

# Preschool Milestones (3–5 Years).

## Growth Patterns

- **Weight:** Six times birth weight by **5 years**.
- **Height:**
  - **4th year:** 7 cm increase.
  - **5th year:** 6 cm increase.
  - Doubles birth height by **4-4.5 years**, then ~5 cm/year until puberty.
- **Chest Circumference:** By **5 years**, ~5 cm larger than head circumference.
- **Mid Upper Arm Circumference (MUAC): 1-5 years:** 16-17 cm.

## Developmental Patterns

- **Gross Motor:**
  - **3 years:** Runs easily, climbs stairs alternating feet, pedals tricycle.
  - **4 years:** Hops on one foot, catches ball, skips.
  - **5 years:** Jumps rope, balances on one foot for 10 seconds, rides bicycle with training wheels.
- **Fine Motor:**
  - **3 years:** Draws circle, builds 6–8 block towers, uses utensils.
  - **4 years:** Draws person with 3–4 body parts, cuts with scissors, copies shapes.
  - **5 years:** Draws person with 6+ body parts, writes letters, ties shoelaces.
- **Vocalization:**
  - **3 years:** 3–4 word sentences, asks "why" questions, knows basic colors.
  - **4 years:** 5–6 word sentences, tells stories, understands opposites.
  - **5 years:** Full sentences, uses future tense, knows name and address.
- **Socialization:**
  - **3 years:** Parallel play, shows affection, understands turn-taking.
  - **4 years:** Cooperative play, follows simple rules, expresses empathy.
  - **5 years:** Pretend games, understands sharing, shows independence.
- **Sensory:**
  - **3 years:** Recognizes familiar sounds, enjoys sensory play (sand, water).
  - **4 years:** Identifies objects by touch, enjoys music/movement.
  - **5 years:** Recognizes patterns, enjoys puzzles/matching games.

## Features of Preschool Period (3-5 years)

- Slower growth.
- More mature intelligence.
- Imitating adult behavior.
- Achieves some independence.
- Gross motor skills well-defined.
- Fine motor skills developing.
- "Why" is a favorite word.

## Nutritional Pattern

- Encourage self-feeding with finger foods.
- Provide balanced diet, variety of food.
- Ensure adequate iron, calcium, vitamin D.
- Provide green leafy vegetables, fruits, dairy.
- Colorful, appealing food presentation.
- Avoid excess sugar & salt (limit processed foods).
- Encourage healthy habits, table manners.

## Safety Considerations

1. **Falls & injuries:** Supervise climbing, jumping.
2. **Poisoning risks:** Keep meds/chemicals out of reach.
3. **Traffic safety:** Teach road safety, supervise outdoor play.
4. **Water safety:** Constant supervision near water.

## Parental Education

1. **Encouraging independence:** Teach self-care (dressing, feeding).
2. **Promoting play:** Provide imaginative/cooperative play opportunities.
3. **Recognizing delays:** Educate on monitoring milestones, seeking early intervention.

## Nursing Interventions

1. **Growth Monitoring:** Track weight, height, BMI.
2. **Developmental Screening:** Use standardized tools.
3. **Family Support:** Guidance on preschool care, early intervention.

## Growth and Development Red Flags (Preschool)

- **Gross Motor:** Cannot walk steadily/climb stairs by **3 years**, cannot hop/catch ball by **4 years**, cannot balance/jump by **5 years**.
- **Fine Motor:** Cannot draw simple shapes/use utensils by **3 years**, cannot use scissors/copy shapes by **4 years**, cannot write letters/tie shoelaces by **5 years**.
- **Vocalization:** Speech not understandable by strangers by **3 years**, cannot form sentences/understand simple concepts by **4 years**, cannot communicate effectively/answer questions by **5 years**.
- **Socialization:** No interest in playing/interacting with peers by **3 years**, cannot follow rules/engage in group activities by **4 years**, no pretend play/social interaction by **5 years**.
- **Sensory:** No response to familiar sounds/sensory stimuli by **3 years**, cannot identify objects/respond to sensory cues by **4 years**, no interest in puzzles/patterns by **5 years**.



# School-Age Children Developmental Milestones (6–12 Years)

## Growth Patterns

- **Weight:**
  - Seven times birth weight by **7 years**.
  - Ten times birth weight by **10 years**.
- **Height:** ~5 cm increase per year until puberty.
- **Mid Upper Arm Circumference (MUAC):** At **12 years**, 17-18 cm.

