

Adulthood

The Developing Person

(Chapter 4-p.153-167)

Adulthood spans the years of roughly 20- death. The journey from adolescence to death is marked by stages that serve as developmental milestones. The three main stages of development are: Young Adulthood, Middle Adulthood, and Older Adulthood.



A) Physical Changes

- a. Our physical abilities- muscular strength, reaction time, sensory keenness, and cardiac output- all crest by the mid-twenties. Women, because they mature earlier than men, also peak earlier.
- b. Obvious aging takes place- wrinkles, etc...In Eastern cultures, aging is welcome but in Western cultures, millions spend billions in hopes of slowing the aging process. (But nature will not be denied ☺)
- c. Women hit menopause- the ending of the menstrual cycle- around age 50
- d. Men do not have a 'menopause' period. Instead, they experience a more gradual decline in sperm count, testosterone levels, and sexual abilities.

Physical Changes in Later Life QUIZ:

Answer True or False to each of the following statements:

- By the year 2050, 1 in 10 people worldwide will be 65 or older
- Older people are more susceptible to short term illnesses
- About ¼ of people over age 65 live in nursing homes, hospitals, or other institutions
- During old age many of the brain's neurons die
- If they live to be 90 or older, most elderly people eventually become senile.
- Recognition memory- the ability to identify things previously experienced- declines with age
- Life satisfaction peaks in the 50's and then gradually declines after age 65

**** All of the above statements are false.**

But there is a 'concern' about getting older and the 'fear' of getting older often misleads actual facts.

Actual Facts:

- There will only be 1 in 5 people age 65 or older in 2050
- World wide life expectancy is now at 67 years (75 in developed countries)
- 126 male embryos being life for every 100 females
- by birth, the sex ratio is down to 105 males for every 100 females
- women outlive men in Canada by 7 years
- By age 100, females outnumber males 5 to 1.
- Few of us live to be 100 years old
- Japan has the longest life expectancy- 80 years old
- Sierra Leone has the shortest life expectancy- 38 years old
- The oldest person in the world died in 1997. She was 122 years old.



Jeanne Calment

122 years old

Born in France

Born 1885

Died 1997

At age 100 she was still riding a bike.

Other Physical Changes:

- **Sensory Abilities**- eye sight/visual sharpness
- **Health**- immune system weakens- but older people have a lifetime's accumulation of antibodies so they are less likely to get the common flu and cold viruses.
- **Dementia & Alzheimer's Disease** – occur because of a substantial loss of brain cells. Dementia can be caused by small strokes, a brain tumor, or alcoholism. Alzheimer's is a progressive and irreversible brain disorder characterized by gradual deterioration of memory, reasoning, language and physical functioning.

FACT: 3% of the world's population will get Alzheimer's Disease by the age of 75.

C) Social Changes in Adulthood:

Many of the differences between younger and older adults are created not by the physical and cognitive changes that accompany aging but by life events associated with family relationships and work.

1) Adulthood's Ages & Stages:

Young Adulthood: marriage, families, careers, etc

Mid-Adulthood: 'mid-life crisis' ...the popular image of the midlife crisis is a man who forsakes his family for a younger girlfriend and a hot sports car. But the fact is that unhappiness, job dissatisfaction, marital dissatisfaction, divorce, anxiety, and suicide do NOT surge during the early 40's as most would think. Actually, most divorces occur in the 20's and suicide is highest in the 70's and 80's.

- **Social Clock:** the culturally preferred timing of social events such as marriage, parenthood and retirement.

2) Adulthood's Commitments:

Two basic aspects of our lives dominate adulthood:

- 1) intimacy (forming close relationships)
- 2) generativity (being productive and supporting future generations)

Sigmund Freud said: "The healthy adult is one who can love and work."

LOVE: _____

WORK: _____

3) Well Being Across the Life Span:

"To live is to grow older."

That means we can all look back with satisfaction or regret, and forward with hope or dread. When people are asked what they would have done differently if they could relive their lives, their most common answer is "taken my education more seriously and worked harder at it." – regrets

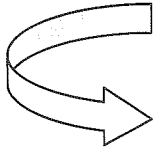
4) Death & Dying:

Most of us will suffer and cope with the deaths of relatives and friends. Grieving and loss also affects older adults, especially when a spouse dies. Acceptance of death near the end of life is usually accompanied with a sense of integrity- a feeling that one's life has been meaningful and worthwhile. (Erikson)

B) Cognitive Changes in Adulthood:

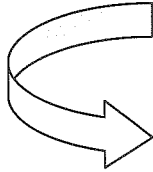


- **Aging & Memory:** As we age, we remember some things well. Looking back in later life, people most vividly recall not only recent happenings, but also their experiences in life's second two decades.
- Prospective Memory- 'remember to pick up milk' remains strong in older adulthood when events help trigger memory

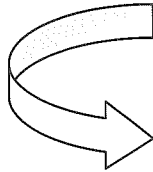


- **Aging & Intelligence:** What happens to our broader intellectual powers as we age? Three main phases:

PHASE I: Cross-Sectional Evidence for Intellectual Decline
* the decline of mental ability with age is part of the general aging process



PHASE II: Longitudinal Evidence for Intellectual Stability
* the idea of retesting people over periods of years to test intelligence levels



PHASE III: It all Depends...
* it's controversial because testing certain people over time does not conclude that all people will be the same in intellectual capacities over time.

