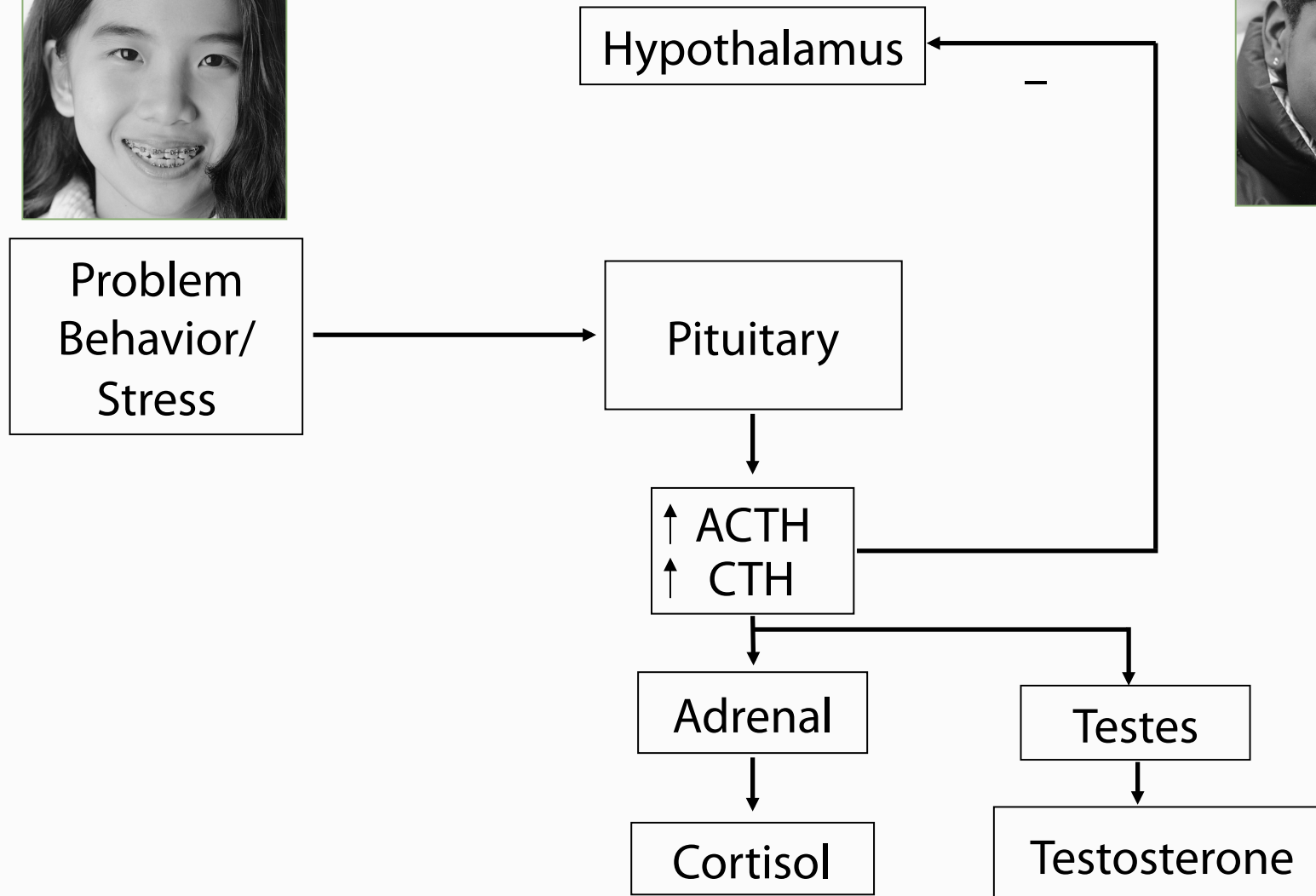
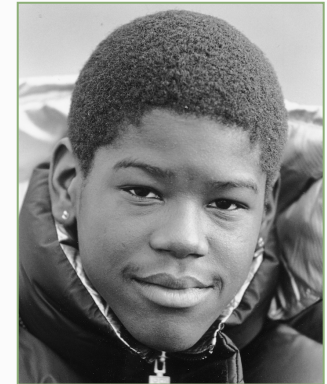
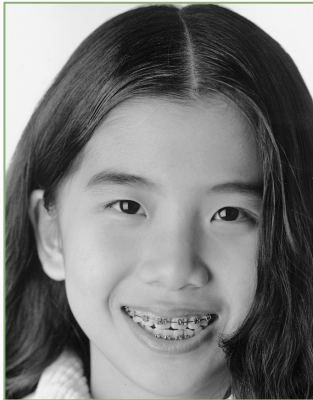
Problem Behaviors, Stress, and Hormones