## Eruption of Permanent Teeth

- Molar: **6-7 years**
- Central and lateral incisors: **6-8 years**
- Canines and premolars: **9-12 years**
- Second molars: **12 years**
- Third molars: **18 years or later**

## Developmental Patterns

- **Gross Motor:**
  - **6–8 years:** Runs, jumps rope, rides bike, plays organized sports.
  - **9–12 years:** Refines motor skills, excels in sports, dances.
- **Fine Motor:**
  - **6–8 years:** Writes legibly, draws detailed pictures, ties shoelaces.
  - **9–12 years:** Uses tools effectively, creates complex crafts/models.
- **Vocalization:**
  - **6–8 years:** Speaks in full sentences, understands jokes, follows multi-step instructions.
  - **9–12 years:** Communicates effectively, uses advanced vocabulary, engages in meaningful conversations.
- **Socialization:**
  - **6–8 years:** Forms friendships, understands rules, participates in group activities.
  - **9–12 years:** Develops empathy, resolves conflicts, shows independence in social settings.
- **Sensory:**
  - **6–8 years:** Recognizes patterns, enjoys puzzles/sensory activities.
  - **9–12 years:** Refines sensory skills, enjoys music, art, complex games.



NURSING TEAM

## Features of School Age (6-12 years)

- Growth becomes relatively steady.
- More mature intelligence developed.
- Increasing desire for knowledge.
- Decreasing incidence of diseases.
- Fine motor skills continue to develop.
- Eager to please parents and other adults.
- Friends becoming more important.
- Compares self to others.
- Learning rules, 'winners' and 'losers'.

## Nutritional Pattern

- School meals and packed lunches are important.
- Balance food with physical activity.
- Provide grains, fruits, vegetables, low-fat dairy.
- Moderate sugars and salt.
- Healthy habits: Encourage regular meals, limit sugary snacks.
- Hydration: Promote adequate water intake.
- Involve child in food choices.

## Safety Considerations

1. **Traffic safety:** Teach road safety, supervise outdoor play.
2. **Internet safety:** Educate on safe online behavior, monitor screen time.
3. **Sports safety:** Ensure proper equipment, supervision.



## Parental Education

1. **Encouraging independence:** Teach self-care (dressing, grooming, managing schoolwork).
2. **Promoting social skills:** Provide opportunities for teamwork/group activities.
3. **Recognizing delays:** Educate on monitoring milestones, seeking early intervention.

## Nursing Interventions

1. **Growth monitoring:** Track weight, height, BMI.
2. **Developmental screening:** Use standardized tools.
3. **Family support:** Guidance on school-age care, early intervention.

## Growth and Development Red Flags (School Age)

- **Gross Motor:** Difficulty with coordination/balance by **8 years**, avoids physical activities/struggles with basic motor tasks by **12 years**.
- **Fine Motor:** Difficulty with handwriting/using tools by **8 years**, persistent difficulty with fine motor tasks by **12 years**.
- **Vocalization:** Difficulty understanding/expressing ideas by **8 years**, limited vocabulary/inability to engage in age-appropriate discussions by **12 years**.
- **Socialization:** Difficulty making friends/following rules by **8 years**, persistent social withdrawal/inability to resolve conflicts by **12 years**.
- **Sensory:** Difficulty recognizing patterns/responding to sensory stimuli by **8 years**, avoids sensory activities/struggles with sensory integration by **12 years**.

# Adolescence (12 to 18 Years)

## Introduction

- From Latin 'Adolescere' meaning "to grow, to mature".
- WHO defines adolescents as **10-19 years**.
- Transition from childhood to adulthood, dynamic stage of human development.
- Marked physical, emotional, intellectual, social changes.

## Demography

- 2nd largest population group (**23%**), 1/5th of total world population (**1.2 billion**).
- Nearly 90% live in developing countries.
- Significant portion of Jordanian population (1.4 million).

## Importance of Adolescents

- Demographic force, economic force, future health.

## The "Ages" of Adolescents

- Not one stage, but three:
  - **Early adolescence (10-14 years):** Growth spurt & secondary sexual characters.
  - **Middle adolescence (15-17 years):** Separate identity from parents, new peer relationships, opposite sex interests.
  - **Late adolescence and young adults (18-24 years):** Distinct identity, well-formed opinions and ideas.

## Changes During Adolescent Period

- Biological, Cognitive, Emotional, Psycho-Social.

## I. Biological Changes

### a. Physical Development:

- Head size near adult levels by **age 5**.
- Brain volume at least 95% of adult by **age 6**.
- **Growth spurt:** Rapid changes in height and weight during puberty.
- **Skeletal growth:** Secondary growth spurt, 25% of adult height.
- **Weight gain:** Males 7-30kg, Females 7-25kg.
- **Height gain:** Males 10-30cm, Females 5-20cm.

### b. Physiological Growth:

- Pulse: Reaches adult value (**60-80 beats/min**).
- Respiration: **16-20 breaths/min**.

### c. Maturation of Reproductive System:

- Puberty occurs earlier in Females (**11 years**) than males (**13 years**).
- Physical, psychological, sexual maturation.
- **Primary sexual characteristics:** Reproductive organs & genitalia develop.
- **Secondary sexual characteristics:** Breast development, menstruation, voice change, increased oil/sweat glands, acne.

