Adolescence

Defining Adolescence

- The World Health Organization (WHO) defines adolescence as the period of life between 10-19 yrs of age.
- In the United States, adolescence begins approximately between ages 12-14, and ends from 19-21.

Cultural Celebrations

- Bat or Bar Mitzvah for 12 yr old Jewish girls and 13 yr old Jewish boys
- Upanayanam for males in the Hindu world
- African boys have a coming of age ceremony which the males state a promise to never do anything to shame their families or their village.
- Sweet sixteen- U.S.
- Quinceanera- Latin culture

Adolescence

Many psychologists once believed that our traits were set during childhood. Today psychologists believe that development is a lifelong process.

Puberty

Adolescence begins with puberty (sexual maturation). Puberty occurs earlier in females (11 years) than males (13 years). Thus height in females increases before males.

Physical Development

![Graph showing height growth during puberty.](image)
Primary Sexual Characteristics
During puberty primary sexual characteristics — the reproductive organs and external genitalia — develop rapidly.

Secondary Sexual Characteristics
Also secondary sexual characteristics — the nonreproductive traits such as breasts and hips in girls and facial hair and deepening of voice in boys develop. Pubic hair and armpit hair grow in both sexes.

Getting Inside the Adolescent Brain
Selective pruning of unused neurons and connections “You lose what you don’t use”

Frontal Cortex
During adolescence, neurons in the frontal cortex grow myelin, which speeds up nerve conduction. The frontal cortex lags behind the limbic system’s development. Hormonal surges and the limbic system may explain occasional teen impulsiveness.

Cognitive Development
Adolescents’ ability to reason gives them a new level of social awareness. In particular, they may think about the following:
1. Their own thinking.
2. What others are thinking.
3. What others are thinking about them.
4. How ideals can be reached. They criticize society, parents, and even themselves.

Self-Esteem
• When females reach adolescence, they are about twice as likely to be depressed when compared to their male counterparts.
• Body image issues (for the girls and guys)
Developing Reasoning Power

According to Piaget, adolescents can handle abstract problems (i.e., they can perform formal operations). Adolescents can judge good from evil, truth and justice, and think about religion/spirituality in deeper terms.

Moral Development


Preconventional Morality: Before age 9, children show morality to avoid punishment or gain reward.

Conventional Morality: By early adolescence, social rules and laws are upheld for their own sake.

Postconventional Morality: Affirms people’s agreed-upon rights or follows personally perceived ethical principles.

“Is it okay to steal medicine to save a life?”

Moral Feeling

Moral feeling is more than moral thinking. When posed with simulated moral dilemmas, the brain’s emotional areas only light up when the nature of the dilemmas is emotion-driven.

Moral Action

Moral action involves doing the right thing. People who engage in doing the right thing develop empathy for others and the self-discipline to resist their own impulses.

Social Development

Peer groups

Erikson’s Identity VS Role Confusion

Parent and Peer Influence

Although teens become independent of their parents as they grow older, they nevertheless relate to their parents on a number of things, including religiosity and career choices. Peer approval and relationships are also very important.

Identity

• Independence from parents
• Figuring out “who we are”
• May be exploring sexual orientation, religious beliefs, etc.
Emerging Adulthood
Emerging adulthood spans ages 18-25. During this time, young adults may live with their parents and attend college or work.

Adulthood
- Independence
- Social Clock: The cultural prescription of "the right time" to leave home, get a job, marry, have children, and retire

Sometimes we mock the predictability of our social clock...

Love & Marriage
- Average age
- Reasons for later marriage
- Cohabitating

Adulthood
Although adulthood begins sometime after a person’s mid-twenties, defining adulthood into stages is more difficult than defining stages during childhood or adolescence.

Adulthood’s Commitments
Love and work are defining themes in adult life. Evolutionary psychologists believe that commitment has survival value. Parents that stay together are likely to leave a viable future generation.
Adulthood’s Commitments

Happiness stems from working in a job that fits your interests and provides you with a sense of competence and accomplishment.

Middle Adulthood

Muscular strength, reaction time, sensory abilities and cardiac output begin to decline after the mid-twenties. Around age 50, women go through menopause, and men experience decreased levels of hormones and fertility.

Willie Mays batting performance.

Adulthood’s Ages and Stages

Psychologists doubt that adults pass through an orderly sequence of age-bound stages. Mid-life crises at 40 are less likely to occur than crises triggered by major events (divorce, new marriage).

Neuroticism scores, 10,000 subjects (McCrae & Costa, 1996).