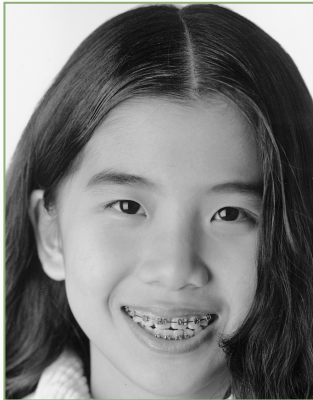
Problem Behaviors, Stress, and Hormones



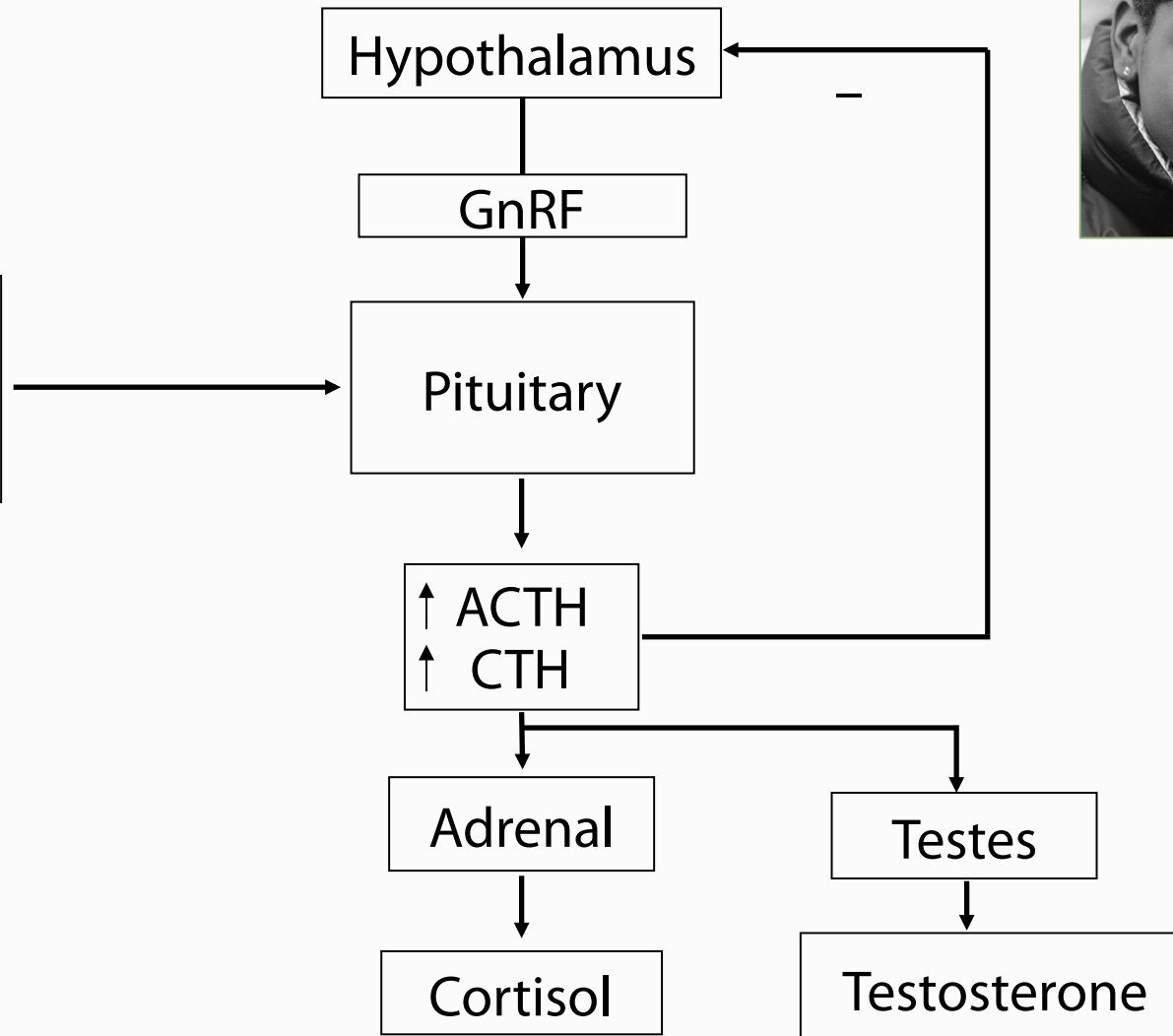
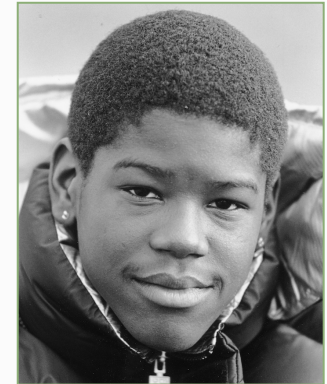
Problem Behaviors, Stress, and Hormones



Problem Behaviors, Stress, and Hormones



Problem Behavior/
Stress



Testosterone

- Testosterone has a direct effect on muscle mass—it is an anabolic steroid

Testosterone

- 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

- 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 and Social Factors

- Biologic factors interact with social factors to predispose an individual to antisocial behaviors

Maturation

- Maturation takes place in social contexts and is influenced by them
 - Family interactions
 - Regulation
 - Peer interactions