NURSING TEAM



## II. Cognitive Development (Piaget: Formal Operational Thinking)

- Advanced Reasoning Skills: Options, possibilities, logical, hypothetical thinking.
- Can handle abstract problems, judge good from evil, truth, justice, think deeply about God.
- Abstract Thinking Skills: Can take others' perspective, think about non-concrete things (faith, trust, beliefs, spirituality).

### Moral Thinking (Lawrence Kohlberg)

1. **Pre-conventional Morality:** Before **age 9**, avoid punishment/gain reward.

2. **Conventional Morality:** Early adolescence, uphold social rules/laws.

3. **Post-conventional Morality:** Affirms agreed-upon rights/follows personal ethical principles.

### How Cognitive Changes Affect Teens

- Heightened self-consciousness.
- Believes no one else experienced feelings/emotions.
- Cause-oriented, justice orientation.
- "It can't happen to me" syndrome.

### What Adults Can Do (Cognitive)

- Don't take it personally if teens discount experience.
- Discuss behavior, rules, consequences.
- Provide community service opportunities.
- Ask teens their view and share own.

## III. Psycho-Social Development (Erikson: Sense of Identity)

- Establishing identity: Integrates others' opinions into own likes/dislikes, needs diverse interactions.
- Establishing autonomy: Becoming independent, self-governing; make decisions, live by principles, less emotionally dependent on parents.
- Establishing intimacy.
- Achievement: Society values competition/success; need to determine achievement preferences, areas to strive for.

### How Psycho-Social Changes Affect Teens

- Challenge values, critical of adult authority, more argumentative.
- Interact with parents as people.
- Rely on peer relationships, spend more time with friends.
- Mood swings (especially early adolescents).
- Begin to lock bedroom door.
- Involved in multiple hobbies/clubs.

### What Adults Can Do (Psycho-Social)

- Establish rituals for significant passages.
- Know friends and their activities.
- Provide structured environment/clear expectations.
- Encourage involvement in groups.
- Praise efforts and abilities.
- Help explore career goals/options.
- Help set guidelines/consequences.



NURSING TEAM

## IV. Emotional Development

- Changes in emotional control due to incomplete brain development until late adolescence.
- Inconsistent emotional control, impulses, judgments.
- Interest in **Body Image** ("The way a person pictures his or her body").
  - Important for self-concept, self-acceptance, confidence in social relationships.
  - Idealized vs. realistic idea of attractiveness, strength, skills.
  - Comparing with peers.

## How Emotional Changes Affect Teens

- Risk-taking as group behavior.
- Frequently sleep longer (**9 hours**).
- More clumsy due to growth.
- Girls sensitive about weight.
- Concern about physical development rate compared to peers.
- Feel awkward showing affection to opposite-sex parent.

## What Adults Can Do (Emotional)

- Expect inconsistency in responsibility/decision-making.
- Provide opportunities for "safe" risk-taking.
- Avoid criticizing/comparing.
- Encourage enough sleep.
- Encourage/model healthy eating and activity.

## Factors Affecting Adolescent Development

- Socioeconomic circumstances, environment, quality of family/community/peer relationships, education/employment opportunities.

## Adolescent Health

- Optimal well-being in all areas: physical, emotional, cognitive, social, spiritual.
- Foundation for adult health, enables full teenage potential.
- Unsafe choices can have immediate, life-threatening consequences.
- Unhealthy behaviors can become long-term risk factors for chronic conditions.

## Factors That Affect Adolescent Health

- Parents/families, peers, neighborhoods/communities, schools, community organizations, government/policies/laws, health care system, media, employers, social norms, faith, gender/discrimination.

## Adolescents' Health Risks, Problems And Solutions

- Behaviors-related problems.
- Physiological Health-related problems.
- Psychosocial Health-related problems.

- **70%** of adolescent death and illness caused by six categories of risk behavior:

**1.Unintentional and intentional injuries:** Leading cause of death/disability.

- **Unintentional:** Automobile, drowning, sports-related accidents.
- **Intentional:** Violence, homicide, suicide.

**2.Alcohol and other drug abuse:** Warning signals (fall in academic performance, changed attitudes/interests/behavior, isolation, mood swings, fatigue, lack of enthusiasm).

**3.Tobacco use:**

- **1 in 10** younger adolescents (13-15) uses tobacco globally.
- Contains 6800 chemicals, many carcinogens.
- Peer pressure and advertising are strongest factors.
- Reduces life expectancy.
- Nicotine levels manipulated for addiction.

**4.Sexual behaviors:**

- Early pregnancy and childbirth: High maternal mortality, high perinatal mortality, high low birth weight (LBW) rate, abortion, STDs.
- Laws specifying minimum marriage age of **18** can help.

