

2. Has the capacity for **logical thought** and can determine that objects have more than one property (e.g., an object can be red and metal)
3. Understands the concept of "**conservation.**" This concept involves the understanding that a **quantity of a substance remains the same** regardless of the size of the container it is in (e.g., two containers may contain the same amount of water even though one is a tall, thin tube and one is a short, wide bowl).

## II. Adolescence: 11–20 Years

### A. Early adolescence (11–14 years of age)

1. Puberty occurs in early adolescence and is marked by:
  - a. The development of primary and **secondary sex characteristics** (Table 2-1) and increased skeletal growth
  - b. **First menstruation** (menarche) in girls, which on average occurs at 11–12 years of age
  - c. **First ejaculation** in boys, which on average occurs at 13–14 years of age
  - d. **Cognitive maturation and formation of the personality**
  - e. **Sex drives**, which are expressed through **physical activity and masturbation** (daily masturbation is normal).
2. Early adolescents show strong sensitivity to the opinions of peers but are generally obedient and unlikely to seriously challenge parental authority.
3. **Alterations in expected patterns of development** (e.g., acne, obesity, late breast development) may lead to psychological problems.

### B. Middle adolescence (14–17 years of age)

1. **Characteristics**
  - a. There is great interest in **gender roles, body image, and popularity.**
  - b. **Heterosexual crushes** (love for an unattainable person such as a rock star) are common.
  - c. **Homosexual experiences** may occur. Although parents may become alarmed, such practicing is part of normal development.
  - d. Efforts to **develop an identity** by adopting current teen fashion in

Table 2-1. Tanner Stages of Sexual Development

Stage	Characteristics
1	Genitalia and associated structures are the same as in childhood; nipples, (papillae) are slightly elevated in girls
2	Scant, straight pubic hair, testes enlarge, scrotum develops texture; slight elevation of breast tissue in girls
3	Pubic hair increases over the pubis and becomes curly, penis increases in length and testes enlarge
4	Penis increases in width, glans develops, scrotal skin darkens; areola rises above the rest of the breast in girls
5	Male and female genitalia are like adult; pubic hair now is also on thighs, areola is no longer elevated above the breast in girls

clothing and music and preference for spending time with peers over family is normal, but may lead to conflict with parents.

### 2. Risk-taking behavior

- a. Readiness to challenge parental rules and feelings of **omnipotence** may result in **risk taking behavior** (e.g., failure to use condoms, driving too fast, smoking).
- b. Education with respect to **obvious short term benefits** rather than references to long term consequences of behavior are more likely to **decrease teenagers' unwanted behavior.**  
—For example, to **discourage smoking**, telling teenagers that their teeth will stay white will be more helpful than telling them that they will avoid lung cancer in 30 years.

### C. Late adolescence (17–20 years of age)

#### 1. Development

- a. Older adolescents develop **morals, ethics, self-control** and a realistic appraisal of their own abilities; they become concerned with humanitarian issues and world problems.
- b. Some adolescents, but not all, develop the ability for abstract reasoning (Piaget's **stage of formal operations**).
2. In the effort to form one's own identity, an **identity crisis** commonly develops.
  - a. If the identity crisis is not handled effectively, the adolescent may suffer from **role confusion** in which he does not know where he belongs in the world.
  - b. With role confusion, the adolescent may display behavioral abnormalities with **criminality** or an **interest in cults.**

#### D. Teenage sexuality

1. In the United States, **first sexual intercourse** occurs on average at 16 years of age; by 19 years of age, 80% of men and 70% of women have had sexual intercourse.
2. About 65% of teenagers **do not use contraceptives** for reasons which include the conviction that they will not get pregnant, lack of access to contraceptives, and lack of education about which methods are most effective.
3. Physicians may counsel minors (persons under 18 years of age) and provide them with contraceptives without parental knowledge or consent.

#### E. Teenage pregnancy

1. Teenage pregnancy is a social problem in the United States. Although the **birth rate and abortion rate** in American teenagers are **currently decreasing**, teenagers give birth to over 500,000 infants (12,000 of these infants are born to mothers under 15 years of age) and have about 400,000 abortions annually.
2. **Abortion is legal** in the United States. However, in about half of the states, minors must obtain parental consent for abortion.
3. Factors predisposing adolescent girls to pregnancy include depression, poor school achievement, and having divorced parents.