

## Age-Specific Education, Post-Test, and Answer Sheet

### Instructions for successful course completion:

- I. Read the Self-Learning Packet in its entirety.
- II. Successfully complete the Post-Test with a score of 80%.

You will be notified should your course requirements be incomplete or if you did not successfully complete the course. If unsatisfactory completion occurs, you will be asked to review the material contained within this packet and you may retake the test.

### Objectives

After completing this Self-Learning Packet, the Participant will be able to:

1. Compare and contrast the developmental phases by depicting a wide range of normal elements in physical and motor growth for each phase
2. Discuss specifics, which are crucial to normal emotional and social development for each developmental phase
3. Describe communications with regard to age-appropriateness
4. Discuss nursing implications and safety issues in caring for the hospitalized patient, including the infant, child, adolescent, adult, and geriatric adult
5. List specific interventions related to infant, child, adolescent, adult, and geriatric adult when caring for or teaching a patient
6. Explain how to involve the family and/or significant other in the plan of care

### Growth & Development

Though growth and development are different from one another, they are part of a continuous process, which begins at the time of conception and continues until death.

**Growth:** A measurable event referring to physical size.

**Development:** Denotes skills and social development and may be difficult to measure.

### Types of Developmental Stages

There is great variability in human development, but certain similarities exist in most persons. Each stage, from childhood to the end of life, is associated with specific developmental tasks. The successful completion of those tasks prepares the person to move on in life, ready to meet the challenges of the next stage. Each individual is unique and passes through developmental stages at his/her own rate.

Physical development is cephalocaudal (head to toe) and proximal to distal, with regard to body parts.

Cognitive development is a type of developmental skill, which can be measured. It refers to the ability to learn something through experience; it is the ability to learn and retain knowledge or respond to new situations to solve a problem.

### Factors which Influence Growth & Development

These include, but are not limited to, genetics, environmental, socioeconomic level, cultural beliefs and practices, health and wellness, and nutrition.

**Genetic Influence** – Determines the basic make-up of the individual from time of conception. For example, will grow to genetically permitted height regardless of the quality and quantity of exercise and nutrition.

**Environmental Factors** – May have tremendous influence on growth and development due to chemicals, water content, pollution, climate, and surroundings permitting certain activities.

**Cultural Beliefs & Practices** – May affect growth and development due to types of foods eaten, styles of living, health treatment beliefs, etc.

**Health & Wellness** – Naturally affect both growth and development, especially if a child is ill at an early age or chronically ill.

This chart organizes the ages and stages of children according to comparative theories of child development.

Table 1-1. Ages & Stages of Children

| Theories of Child Development  | Birth – 18 Months  | 19 Months – 2 Years  | 3 Years – 5 Years  | 6 Years – 11 Years   | 12 Years – 18 Years  |
|--------------------------------|--|--|--|--|--|
| <b>Erikson</b>                 | Trust vs. mistrust   | Autonomy vs. shame and doubt   | Initiative vs. guilt   | Industry vs. inferiority   | Identity vs. role confusion  |
| <b>Freud</b>                   | Oral - sensory   | Anal   | Phallic  | Latency  | Genital  |
| <b>Piaget</b>                  | Sensory-motor egocentrism  | Preoperational, beginnings of perceptual constancy   | Preoperational, prelogical reasoning   | Concrete operations  | Formal operations  |
| <b>Task mastery</b>            | Differentiate self and non-self  | Toilet training  | Use of language  | Logic  | Abstract thinking  |
| <b>Pain perception</b>         | Physical but possibly not cognitive pain perceived, in younger patients  | Primarily egocentric: "Here and now"<br>May see pain as punishment   | Pain as punishment<br>Overextension of causality<br>Fear and fantasy   | Beginning of understanding of true causality<br>Fear of destruction and death  | Concept of emotional and physical pain<br>Understanding of root causes of pain   |
| <b>Suggested interventions</b> | <ol style="list-style-type: none"> <li>1. Involve caretaker in care of child.</li> <li>2. Keep child warm.</li> <li>3. Keep room quiet</li> <li>4. Provide comfort measures (e.g., pacifier).</li> <li>5. Keep child on caretaker's lap during physical examination.</li> <li>6. Return child to caretaker as soon as possible after procedures; allow caretaker to comfort child</li> </ol> | <ol style="list-style-type: none"> <li>1. Prepare caretaker for procedures.</li> <li>2. Tell caretaker that he or she may assist in normal care.</li> <li>3. Give child a familiar toy or blanket as a transitional object.</li> <li>4. Use child's name</li> <li>5. Restrain child as little as possible.</li> <li>6. Avoid covering child's face.</li> <li>7. Describe sensations and talk with child during the procedures.</li> <li>8. Praise, smile, and have a cheerful attitude.</li> </ol> | <ol style="list-style-type: none"> <li>1. Explain procedure immediately before performing it.</li> <li>2. Allow child to see and touch samples of equipment.</li> <li>3. Be honest: "This will sting."</li> <li>4. Use simple distractions and talk to child.</li> <li>5. Allow child to see under bandages.</li> <li>6. Use praise, decorated adhesive bandages and small rewards.</li> </ol> | <ol style="list-style-type: none"> <li>1. Explain procedures beforehand.</li> <li>2. Enlist cooperation.</li> <li>3. Ask about simple preferences.</li> <li>4. Give alternatives (e.g., child may yell but not move.)</li> <li>5. Identify sensations and personnel.</li> <li>6. Use distraction and counting games.</li> <li>7. Include child in discharge instructions.</li> <li>8. Use rewards stickers, badges, and praise.</li> </ol> | <ol style="list-style-type: none"> <li>1. Give full explanations.</li> <li>2. Encourage child's participation.</li> <li>3. Allow time for questions.</li> <li>4. Provide privacy. Child may want to exclude parents.</li> <li>5. Avoid teasing and embarrassing child.</li> <li>6. Allow as much control as possible.</li> <li>7. Provide discharge instructions to patient.</li> <li>8. Reassure child that his or her behavior was appropriate.</li> </ol> |