**5.Unhealthy dietary behaviors:**

- Male adolescent: **2400 cal/day**.
- Female adolescent: **2100 cal/day**.
- Nutritional problems: Undernutrition, obesity, eating disorders, micronutrient deficiencies.
  - **Malnutrition (Undernutrition):** **47%** girls, **58%** boys (**15-19 years**, BMI < 18). Affects physical work capacity. Iron deficiency anemia is third cause of death/disability.
  - **Obesity (Over-nutrition):** Poor eating habits, lack of physical activity, genetics, faulty metabolism.
  - **Eating Disorders:**
    - *Anorexia nervosa*: Self-starvation to prevent weight gain.
    - *Bulimia nervosa*: Recurrent large food consumption followed by purging (vomiting, laxatives, excessive exercise).

**6.Inadequate physical activity:** Fewer than **1 in 4** adolescents meet recommended **60 minutes** daily.

**7.Other Adolescent Health Problems:** Mental health (anxiety, depression, suicide), acne/skin disorders, congenital malformation/defects, asthma, congenital/rheumatic heart diseases, tuberculosis, malaria, sleep disorders.

### Barriers Preventing Adolescents From Seeking Health Services

- Do not recognize illnesses, unaware of consequences, do not want attention.
- Do not know where to go.
- Fear health workers may humiliate, ask difficult questions, conduct unpleasant procedures.
- Uncomfortable with opposite-sex health workers.
- Parental consent required.
- Concerns about confidentiality.
- Cumbersome bureaucratic procedures, long waiting times.

## Adolescents Health Promotion (Three Levels of Prevention)

- **Primary prevention:** Policies, information & education.
- **Secondary prevention:** Identification & reduction of risk.
- **Tertiary prevention:** Treatment & rehabilitation.

### A. Primary Prevention

- **Promoting healthy development & lifestyles:**
  - **Policies & Legislation:** Minor concept, reproductive health, substance abuse, occupational health, accidents, public health.
  - **Information:** One-way (radio, TV, newspaper, books, films), two-way (in person, telephone).
  - **Education:** Provides information, intellectual/social/moral development, managing health, guidance on hygiene, exercise, rest, eating, drinking, maturation, relationships.

### B. Secondary Prevention

- **Settings:** Schools, workplaces, youth organizations.
- **Adolescent friendly health services:**
  - Reproductive Health services and education (contraception, pregnancy testing, prenatal/postpartum care, well-baby care, STD/HIV screening/counseling/treatment).
  - Immunization.
  - Screening programs (visual/learning disorders, oral health, risk behaviors, various disorders).
  - Nutritional services.
  - Growth & development monitoring.
  - Guidance about substance abuse and other risk-taking behavior.
  - Counseling for life skill development.

### C. Tertiary Prevention

- Curative services, education/information on causes.
- Rehabilitation: Develop physically, psychologically, socially.
- Cooperation between sectors.

## Assessment of Growth Methods

### 1) Body Mass Index (BMI)

- Assesses normal growth or deviations (malnutrition, obesity).
- Formula:  $\text{Weight in Kg} / (\text{Height in meter})^2$ .
- BMI remains constant up to **5 years**.
- **BMI Categories:**
  - Underweight =  $<18.5$
  - Normal weight =  $18.5-24.9$
  - Overweight =  $25-29.9$
  - Obesity = BMI of **30** or greater.
- BMI  $> 30 \text{ kg/m}^2$  indicates obesity.
- BMI  $< 15 \text{ Kg/m}^2$  indicates malnutrition.

## 2) Osseous Growth

- Bony growth follows definite pattern/time schedule from birth to maturation.
- Calculated by appearance of ossification centers via X-ray.
- Skeletal maturation/bone growth indicates physiological development, continues up to **25 years**.

## Methods of Nutrition Assessment (ABCD)

1. **Anthropometric:** Measurement of body (height, weight, skin fold thickness, circumferences of arm/head/chest, proportions).
2. **Biochemical:** Laboratory analysis of plasma, blood cells, urine, tissue (liver, bone, hair).
3. **Clinical examination:** Physical signs associated with malnutrition, vitamin/micronutrient deficiencies.
4. **Dietary evaluation methods:** 24-hour dietary recall, food frequency questionnaire, dietary history, food diary/record.



**NURSING TEAM**

# Promoting Health in Young and Middle-Aged Adults

## Adulthood Phases

- Young adulthood: **20 – 40 years**.
- Middle adulthood: **40 – 65 years**.
- Late adulthood: over **65 years**.

## Young Adults (20 to 40 Years)

### Criteria to Describe Adulthood

- Social context (e.g., voting at **18** in US).
- Financial independence.
- Moving away from home, establishing own living arrangements.