Physical Development

The peak of physical performance occurs around 20 years of age, after which it declines imperceptibly for most of us.

Benefits of healthy lifestyle become apparent during adulthood (as well as unhealthy lifestyles).

Old Age: Sensory Abilities

After age 70, hearing, distance perception, and the sense of smell and taste diminish, as do muscle strength, reaction time, and stamina. After 80, neural processes slow down, especially for complex tasks.

Old Age: Motor Abilities

At age 70, our motor abilities also decline. A 70-year-old is no match for a 20-year-old individual. Fatal accidents also increase around this age.
Old Age Disorders

Dementia

*Cognitions
*Impairment

Alzheimer’s Disease

Individuals who are in the early stages of this disease show more MRI activity in the brain than do normal individuals of the same age. Alzheimer’s is linked with plaques and tangles in the brain.

Alzheimer’s Disease

Risk of developing Alzheimer’s increases as we age

The Nun studies
(1986, 1990)

Aging and Memory

As we age, we remember some things well. These include recent past events and events that happened a decade or two back. However, recalling names becomes increasingly difficult.

Aging and Memory

Recognition memory does not decline with age, and material that is meaningful is recalled better than meaningless material.
Aging and Memory

- **Crystallized**: One’s accumulated knowledge as reflected in vocabulary and analogies tests (increases for elderly)
- **Fluid**: One’s ability to reason speedily and abstractly (decreases for elderly)

Well-Being Across the Life Span

Well-being and people’s feelings of satisfaction are stable across the life span.

Successful Aging

- **Biological influences**: genetic, physical, psychological, social, cultural
- **Psychological influences**: cognitive, emotional, social, spiritual
- **Social-cultural influences**: cultural, societal, environmental

Developmental Issues

**Continuity and Stages**

Researchers who view development as a slow, continuous process are generally those who emphasize experience and learning. Biologists, on the other hand, view maturation and development as a series of genetically predisposed steps or stages. These include psychologists like Piaget, Kohlberg and Erikson.

**Stability and Change**

Lifelong development requires both stability and change. Personality gradually stabilizes as people age. However, this does not mean that our traits do not change over a lifetime. Some temperaments are more stable than others.
Old Age: Life Expectancy
Life expectancy at birth increased from 49% in 1950 to 67% in 2004 and to 80% in developed countries. Women outlive men and outnumber them at most ages.

Death and Dying
People who reach a sense of integrity in life (in Erikson’s terms) see life as meaningful and worthwhile.

Grief
• There is no “normal” reaction or series of grief stages after the death of a loved one. Grief is more sudden if death occurs unexpectedly.
5 Stages Theory (Kubler-Ross, 1969)
*Denial
*Anger
*Bargaining
*Depression
*Acceptance

Let’s not end on a sad note...
Quiz Time!
(Not graded, but several relevant questions may help you study)

1. There are approximately ___ sperm deposited during intercourse.
   - A) 200,000.
   - B) 2 million.
   - C) 20 million.
   - D) 200 million.

2. The prenatal stage of development has three phases, in the order of:
   - A) embryo, fetus, zygote.
   - B) zygote, fetus, embryo.
   - C) fertile, fetal, birth.
   - D) zygote, embryo, fetus.
3. **Teratogens are:**
- A) recessive genes that result in birth defects.
- B) microorganisms that can cause mutations in normal development.
- C) toxic agents which can cause defects in an embryo or fetus.
- D) alleles that react negatively to the environment.

4. The leading cause of mental retardation is now:
- A) genetic abnormalities.
- B) malnutrition.
- C) Down Syndrome.
- D) fetal alcohol syndrome.

5. You have a pregnant friend who is having a glass of wine with dinner. She tells you that she is only having one glass. You tell her:
- A) to be sure to limit it to one glass.
- B) beer would be safer.
- C) there is no safe level of alcohol when someone is pregnant.
- D) as long as it is with food, it shouldn’t be a problem.

6. Touching a newborn’s cheek can trigger the ___ reflex, turning its head toward the source of touch and opening its mouth.
- A) sucking.
- B) rooting.
- C) grasping.
- D) nuzzling.

7. Newborns prefer to look at:
- A) a bull’s eye pattern.
- B) a human face.
- C) a circle.
- D) a shiny object.

8. As infants gain familiarity with repeated exposure to a visual stimulus, their interest wanes and they look away sooner. This is called:
- A) habituation.
- B) visual boredom.
- C) visual exhaustion.
- D) object permanence.
9. Psychologists who study physical, social and cognitive changes throughout the human life cycle are:

- A) child psychologists.
- B) developmental psychologists.
- C) clinical psychologists.
- D) cognitive-behavioral psychologists.