## Learning Processes

It is essential that the healthcare worker understands how an individual learns best. For instance, though a child looks like a “little adult,” they are not. Therefore, information must be presented in the manner which promotes learning, taking into consideration numerous aspects such as attention span or deficit, readiness, and age-specific needs.

**Learning:** The basic developmental process of change in the individual and the results from experience or practice. We learn skills and obtain knowledge.

**Readiness:** Refers to a point in time when the individual has matured sufficiently to learn a particular behavior.

## Age Appropriate Education of the Child

Understanding the needs of the parent and child - When a child becomes hospitalized, the fears experienced by parent and child often include the following:

- Fear of the unknown: what will happen next and what procedures may be performed
- Fear of pain or loss
- Fear of isolation or separation
- Fear of strangers caring for the child
- Fear of the unfamiliar environment with strange machines and equipment

The following basic principles can facilitate the treatment and care of children:

### Remain calm and confident

- Speak with a calm, soft voice in order to lessen anxiety of parent and child
- Maintain control of the situation by taking charge and being gently assertive

### Establish rapport with the parent or caretaker and the child

- Speak directly to the parent and child
- Encourage the child to explain how he/she feels
- Assign the same caregiver(s) when possible in order to promote continuity and effective communication
- Listen to the needs and concerns of the parents

### Be direct and honest

- Tell the parent and/or child exactly what it is that you need them to do
- Do not mislead. If it will be painful, tell them so
- Discuss possible indications of unresolved problems such as bedwetting

### Keep the child and caretaker informed

- Tell the child exactly what to expect. “I am going to wipe your arm with a wet, cool piece of cotton. It will probably feel cold to you”
- Provide information to parents regarding the child’s condition and progress

### Provide the child a way to relieve or deal with distress

- “You can wash the icky tasting medicine down with water”
- Use “play” opportunities in order to help the child work through problems

### Do not separate the parent and child any more than is necessary

- Nurturing and familiarity of parents helps to lessen the anxiety of the child
- Participation in care or treatment also helps to reassure parents and child

### Be kind and provide feedback and reassurance

- Children appreciate reassurance, rewards, and praise
- Attitudes are expressed verbally and nonverbally toward the child

**Always look for signs of regression during hospitalization**

- Thumb-sucking and choosing to play with toys for younger age groups
- Some children regress when they feel a loss of self-control
- If the child has regressed, teach the child at the present level instead of the chronological age

**Address expressed concerns over the impact of the hospitalization on other family members, such as siblings**

- Involve the siblings when possible through a brief visit with the hospitalized child or through the use of photos, audio or video tapes, drawings, phone calls, etc.
- Discuss with parents the types of behaviors that may be anticipated by siblings, such as behavior regression, in order to gain needed attention

**Preparing the family for the child's return home**

- Involve parents in planning care and setting goals throughout the hospital stay
- Provide information to parents on the use of equipment and how to care for the child when he/she returns home
- Plan ways in which the parent can participate in care and/or return demonstrations

**General guidelines for teaching children about a procedure:**

**Assess the education level of the child and the parent prior to the teaching session**

- Ask the child why he/she is in the hospital
- If assessing through medical "play," often the child gives the doll the same condition or problem that he/she is experiencing
- If the child is unaware as to why he/she or the "doll" is in the hospital, then provide the information
- Ask the parent questions regarding the hospitalization in order to assess their level of understanding

**Cover the steps of what to expect in a way he/she will understand**

- Explain what the child will hear, feel, smell, see, or taste
- If the child is too young to have a sense of time, relate the procedure time to time before or after breakfast, lunch, dinner, bedtime, etc.

**Go through the steps in a "play" situation when teaching a very young child**

- Play nurse with a doll and change the dressing
- Provide the opportunity for the child to handle a mask that he/she will need to breathe deeply through during the procedure

**Choose your terms wisely since children may get confused by what they hear**

- "Dye" may be understood as "die."
- "ICU" may be thought of as, "I see you."
- "Dressing Change," child may think, "Why do I have to undress?"