### Physical Development

- Prime physical years; body most efficient at **~25 years**.
- Musculoskeletal system well-developed, coordinated.
- Muscles gain strength throughout 20s, peak at **30** (exercise/genetics dependent).
- Men have larger muscles, more force.
- Peak athletic endeavors.
- All body systems (cardiovascular, visual, auditory, reproductive) function at peak efficiency.
- Minimal physical changes, but weight/muscle mass may change due to diet/exercise.
- Busy, face many challenges; assume new roles at work/home/community.
- Open to new experiences, tolerate ambiguity, flexible, adapt to change.
- **Dental Maturity:** Achieved in 20s with wisdom teeth emergence.
- Reproductive systems fully mature: best time for childbearing.
- Brain cell development reaches peak.

### During The Thirties

- Physically adults gradually slow down.
- Muscle size/strength maintained with regular exercise; progressive decline without it.
- Skin loses resilience/elasticity; wrinkles appear.
- Hair growth slows, loss, or greying.
- Genetic predisposition to baldness/early greying.
- Gradual shrinking of brain cells after **age 30** (not major concern).
- Visual acuity stable, hearing declines in late **20s**.

### Psychosocial Development (Erikson: Intimacy vs. Isolation)

- Basic developmental task: establishing intimacy/close friendship.
- Establishing firm sense of self, then reaching out for loving, intimate relationships.
- Choice of lifelong partner, considerations of childbearing.
- Remaining single for education/vocation freedom is growing.
- Choices about education and employment.
- Social responsibilities: new friendships, community activities.
- Many experience parental divorce stressors.
- Changing women's role: careers, civic roles in addition to mother/wife roles.

### Psychosocial Development (Newman)

- Identifies social and occupational roles.
- Experiences stress related to changing roles.
- Experiences conflict related to demands of roles.
- Interested in personal discovery and self-discovery.

### Psychosocial Development (Havighurst)

- Developmental tasks: selecting a mate, living with partner, starting a family, rearing children, managing a home, starting occupation, civic responsibility, finding social group.

### Cognitive Development

- Use formal operations: abstract thinking, logic, generate hypotheses.
- Thought includes creativity, intuition, relating information to other ideas.
- Aware most problems have multiple causes/answers, some solutions better than others.
- Comprehend and specialize in particular interest areas.

### Moral Development (Kohlberg: Postconventional Level)

- Separate self from expectations/rules of others; define morality by personal principles.
- Judge conflicts with society's rules by own principles (e.g., protesting for wildlife conservation).

### Spiritual Development

- Focuses on reality.
- Religious teaching from childhood may be accepted or redefined.

### Health Problems

- High-risk takers, substantial injury risk.
- **Injury and violence:** Suicide, car accidents.
- Hypertension, smoking, substance abuse.
- Sexually transmitted infections.
- Eating disorders: obesity.
- **Malignancies:** *Testicular cancer* most common in young men; *Breast cancer* most common in women.

## Middle-Aged Adults (40 to 65 Years)

### Introduction

- "Years of stability and consolidation."
- Children grown and moved out; partners have more time together.
- State of Maturity: maximal function and integration.
- Noticeable changes approaching fifth decade.
- At **40**, most function as effectively as in 20s; many physical changes occur between **40-65**.



NURSING TEAM

## Physical Development

### Physical Changes

1. **Reproductive system:** Decreasing hormonal production (menopause in women).
2. **Appearance:** Hair thinning/greying, decreased skin turgor/moisture, wrinkling, subcutaneous fat decreases/redistributes (abdominal fat deposits), nail/hair growth slows, baldness.
3. **Musculoskeletal system:** Skeletal muscle bulk decreases ~**age 60**. Thinning intervertebral disks (1-inch height decrease). Calcium loss from bone tissue (more in postmenopausal women). Muscle growth proportional to use.
4. **Metabolism:** Slows, resulting in weight gain (abdomen, hips, thighs, chest wall).
5. **Sensory perception:**
  - Visual acuity declines (especially near vision/presbyopia) by late **40s**.
  - Hearing loss (presbycusis) limited to high pitches, especially in men.
  - Taste sensation diminishes.
6. **Cardiovascular system:** Blood vessels lose elasticity, thicken.
7. **Gastrointestinal system:** Gradual decrease in digesting/absorbing/eliminating food, predisposes to constipation.
8. **Urinary system:** Nephron units lost, glomerular filtration rate decreases.

### Memory

- Minimal losses for most; many show no loss.
- **Sensory memory:** No decline.
- **Short-term memory:** No decline.
- **Long-term memory:** Some decline, less efficient storage/retrieval.

### Psychosocial Development (Erikson: Generativity vs. Stagnation)

- **Generativity:** Concern for establishing/guiding next generation; welfare of humankind equal to self-concern. Marriage partners have more time for companionship/recreation.
- **Stagnation:** Unable to expand interests, do not assume responsibilities; boredom, impoverishment. Difficulty accepting aging bodies, withdrawn, isolated. Preoccupied with self, unable to give to others. May regress to younger behaviors.

