

BIOLOGICAL TRANSITIONS

Conservation

Evolutionary changes in the anatomy and physiology of organisms involve the reuse of . . . conserved core processes in new circumstances. Reuse itself implies that the core processes are constructed in such a way as to facilitate phenotypic variations.” Kirschner and Gerhart, 2005)

Genotype defines limits and possibilities; **Phenotype** reflects the expression of the genotype within a specific environment of development

Five chief Physical manifestations of Puberty

1. Rapid acceleration in growth
2. Development of primary sex characteristics, including further development of the gonads
3. The development of secondary sex characteristics.
4. Changes in body composition, specifically, in the quantity of distribution of fat and muscle
5. Changes in the circulatory and respiratory systems which leads to increased strength and tolerance for exercise..

The Impact of Puberty on the Individual's Self-Concept and Self-Esteem

“Body dissatisfaction, a measure of body image, physical attractiveness, and body mass index were assessed in the same 115 participants at ages 13, 15, and 18 years. Sex differences in body dissatisfaction emerged between 13 and 15 years of age and were maintained at 18. Over adolescence, girls increased, while boys decreased, their body dissatisfaction. Body dissatisfaction was weakly related to others' ratings of the adolescents' physical attractiveness and their body mass index. The results support the idea that, overall, adolescents' body image has little to do with how others perceive them, but once developed remains constant through much of adolescence.”

Rosenblum and Lewis, 1999

Self Esteem: “A certain average tone of self-feeling which each one of us carries about with him and which is independent of the objective reasons we may have for satisfaction and discontent.”

William James

Johnson's theory. A complex interaction of several variables including

- Psychological
- Culture and society
- Family
- History
- Reflection

Moodiness

Sleep

Stage 1 Sleep: This is experienced as falling to sleep

Stage 2 Sleep: This follows Stage 1 sleep and is the "baseline" of sleep.

Stage 3 and 4 or Delta sleep: It is called "slow wave" sleep because brain activity slows down dramatically from the "theta" rhythm of Stage 2. The "deepest" stage of sleep. **“Deep coma like sleep”**

Stage 5: REM (Rapid Eye Movement Sleep): This is a very active stage of sleep. Composes 20-25 % of a normal nights sleep. Vivid Dreams can occur. **“Probably essential for memory consolidation”**

Early versus Later Onset of Puberty