**Visit the department in which the child will be treated if the child is old enough**

- A hospital room or radiology room – to look, touch, and to ask questions

**Assist the child to develop constructive coping mechanisms**

- Be positive in both attitude and with language
- Begin the thought process in medical "play" by asking the child what would help the "doll" (to cope) during the procedure
- Explain that it is okay to cry as long as he/she holds still during the procedure

**Answer questions honestly, "Will it hurt?"**

- Relate it to a childhood experience, such as "just like a tiny pinch on your arm."

## Cover the steps of what to expect using a concept he/she will understand

- If the operation is scheduled after breakfast, tell the child he/she will be out of surgery by lunch time

## Short, frequent sessions provide the best learning

- Continue sessions only as long as the child can tolerate, is interested, asks questions
- Set up additional sessions, if the child's attention span is not long enough, to cover all the material
- Document the amount and response to completed teaching

## Consider teaching the parents and child separately

- Parents usually will require more extensive information in order to provide appropriate care
- By providing the teaching at the level of the child, they will better understand

## Infancy: Birth – 1 Year

Susie, an alert, active one year old, has been on a fascinating, rapidly changing adventure from birth to 12 months of age. She has moved forward from the initial stage of total dependence for all care needs at birth, to one of continual progression in motor skills, recognition and response, and social adaptation to the world around her.

Some of the major changes include a growth of nine inches in height and a tripled weight. The fontanel is closing, she has 8 teeth, and her bladder and bowel pattern is becoming more regular. Motor adaptation has evolved from raising head, turning and rolling over, to crawling and now walking with some assistance. Reactions have become more intentional. Cognitive growth has progressed from the recognition of bright objects to the ability to obey simple commands, speaking 2 words, and learning by imitation.

**Psychosocially:** The most significant persons are her parents. A sense of trust and security has developed as needs are met in a consistent and predictable manner. While she smiles, repeats actions that bring responses from others, and plays pat-a-cake, she is also beginning to experience a fear of strangers and separation anxiety.

**Nursing Interventions:** It is important to keep parents in the line of vision of the infant, encourage parents to assist in care, limit the number of strangers providing care, cuddle and hug the infant, and provide familiar objects. Safety factors include the availability of a bulb syringe for suctioning; crib side rails should be up at all times, and keep all equipment out of the reach of the infant. Toys should be safety approved and have no removable parts.

## Toddler: 1 – 3 Years

Susie has now become an independent, progressively more active three year old. While her appetite has decreased somewhat, she continues to grow 2-2 ½ inches and 4-6 pounds yearly. By now she has achieved both bladder and bowel control. Susie loves to experiment, responds better to visual than spoken cues, and is very busily running, climbing and jumping. Cognitive changes include the fact that she tends to see things only from her point of view (egocentric), constructs 3-4 word sentences, ties words to actions, and has a short attention span.

**Psychosocially:** The parents continue to remain the most significant persons. She has discovered her ability to explore and manipulate her environment. Independence is well asserted (autonomy) and has developed a sense of will along with temper tantrums. Susie is very attached to security objects and toys and doesn't hesitate to claim ownership, "mine." She knows her own gender as well as the differences of gender. Play time may include being read to, simple games, or simply playing alone.

**Nursing Interventions:** Since mother is still very important, suggest that she spend the night if possible. Use a firm, direct approach, giving one direction at a time. Set limits, but allow choices when possible. Prepare the child shortly before the procedure. Use distraction techniques. Provide favorite age-specific foods, use familiar terms and follow home routines as possible. Be sure to give Susie permission to express her feelings. Maintain safety at all times.

## Pre – School: 3 – 6 Years

Five year old Susie continues to gain weight and grow by 2 - 2 1/2 inches in height yearly, but is becoming thinner as she grows taller. She is now dressing herself independently. Motor skills have become more refined allowing her the ability

to print her first name, draw a person with 6 major parts, skip and hop, roller skate, and even jump a rope. Her most major cognitive skill is conversation. She constructs sentences, questions, “why?” and knows her own phone number and address. Susie enjoys puzzles, understands numbers and can count, has a short attention span, and loves magical thinking.

**Psychosocially:** Significant persons are now siblings and peers in addition to her parents. Susie has become increasingly more independent and has begun to assert herself; likes to boast and tattle. Behavior is modified by rewards and punishments. She plays cooperatively, is able to live by rules and is capable of sharing, but may be physically aggressive.

**Nursing Interventions:** Demonstrate the use of equipment and tell her what to expect, using familiar objects (such as a doll) whenever possible. Focus on one thing at a time. Encourage the child to verbalize. Offer a badge of courage (stickers) and praise. Involve Susie by asking her to choose the site for her injection (right or left). Assess and manage pain, using distractions such as counting to 20 together. Provide rest periods.

### School: 6 –11 Years

Susie’s growth rate has become slow and regular and permanent teeth have taken the place of the “baby” teeth. Sometimes she experiences “growing” pains as her muscles stretch with the growth of her long bones. The motor skills have brought her the ability to draw, paint, and make useful articles. She enjoys quiet as well as active games and caring for her cat. Cognitively Susie now can comprehend as well as tell time, can handle and classify problems, think abstractly and reason, and test a hypothesis. She is very proud of her accomplishments in school and especially enjoys reading.