### Psychosocial Development (Havighurst)

- Developmental tasks: achieving civic/social responsibility, economic standard of living, assisting teenage children, developing relaxation activities, relating to spouse as a person, accepting/adjusting to physiological changes, adjusting to aging parents, balancing multiple constituencies, work as central theme.

### Cognitive Development

- Cognitive and intellectual abilities change very little.
- Reaction time stays similar or diminishes late in middle years.
- Memory and problem solving maintained.
- Learning continues, enhanced by increased motivation.
- Genetic, environmental, personality factors account for differences in mental abilities.
- Professional, social, personal life experiences reflect in cognitive performance.

### Kinds of Intelligence

- **Fluid Intelligence:** Reasoning and problem-solving abilities independent of culture/environment; deals with new problems. Declines with age.
- **Crystallized Intelligence:** Store of information, skills, strategies acquired through education/experience; numerical and verbal abilities. Holds steady or increases with age.

## Moral Development (Kohlberg)

- Can move beyond conventional to postconventional level.
- Significant improvement in moral awareness, processing, compensatory action, decision-making.

## Spiritual Development

- Less strict about religious beliefs.
- Religion often offers more comfort.
- Rely on spiritual beliefs to deal with illness, death, tragedy.

## Health Problems

### 1. **Cardiovascular Disease:** Leading cause of death.

- Risk factors: Smoking, obesity, hypertension, hyperlipidemia, diabetes mellitus, sedentary lifestyle, family history of MI/sudden death in parents (**55-65 years**).

### 2. **Obesity:** Due to decreased metabolic activity and physical activity.

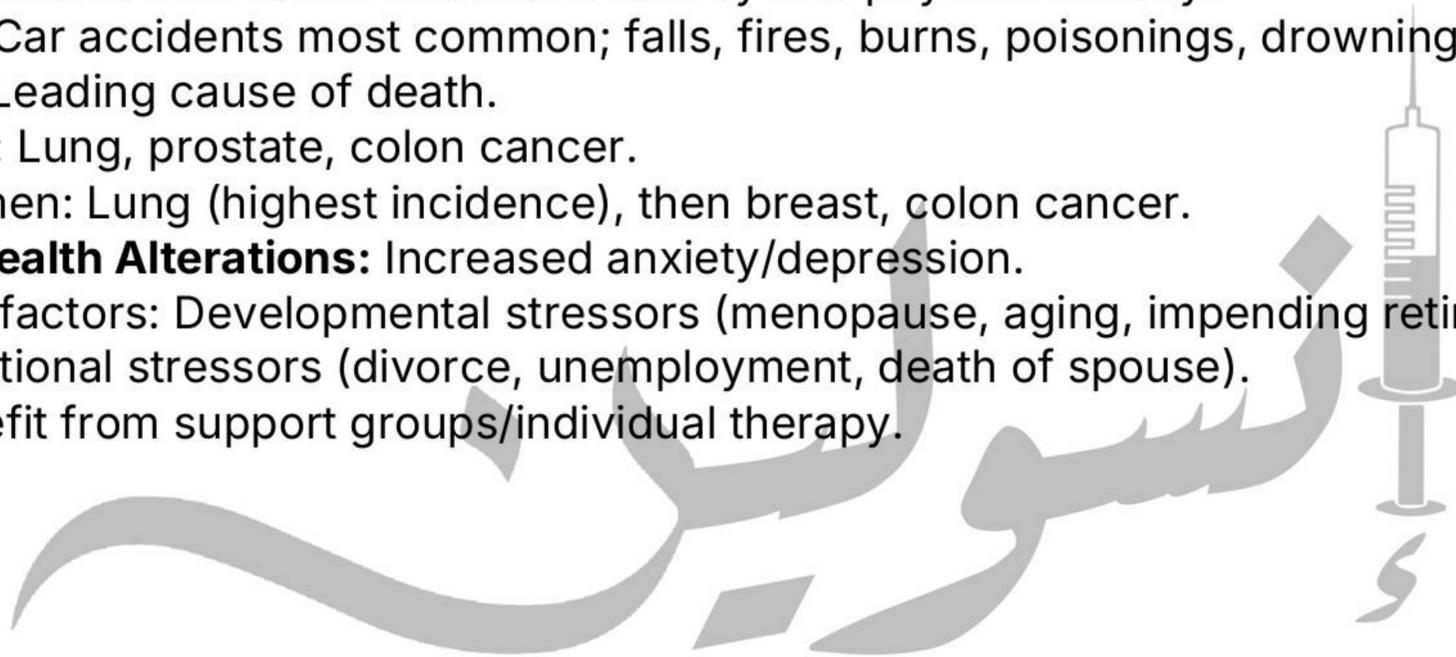
### 3. **Injuries:** Car accidents most common; falls, fires, burns, poisonings, drownings.