10. Timmy’s father covered up a toy with a towel. At age 4 months, Timmy did not look for it, but at 5 months, Timmy lifted the towel to get the toy. Timmy has developed:

- A) egocentrism.
- B) object permanence.
- C) accommodation.
- D) conservation.

11. Changes in height, weight, body hair, voice changes and in girls, breast development which happen in adolescence are known as:

- A) menarche.
- B) puberty.
- C) secondary sex characteristics.
- D) primary sex characteristics.

12. An adolescent’s occasional impulsive and immature behavior is at least partly a reflection of the last brain area to mature, the:

- A) frontal cortex.
- B) temporal lobes.
- C) sensory strip.
- D) parietal lobes.

13. According to Kohlberg’s theory of moral development, following the “letter of the law” is:

- A) called conventional morality.
- B) called postconventional morality.
- C) the highest level of morality.
- D) difficult for adolescents.

14. According to Erik Erikson’s Psychosocial Stages of Development, adolescence must deal with the psychosocial conflict of:

- A) intimacy vs. isolation.
- B) identity vs. role confusion.
- C) industry vs. inferiority.
- D) initiative vs. guilt.
15. Three areas of character education stressed for adolescents are:
- A) responsible thinking, compassion, delayed gratification.
- B) empathy, delayed gratification, service learning.
- C) following rules, keeping quiet, helping others.
- D) social harmony, communication, cleanliness.

16. Women’s foremost sign of biological aging is ___, which occurs around the age of ___.
- A) amenorrhea; 40
- B) menarche; 45
- C) puberty; 20
- D) menopause; 50

17. During middle adulthood, the primary psychosocial task is to:
- A) experiment with different roles.
- B) review his or her life to find meaningfulness.
- C) establish lasting and meaningful relationships.
- D) contribute to future generations.

18. Which of the following is true:
- A) Life satisfaction peaks at age 50 and then declines after 65.
- B) Most people over 90 are senile.
- C) Most women feel relief after going through menopause.
- D) older people become more susceptible to short-term illnesses.

19. Underlying Alzheimer’s disease is loss of brain cells and deterioration of neurons that produce:
- A) endorphins
- B) acetylcholine
- C) serotonin
- D) dopamine

20. On which of the following tasks are 60-year-old adults most likely to outperform 20-year-old adults?
- A) analogies.
- B) solving an abstract geometry problem.
- C) recalling previously presented nonsense syllables.
- D) answering questions quickly.
21. The culturally defined preferred time for major life events, such as marriage, parenthood and retirement is known as:

- A) the life cycle.
- B) cultural dictates.
- C) the social clock.
- D) cultural dogma.

22. The difference between a 12-month-old child and most 18-month-old children when you put rouge on one cheek and place them in front of a mirror is:

- A) there is no difference.
- B) the 12 month old will think it is cute.
- C) the 18 month old will be less upset.
- D) the 18 month old will try to wipe it off.

23. Many couples cohabitate before marriage, believing this will ensure success when they marry. Statistics show:

- A) they remain married longer.
- B) they have less chance of being divorced.
- C) this makes no difference.
- D) they are at higher risk of divorce.

24. When children leave home, it creates a situation called, “the empty nest,” which effects most parents by:

- A) increasing the risk of depression.
- B) increasing the risk of divorce.
- C) increasing the level of life satisfaction.
- D) increasing work involvement.

25. Jamie does not steal a candy bar from the store because he is afraid his mother will spank him if he is caught. Jamie best represents a(n) _____ morality.

- A) preoperational
- B) preconventional
- C) conventional
- D) postconventional

Answers

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>D</td>
<td>9</td>
<td>B</td>
<td>17</td>
</tr>
<tr>
<td>2</td>
<td>D</td>
<td>10</td>
<td>B</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>11</td>
<td>C</td>
<td>19</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>12</td>
<td>A</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>C</td>
<td>13</td>
<td>A</td>
<td>21</td>
</tr>
<tr>
<td>6</td>
<td>B</td>
<td>14</td>
<td>B</td>
<td>22</td>
</tr>
<tr>
<td>7</td>
<td>B</td>
<td>15</td>
<td>B</td>
<td>23</td>
</tr>
<tr>
<td>8</td>
<td>A</td>
<td>16</td>
<td>D</td>
<td>24</td>
</tr>
</tbody>
</table>

25. B