**Psychosocially:** Susie is beginning to prefer her friends to her family. Belonging to and gaining approval of a peer group is very important. Her behavior is controlled by expectations and regulations. Encourage her to discuss feelings. Provide privacy.

### Adolescence: 12 – 18 Years

With the beginning of puberty Susie has experienced marked biological changes. There has been rapid growth of skeletal size, muscle mass, adipose tissue, and skin. Though she is sometimes awkward in gross motor activities, her fine motor skills are improving. Susie is now easily fatigued and requires more sleep. Hormonal changes have brought about a maturing of her reproductive system and a development of primary and secondary sexual characteristics. Cognitive processes are those of thinking about possibilities and comparisons, discarding old attitudes and becoming more creative in thinking, and the ability to handle hypothetical situations and thought. Susie has become very introspective and self-absorbed as she works through all the changes taking place.

**Psychosocially:** Susie has a longing for independence and at times seems to challenge everything. At the same time she still needs to know the expectations. Advice or criticism is not easily accepted. The biological changes taking place cause some anxiety when she compares her appearance with her peers. She is also now very interested in the opposite sex and has struggled with her value system versus that of her parents. These sexual and self-identify issues often cause stress between Susie and her parents.

**Nursing Interventions:** Approach all areas of care and conversation with respect, dignity, and privacy. Encourage verbalization of fears, needs, and questions. Be sure to involve Susie in decision making processes since her sense of identity is easily threatened by hospitalization. Be logical in giving explanations. Establish clear goals and expectations. Use teaching methods that will promote learning, such as visual aids, return demonstrations, and age appropriate literature.

### Age Appropriate Education of the Adult

Human development takes on new character in adulthood, since it no longer primarily stems from sheer physical growth and the rapid acquisition of new cognitive skills. Adult growth is defined largely in terms of social and cultural milestones, as young people strive to become self-sufficient members of society. They begin to move from dependence in independence, assuming responsibility for themselves and others. Successful aging includes adaptation to changes in functional capabilities, social and possibly economic status.

Adulthood is subdivided into several categories, as is childhood. These include early, middle, late (elderly), and late, late adult (above 80 years). Clear definition of ages in reference to developmental staging is somewhat variable in literature. This information packet will primarily utilize the term geriatrics when referring to the elderly or older population.

### Early Adulthood: 19 – 45 Years

Susie has now terminated her dependency and has assumed responsibility for herself. She is in good health and enjoys her peak in physical energy, strength and stamina. Since this is the time when her cognitive abilities of creativity, judgment, reasoning, information recall and verbal skills are at a peak, she is very effective in her career field of elementary school education.

**Psychosocially:** Susie obviously loves teaching her 3<sup>rd</sup> grade class, but a wife and mother of her own toddler son; she is very busy trying to juggle her responsibilities. She is partly torn between her desire to “climb the career ladder” and her desire to have another child, since this is the optimal child – bearing time. In addition, she is aware of minor physical changes and begins to feel occasional concern for her own health. Fortunately she has a supportive husband as they evaluate family needs versus career.

**Nursing Interventions:** Encourage Susie to express concerns that hospitalization may have on the family unit, job, etc.; keeping in mind the stresses related to her multiple roles. She needs to be actively involved in decision making processes and care planning. Provide essential teaching, based on how she learns best. Discuss preventative healthcare measures, as applicable.

### Middle Adult: 46 – 59 Years

Susie has celebrated her 50<sup>th</sup> birthday and finds herself at the time in life when her developmental stage has become associated with “tasks”. While she still finds herself as a “take charge” person, she also has begun to realize that her roles have expanded. She is wife, mother, teacher, and now has added responsibilities toward her aging father. Physically she is most aware of the changes brought on by the beginning of menopause. Proper diet, health maintenance and screening, regular exercise and proper diet have become important in promoting optimal health. Cognitive changes such as mood swings, a decrease in short term memory and a decline in the ability to quickly synthesize new information are starting.

**Psychosocially:** Susie is beginning to realize her limitations. This is the time to redefine goals as career demands change, responsibility increases toward her elderly father, and adjustments made to children leaving home (empty nest syndrome). There has been a sense of urgency in transitioning into the multiple changes that have come at mid life.

**Nursing Interventions:** Assess needs and encourage verbalization of concerns. Provide essential teaching based on how she best learns. Encourage independence and self care as much as possible. Explore relation of illness/disease to body image and career. Provide decision – making opportunities related to care.

### Geriatric Adult

It’s hard to believe that the very busy years have gone by so quickly! Susie has begun to once again redefine her role in life. Life moves on at a slower pace these days. Retirement has been well planned for, allowing leisure activities to begin to replace the demands of a hectic career. Though reasonably healthy, Susie finds herself tiring more easily, hearing and visual acuity are diminishing, and her joints have become a little stiffer. Cognitively Susie doesn’t like to admit it, but she has noticed a decline in her short-term memory and adaptability to changes.