### 4. **Cancer:** Leading cause of death.

- Men: Lung, prostate, colon cancer.
- Women: Lung (highest incidence), then breast, colon cancer.

### 5. **Mental Health Alterations:** Increased anxiety/depression.

- Risk factors: Developmental stressors (menopause, aging, impending retirement), situational stressors (divorce, unemployment, death of spouse).
- Benefit from support groups/individual therapy.



**NURSING TEAM**

# Promoting Health in Older Adults

## Categories of Older Adults

- Young-old: **60 to 74 years**.
- Old, old: **75 to 100 years**.
- Centenarians: older than **100 years**.
- Each group has distinct interests and health care needs.

## Terminology

- **Gerontology**: Study of aging and older adults (multidisciplinary).
- **Geriatrics**: Medical care (diseases and disabilities) of older adults.

## Care Settings for Older Adults

1. **Acute Care Facilities**: Majority of clients. Hospitalization may be perceived as threat to autonomy.
2. **Long-Term Care Facilities**: Health care and personal care for chronic disease/disability.
  - **a. Assisted living**: For those not safe living alone or needing extra help; own apartment.
  - **b. Intermediate care**: No longer independent; 24-hour nursing oversight.
  - **c. Skilled care units (SNFs)**: Higher level of nursing care (tube feedings, IV therapy, wound therapy, mechanical ventilators).
  - **d. Alzheimer's disease (AD) units**: For progressive dementia, memory loss. Nurses have specialized knowledge, help families cope.
3. **Hospice**: Care for dying clients/families. Goal: pain management, psychosocial/spiritual care through dying process.
4. **Rehabilitation**: For chronic illnesses, long-term functional limitations (orthopedic surgery, stroke, amputation).
5. **Community**: Home health care, adult day care.

## NURSING TEAM

## Normal Physical Changes Associated with Aging

### Skin

- Increased dryness, pallor, fragility.
- Progressive wrinkling/sagging, loss of elasticity.
- Brown "age spots" (lentigo senilis) on exposed parts.
- Reduced number/function of sweat glands.
- Thinning/graying of hair.
- Slower nail growth, increased thickening.

### Neuromuscular

- Decreased speed/power of skeletal muscle contractions.
- Decrease in muscle fibers.
- Loss of height (stature), loss of bone mass.
- Joint stiffness, impaired balance.
- Stooping posture (round-shouldered) due to muscle weakness/kyphosis.
- Greater difficulty in complex learning.

## Sensory/Perceptual

1. **Loss of visual acuity:** Lens opacity (cataracts), thickening/inelasticity (presbyopia).
2. Increased sensitivity to brightness, decreased ability to adjust to darkness.
3. Glossy white circle around cornea (arcus senilis) due to fatty deposits.
4. Progressive loss of hearing (presbycusis): Inner ear changes, thickening eardrum.
5. Decreased sense of taste (especially sweet) due to decreased taste buds/tongue atrophy.
6. Decreased sense of smell due to atrophy of olfactory bulb.
7. Increased threshold for pain, touch, temperature sensations due to neuron changes.

## Pulmonary

- Decreased ability to expel foreign/accumulated matter (decreased elasticity/ciliary activity).
- Decreased lung expansion, less effective exhalation, reduced vital capacity, increased residual volume (weakened thoracic muscles, calcification of costal cartilage).
- Difficult, short, heavy, rapid breathing (dyspnea) after intense exercise.

## Cardiovascular

- Reduced cardiac output/stroke volume (especially during increased activity), may result in shortness of breath, pooling of blood in extremities.
- Increased rigidity/thickness of heart valves, decreased contractile strength.
- Reduced elasticity/increased rigidity of arteries.
- Increase in diastolic and systolic blood pressure.
- Orthostatic hypertension.

## Gastrointestinal

- Delayed swallowing time.
- Increased tendency for indigestion.
- Gradual decrease in digestive enzymes, reduced gastric acid, slower absorption.
- Increased tendency for constipation.

## Urinary

- Reduced filtering ability of kidney, impaired renal function (decreased functioning nephrons).
- Urinary urgency and frequency.
- Less effective concentration of urine.
- Enlarged prostate gland in men; weakened bladder support/urinary sphincter in women.
- Tendency for nocturnal frequency and retention of residual urine.

## Genitals

- Prostate enlargement (benign) in men.
- Multiple changes in women (shrinkage/atrophy of cervix, uterus, fallopian tubes, ovaries).