Cognitive Development Terms:

- **Crystallized Intelligence:** one's accumulated knowledge and verbal skills (tends to increase with age)
- **Fluid Intelligence:** one's ability to reason speedily and abstractly (tends to decrease during late adulthood)

** These cognitive changes help explain why mathematicians and scientists produce much of their most creative work during their late twenties or early thirties, whereas those in literature, history, and philosophy tend to produce their best work in their forties, fifties and beyond, after accumulating more knowledge.

G. Physical Changes: Aging



Definition

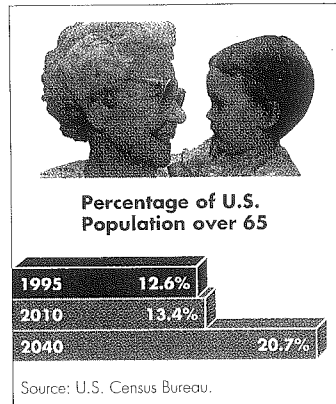
Why do we grow old?

As you look at the photo at right, the difference you see between grandmother and granddaughter is an example of normal aging, which

is very different from pathological aging.

Normal aging is a gradual and natural slowing of our physical and psychological processes from middle through late adulthood.

Pathological aging may be caused by genetic defects, physiological problems, or diseases, all of which accelerate the aging process.



One goal of the study of aging, which is called *gerontology*, is to separate the causes of normal aging from those of pathological aging. The study of aging will grow in importance, because the percentage of people in the United States over 65 is expected to almost double by the year 2040 (left graph). Life expectancy in the United States was only 45 years in 1945, but it is currently 75.5 years and rising. In the 1920s, there were only 3,700 people over 100, but currently there are about 61,000 over that age (Cowley, 1997).

We'll examine two related questions about aging: Why do our bodies age? How do our bodies change with age?

Reasons for Aging

How long you will live and how fast your body will age depends about 50% on heredity (genes) and 50% on other factors (diet, exercise, lifestyle, diseases) (Finch & Tanzi, 1997). Researchers have two general theories to explain the aging process: aging by chance and aging by design.

AGING BY CHANCE

The *aging by chance theory* says that our bodies age because of naturally occurring problems or breakdowns in the body's cells, which become less able to repair themselves.

These cellular changes, which occur as a result of normal wear and tear, may include a buildup of waste products that interferes with the cell's functioning; a breakdown in the immune system, which destroys the body's defenses against toxic agents; or an increased number of errors in the genetic mechanism (DNA code), which interferes with cell structure and function (Wallace, 1997).

AGING BY DESIGN

The *aging by design theory* says that our bodies age because there are preset biological clocks that determine the number of times cells can divide and multiply; after that limit is reached, cells begin to die and aging occurs.

Researchers believe that the biological clocks may involve the nervous and immune systems and could serve as coordinators and regulators for aging (Wallace, 1997).

Evidence suggests that our bodies age from a combination of biological clocks, wear and tear, as well as environmental factors such as diet, exercise, and lifestyle (Finch & Tanzi, 1997). As we age, our bodies undergo many changes.

Early Adulthood

The finding that most athletes peak in their 20s indicates that this is a period of maximum physical ability and capacity. For example, tennis champions reach their peak at about 25 years, baseball players are best at about 27, Olympic runners at about 25, and Olympic swimmers at about 20 (Schulz & Curnow, 1988). In our early to middle 20s, our immune system, senses, physiological responses, and mental skills are most efficient.



Middle Adulthood

In our 30s and 40s, we usually gain weight, primarily because we are less active. By the late 40s, there is a slight decrease in a number of physiological responses, including heart rate, lung capacity, muscle strength, kidney function, and eyesight.

Late Adulthood

In our 50s and 60s, we may experience a gradual decline in height because of loss of bone, a further decrease in output of lungs and kidneys, an increase in skin wrinkles, and a deterioration in joints. Sensory organs become less sensitive, resulting in less acute vision, hearing, and taste. The heart, which is a muscle, becomes less effective at pumping blood, which may result in as much as a 35% decrease in blood flow through the coronary arteries. A general decrease occurs in both the number and diameter of muscle fibers, which may explain some of the slowing in motor functions that usually accompanies old age.

Very Late Adulthood

In our 70s and 80s, we undergo further decreases in muscle strength, bone density, speed of nerve conduction, and output of lungs, heart, and kidneys. More than 10% have Parkinson's or Alzheimer's disease. In 1997, the oldest living person in the world was a 117-year-old Canadian woman. At current rates, life expectancy is projected to reach 100 in the next century.

As many of the body's physical responses slow down with aging, there are corresponding decreases in related behaviors, one of which is sexual behavior.