**Psychosocially:** Susie remains strong in her determination to cope with the underlying sense of loss that has occurred through the death of her spouse and her own diminishing physical and mental capabilities. She continues to seek new ways to find meaning to life. Her greatest fear, like most elderly adults is that of becoming dependent on others. She remains independent and uses some of her leisure time to develop new roles in her life. These include volunteering at the local hospital and especially spending time with her grandchildren. They are always so eager to visit, and she loves to bake cookies and do some of those things that their mommy is too busy for. Friends have helped to lessen the loss

she still feels over her husband’s death. Now there is awareness of her own mortality. She finds comfort in “remembering” the events that have occurred throughout life.

**Nursing Interventions:** As Susie ages, she has the potential to decline in health status in terms of wellness. Therefore, it is important to carefully assess her needs. A multidisciplinary approach to caring should include assessment of physical, mental, and social health, as well as the availability of support systems, economic status, and functional ability. Assistance with daily activities, as needed, will help to promote autonomy and a sense of well being. Seek opportunities to maximize her potential and maintain a positive attitude. Be sure to provide a safe environment, adequate nutrition and hydration, maintain skin integrity, give emotional support, and assist in maintaining mobility. Susie needs to be involved in decision-making processes and setting goals for planning care.

**General Guidelines for Teaching the Geriatric Adult**

- Look at the person and speak clearly and distinctly at a slightly slower speed
- Involve the significant other in decision-making, treatment plans and teaching sessions as applicable
- Assess the individual’s best method of learning and utilize that method; i.e., video tape, audio tape, brochures or discussion
- Focus lighting directly on objects being used or explained to assist with aging vision
- Utilize return demonstrations on use of equipment, wound care, etc. in order to effectively assess learning and enhance skills
- Adapt equipment and/or technique specific to the functional capability of the person
- Short sessions may be needed depending on the attention span, stage of disease, level of discomfort and/or acceptance of his/her condition
- Plan for home health follow up and additional resources as needed in order to promote ongoing management of care needs

**Age-Related Deficits**

| Age-Related Deficits           | Changes  | Impact   | Healthcare Provider Considerations   |
|--------------------------------|--|--|--|
| <b>Vision</b>                  | Lens thickens and yellow due to fat deposits showing through thin sclera membrane. Less pliable lens, opacities develop  | Less light enters eye. Blurring of images. Sensitivity to glare increases. Impaired ability to see small objects at close range  | Pupils may react more sluggishly to light but should be equal in size. Many disorders may cause asymmetry of pupils, including CNS disorders, diabetes, or drugs   |
| <b>Pupil Diameter</b>          | Decreases  | Adaptation from dark to light is decreased   | Provide adequate lighting for reading. Keep eye glasses within reach and protected from damage or loss   |
| <b>Papillary Accommodation</b> | Slower   | Impaired color vision  |  |
| <b>Retina</b>                  | Fewer cones  |  |  |
| <b>Hearing</b>                 | <ul style="list-style-type: none"> <li>• Less acute. Predisposition to cerumen impaction, especially in men</li> <li>• Recurrent middle ear infections could lead to scar tissues on ear drum</li> </ul> | <ul style="list-style-type: none"> <li>• Conductive hearing loss</li> <li>• Impaired ability to hear high-pitched sounds</li> <li>• Difficulty with speech discrimination</li> </ul> | <ul style="list-style-type: none"> <li>• Hearing problems may be easily disguised and can result in misunderstanding</li> <li>• Patient may respond to questions inappropriately</li> <li>• Speak clearly and use normal tone of voice. Do not shout!</li> <li>• Use eye contact. Address patient by name</li> </ul> |

|                 |  |  |  |
|-----------------|--|--|--|
|                 |  |  | <ul style="list-style-type: none"> <li>• Combination of hearing loss and cognitive impairment may lead to paranoia</li> <li>• Use touch when appropriate</li> </ul>  |
| <b>Mobility</b> | <ul style="list-style-type: none"> <li>• Loss of bone, beginning at 4<sup>th</sup> decade</li> <li>• Weakening of bone</li> <li>• Decreased muscle strength</li> <li>• Slower reaction time</li> <li>• Disease and injury</li> </ul> | <ul style="list-style-type: none"> <li>• Loss of bone mass in long shaft bones, such as femur</li> <li>• Bone less resistant to bending</li> <li>• More susceptible to breakage</li> <li>• Joint stiffness</li> <li>• Pain and swelling</li> <li>• Limited movement</li> </ul> | <ul style="list-style-type: none"> <li>• Alleviate pain and discomfort</li> <li>• Encourage functional ability</li> <li>• May experience activity intolerance</li> <li>• Allow adequate rest time</li> <li>• Promote merits of exercise</li> <li>• Maintain safe environment</li> <li>• Utilize safety measures</li> </ul> |

**Disclaimer:** The information provided in this program is not intended to provide medical or legal advice. Practitioners should seek medical or legal guidance for individual situations.

Appendix 2.0

**Supplemental Resource Information Used in Development of Learning Packet**  
**Understanding the Needs of the Adolescent**

**The psychosocial aspects of the adolescent stage of human development are very clear**

It is the beginning of separation from family and becoming more dependent on one’s peers for support. Extreme sensitivity and perspective about physical appearance often produces anxiety over comparisons to peers. Sexual and self- identity issues often cause stress between parent and adolescent. The selection of friends tends to occur in relation to similar interests, moral values, or social maturity. Increasing awareness of peer groups brings concern as to whether their group is “in” or “out” and overall effect on their reputation.