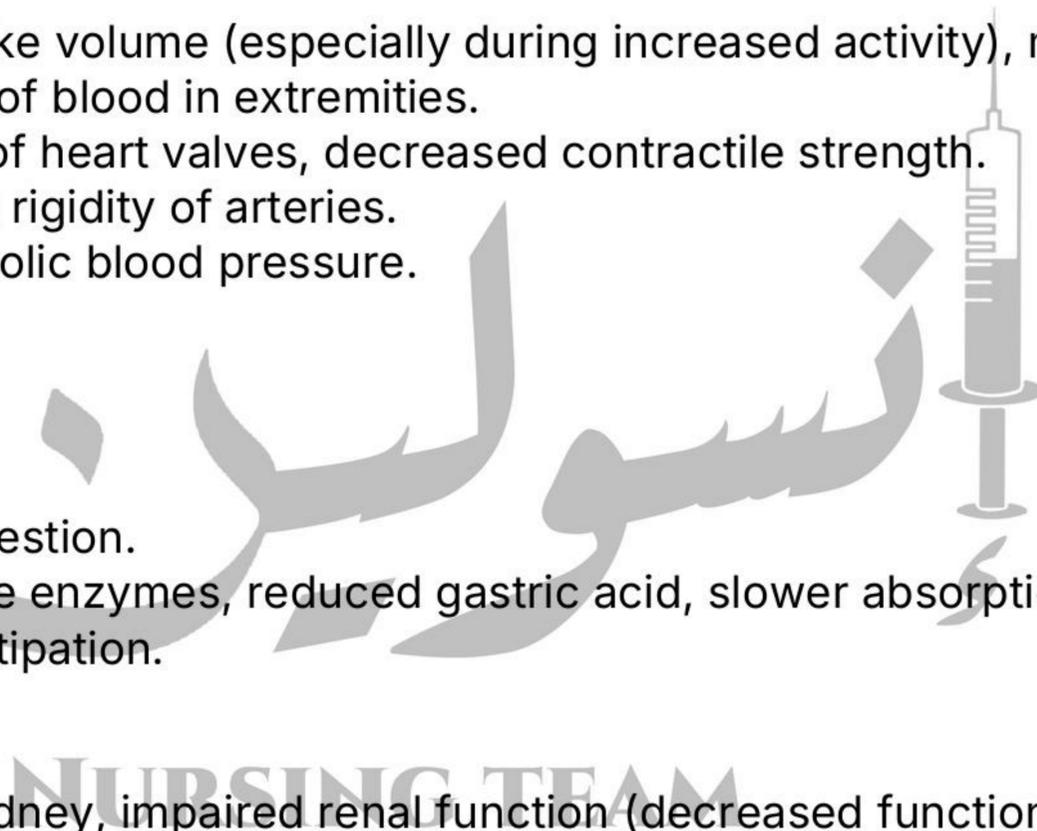
## Immunologic

- Decreased immune response; lowered resistance to infections (T cells less responsive, B cells produce fewer antibodies).
- Poor response to immunization.
- Decreased stress response.

## Endocrine

- Increased insulin resistance.
- Decreased thyroid function.

## Psychosocial Aging



- Adjusting to decreasing physical strength/health.
- Adjusting to retirement/lower fixed income.
- Adjusting to new relationships with adult children/grandparenting.
- Adjusting to free time.
- Adjusting to slower physical/cognitive responses.
- Keeping active and involved.
- Making satisfying living arrangements.
- Adapting to living alone.
- Safeguarding physical and mental health.
- Finding meaning in life.
- Maintaining independence and self-esteem.
- Adjusting to death of parents, spouses, friends.
- Facing death and grieving.
- Adjusting to one's own death.

## Cognitive Abilities and Aging

### Perception

- Ability to interpret environment; depends on acuteness of senses.
- Impaired senses diminish ability to perceive environment and react appropriately.

### Cognitive Agility

- Changes more often in speed than ability.
- Overall, older adult maintains intelligence, problem solving, judgment, creativity, well-practiced cognitive skills.
- Intellectual loss generally reflects disease (e.g., atherosclerosis affecting brain perfusion).

### Memory

- Steps: sensory memory, short-term memory, long-term memory.
- Retrieval from long-term memory can be slower, especially for infrequently used information.
- Tendency to forget recent past.
- Can be improved by memory aids, notes/lists, consistent object placement.

## Spirituality and Aging

- Take faith/religious practice seriously; high level of spirituality.

## Health Problems

- **Injuries:** Falls are leading cause of morbidity/mortality (limited vision, slowed reflexes, brittle bones).
- **Chronic Disabling Illness:** Arthritis, osteoporosis, heart disease, stroke, obstructive lung disease, hearing/visual alterations, cognitive dysfunctions.
- **Drug Abuse and Misuse.**
- **Dementia:** Progressive loss of cognitive function (memory, judgment, language, calculation, abstract reasoning, problem-solving).
- **Mistreatment of Older Adults:** Physical, psychological, emotional abuse, financial abuse, human/civil rights violations, active/passive neglect.

**Done by : Raeda khaleel**