**With the beginning of puberty marked biological changes take place**

Rapid growth and hormonal changes affect the young person on a daily, often variable basis. Growth rate and development of the reproductive system varies considerably among both genders. Body type and physical appearance cause a combination of fascination and critical appraisal during this period.

**Cognitive changes**

The development of operational thought involves thinking about possibilities and comparing reality with what might be or could never occur. Teenagers become extremely introspective and self- absorbed while beginning to challenge everything. They constantly discard old attitudes and become more creative thinkers. Improved cognitive abilities that develop during adolescence help in decisions regarding vocational choices, based on self appraisal and valid career options.

**Culture phenomenon of adolescence**

We separate adolescents from younger children and from the major interactions with the rest of society for many hours every day – age segregation. There is a prolonging of dependence since in most cases the available jobs are not financially rewarding or providing opportunity to fully utilize capabilities. Because of the complexity of Western Society, adolescents need a prolonged period in order to fit into adult roles.

### **Effective interactions to achieve goals of care and instruction**

Utilize teaching methods based on the learning needs and readiness – return demonstrations, video or audio tapes, literature. Involve the adolescent in decision-making processes. Present explanations in a logical manner. Approach all areas of care and conversation with respect, dignity, and privacy. Encourage verbalization regarding fears, needs, questions, desires. Encourage family and/or significant others in giving emotional support. Establish clear goals and expectations with the adolescent in planning care.

### **Understanding the Needs of Early Adulthood**

Definitions of maturity vary from culture to culture. Some cultures prepare teens to assume full adult responsibilities and consider that adulthood is reached as soon as the individual is able to be self sufficient. Others prefer that they live at home until college as part of a continuing transition to full adult responsibilities. It is important to respect and consider cultural/ethnic and family values of the young adult.

Various studies have been done in order to determine factors affecting success as an adult. These factors include the development of effective coping styles, development of loving intimate relationships and the movement toward autonomy, discipline, and perseverance.

Cognitive powers of creativity, judgment, and reasoning continue to expand, although some narrow skills like rote memory may begin to decline. The continued development of judgment and reasoning increases the ability to see the complexities, contradictions, and considerations in decision making processes.

Young adults generally enjoy a peak in physical strength, stamina, and energy. They are usually in good health and experience few acute illnesses. They are also in their physiological prime. This is optimal child-bearing age, and hormones are raging.

College, career choices, and the ability to form meaningful and lasting relationships are some of the major concerns during the transition from adolescence into early adult to adult stages of life. Family expansion occurs, reaching out from the family nucleus to that of community (school, church, state, and world). Personal identity is affected by choices regarding career and mate. Adjustment to conflict between independence and intimacy is common. How well conflict resolution takes place determines the level of intimacy and maturity.

### **Understanding the Needs of Middle Adulthood**

Middle age is a kind of bridge between two generations. There is an awareness of being separate not only from youngsters and young adults, but also from the retired and elderly. The awareness of middle age varies and may occur suddenly or be experienced gradually and gently. Some cues are social and positional. Other cues may be physical and biological. Psychological cues include status of career, issues of continuity versus change, and adjustments to children leaving home (empty nest syndrome).

Adapting to the dualism of middle age. While it is the prime of life, there is an awareness of mortality and a sense that time is running out. The motto may be, “Whatever we do must be done now.” How one determines the “sense of urgency” is evidenced by one of gradual transition versus mid life crisis. A sense of continuing fulfillment can result from the development of new goals and challenges.

The adjustment to the many changes is influenced by coping capabilities to multiple changes, the timing of and the types of specific events that occur, mastering developmental tasks, such as the acceptance of biological changes, reassessment of primary relationships as roles evolve, and accomplishing redefined work expectations.

Cognitive continuity and change. With age there is some decline in cognitive functioning, such as decreased short term memory, decreased synthesis of new information, as well as a decline in skills requiring speed. Verbal reasoning, comprehension, and the ability to utilize learning experiences tends to increase in middle age.

### **Understanding the Elderly Adult**

Generalization toward the elderly has become impossible since this group of aging adults is more physically and socially diverse than perhaps any other age group. Chronological age is measurable and is associated with retirement,

social security, or pension eligibility, etc. Functional age relies on physical capabilities and observed behaviors. Priorities and values may have changed in response to life experiences. Pursuit of second careers, hobbies, community or leisure activities are variable economic factors which additionally impact on the diversity of lifestyle.

Care of the elderly is learned as part of the cultural system. While many of today's senior citizens have prepared for their retirement, and on the average are more active, there are still many needs that call for serious social concern. Communities are developing numerous services in order to better meet the needs of the elderly – transportation, meal services, mobile libraries, senior centers, etc. It is important to provide information as to the availability of resources. We are growing in our awareness that the elder adult is a vital resource within the social structure.

A major factor of an elder person's life is that of loss: of family members and friends, functional and physical reserves, memory changes, and in the ability to earn income. It is crucial to assess the elderly person's perception of loss and coping ability. Increased social isolation may occur with advancing age. Successful aging means coping and adapting to changes in functional capabilities, economic status, and social role. Adjustment to changes in life requires the finding of meaning in life, redefining roles and relationships, maintaining satisfactory living arrangements, and autonomy.

Fear of dependence is almost universal among elder adults. This fear far outweighs the fear of death. Many make medical decisions based on the risk of becoming dependent or having to go to a nursing home. Refusal of treatment may occur rather than burden family with the high cost of care. Assistance with activities of daily living can minimize dependency and promote autonomy.

Goals of approach to wellness in the elderly adult population. Take opportunities to maximize potentials and provide comfort. Involve the client in wellness goals and decision processes. Promote positive attitudes regarding health and activities of daily living. A multidisciplinary approach should be used to assess needs, identify and utilize available resources to promote the continuum of care.

**Infancy: Birth – 1 Year**

| Physical  | Motor Sensory Adaptation | Cognitive | Psychosocial | Interventions |       |       |        |       |       |  |  |   |  |
|---|--------------------------|-----------|--------------|---------------|-------|-------|--------|-------|-------|--|--|---|--|
| <ul style="list-style-type: none"> <li>• Gains weight/height rapidly (doubles weight/length by 50% in 6 months)</li> <li>• Starts as a nose breather (2-4 months)</li> <li>• Towards the end of the first year:                             <ul style="list-style-type: none"> <li>➢ primitive reflexes diminish</li> <li>➢ fontanel closes, anterior 12-18 months; posterior, at 2 months</li> <li>➢ teething starts; 2 year, 8 teeth</li> </ul> </li> <li>• regular bladder and bowel pattern develops</li> <li>• Temperature: auxiliary= 97.9 – 98 degrees F</li> <li>• HR: apical = 120 – 140 beats/min</li> <li>• Respirations: 30 – 60 breaths/min</li> <li>• BP:                             <table style="margin-left: 20px; border-collapse: collapse;"> <tr> <td style="padding-right: 10px;">Weight</td> <td style="padding-right: 10px;">Systolic</td> <td>Diastolic</td> </tr> <tr> <td style="padding-right: 10px;">3kg</td> <td style="padding-right: 10px;">60-80</td> <td>35-55</td> </tr> <tr> <td style="padding-right: 10px;">2-3 kg</td> <td style="padding-right: 10px;">50-70</td> <td>27-45</td> </tr> </table> </li> <li>• 1-2 kg    40-60    20-35</li> </ul> | Weight                   | Systolic  | Diastolic    | 3kg           | 60-80 | 35-55 | 2-3 kg | 50-70 | 27-45 | <ul style="list-style-type: none"> <li>• Responds to light and sound</li> <li>• Towards the middle of the year progresses to raising head, turning, rolling over, and bringing hand to mouth</li> <li>• Towards the end of the year progresses to crawling, standing alone, walking with assistance, and grasping strongly</li> <li>• Repeats actions to fine tune learning</li> <li>• Begins to develop a sense of object permanence</li> <li>• Reactions move from reflexive to intentional</li> </ul> | <ul style="list-style-type: none"> <li>• Manipulates objects in the environment</li> <li>• Recognizes bright objects and progresses to recognizing familiar objects and persons</li> <li>• Towards the end of the year, speaks 2 words, mimics sounds</li> <li>• Obeys simple commands and understands meaning of several words</li> <li>• Seeks novel experiences</li> <li>• Learns by imitation</li> </ul> | <ul style="list-style-type: none"> <li>• Significant persons are the parents or primary caregivers</li> <li>• Develops a sense of trust and security if needs are met consistently and with a degree of predictability</li> <li>• Fears unfamiliar situations</li> <li>• Smiles, repeats actions that elicit response from others, i.e, waves good-bye, plays pat-a-cake</li> <li>• 7-8 months: fear of strangers</li> <li>• 9-10 months: separation anxiety</li> </ul> | <ul style="list-style-type: none"> <li>• Involve parents in procedures</li> <li>• Keep parent in infant’s line of vision</li> <li>• Limit the number of strangers caring for the infant</li> <li>• Give familiar objects to the infant</li> <li>• Cuddle and hug the infant</li> <li>• Use distraction (pacifier, bottle, etc.)</li> <li>• Keep crib side rails up at all times</li> <li>• Make sure toys do not have removable parts and check for safety approval</li> <li>• Have bulb syringe available in case there is a need for suctioning</li> <li>• Ask parents about immunization history</li> <li>• Encourage parents to assist in care</li> <li>• If teaching procedures, provide opportunities for parents/caregiver to return demonstrate</li> <li>• Allow time for parents/caregiver to ask questions</li> <li>• Assess for and provide supports in managing pain. Use oral route, if possible</li> </ul> |
| Weight  | Systolic                 | Diastolic |              |               |       |       |        |       |       |  |  |   |  |
| 3kg   | 60-80                    | 35-55     |              |               |       |       |        |       |       |  |  |   |  |
| 2-3 kg  | 50-70                    | 27-45     |              |               |       |       |        |       |       |  |  |   |  |

**Toddler: 1 – 3 Years**

| Physical  | Motor Sensory Adaptation  | Cognitive  | Psychosocial   | Interventions  |
|---|---|--|--|--|
| <ul style="list-style-type: none"> <li>• Learning bladder and bowel control</li> <li>• Abdomen protrudes</li> <li>• Decreased appetite and growth</li> <li>• Temporary teeth erupt; all 20 deciduous teeth by 2 ½ -3 yrs</li> <li>• Physiologic systems mature</li> <li>• Grows 1 ½ – 2 inches and 4-6 lbs yearly</li> <li>• Elimination: 18 months bowel control, 2 – 3 yrs</li> <li>• daytime bladder control</li> <li>• Temperature = 99° F ± 1°</li> <li>• Pulse = 105 ± 35</li> <li>• Respirations = 20 – 35/min.</li> <li>• BP = 80 – 100 mm Hg systolic / 60 – 64 mm Hg diastolic</li> </ul> | <ul style="list-style-type: none"> <li>• Responds better to visual rather than spoken cues</li> <li>• Walks independently, progressing to running, jumping, and climbing</li> <li>• Feeds self</li> <li>• Loves to experiment</li> <li>• Goal directed behavior</li> <li>• Fully formed sense of object permanence</li> </ul> | <ul style="list-style-type: none"> <li>• Develops concepts by use of language</li> <li>• Sees things only from own point of view (egocentric)</li> <li>• Able to group similar items</li> <li>• Constructs 3 – 4 word sentences</li> <li>• Has short attention span</li> <li>• Beginning memory</li> <li>• Ties words to actions, can understand simple directions and requests</li> </ul> | <ul style="list-style-type: none"> <li>• Significant persons are parents</li> <li>• Discovers ability to explore and manipulate environment</li> <li>• Asserts independence (autonomy) and develops a sense of will, has temper tantrums</li> <li>• Understands ownership (“mine”)</li> <li>• Attached to security objects and toys</li> <li>• Knows own gender and differences of gender</li> <li>• Able to put toys away</li> <li>• Plays simple games, enjoys being read to, plays alone</li> </ul> | <ul style="list-style-type: none"> <li>• Use firm, direct approach</li> <li>• Use distraction techniques</li> <li>• Give one direction at a time</li> <li>• Prepare child shortly before a procedure</li> <li>• Allow choices when possible</li> <li>• Emphasize those aspects that require the child’s cooperation</li> <li>• Provide favorite, age specific foods</li> <li>• Allow for rest periods after eating based on home routines to the degree possible</li> <li>• Skills may regress due to illness/hospitalization</li> <li>• Emphasize the importance of mother (parent) staying with child at night</li> <li>• Follow home routines if possible</li> <li>• Set limits</li> <li>• Give permission to express feelings</li> <li>• Maintains safety at all times</li> <li>• Use familiar terms specific to individual child</li> <li>• Show equipment and allow child to “play” with it to decrease fears</li> </ul> |

**Pre-School: 3 – 6 Years**

| Physical   | Motor Sensory Adaptation   | Cognitive  | Psychosocial  | Interventions  |
|--|--|--|---|--|
| <ul style="list-style-type: none"> <li>• Gains weight and grows in height 2 – 2 ½ inches a year</li> <li>• Becomes thinner and taller</li> <li>• Temperature = 98.6° ± 1°</li> <li>• Pulse = 80 – 100/min</li> <li>• Respirations = 30/min ± 5</li> <li>• BP = 90/60 mm Hg ± 15 mm Hg</li> </ul> | <ul style="list-style-type: none"> <li>• Skips and hops</li> <li>• Roller skates, jumps rope</li> <li>• Dresses/undresses independently</li> <li>• Prints first name</li> <li>• Draws person with 6 major parts</li> <li>• Throws and catches a ball</li> <li>• (5 yrs)</li> </ul> | <ul style="list-style-type: none"> <li>• Major cognitive skill is conversation</li> <li>• Understands that the amount of something is the same regardless of shape or number of pieces</li> <li>• Able to classify objects, enjoys doing puzzles</li> <li>• Understands numbers, can count</li> <li>• Constructs sentences, questions things, “why?”</li> <li>• Knows own phone number and address</li> <li>• Attention span is short</li> <li>• Ritualistic</li> <li>• Magical thinking</li> <li>• Imitation is common</li> </ul> | <ul style="list-style-type: none"> <li>• Significant persons are parents, siblings, peers</li> <li>• Increasing independence and beginning to assert self, likes to boast and tattle</li> <li>• Masters new tasks and acquires new skills</li> <li>• Behavior is modified by rewards and punishment</li> <li>• Plays cooperatively, able to live by rules, capable of sharing</li> <li>• May be physically aggressive</li> <li>• Learns appropriate social manners</li> <li>• 5 yr. old: uses sentences, knows colors, numbers, alphabet</li> </ul> | <ul style="list-style-type: none"> <li>• Explain procedures, unfamiliar objects</li> <li>• Demonstrate use of equipment</li> <li>• Encourage child to verbalize</li> <li>• Use doll/puppets for explanations when performing procedures</li> <li>• Involve the child whenever possible</li> <li>• Maintain safety at all times</li> <li>• Provides rest periods</li> <li>• Assess and manage pain                             <ul style="list-style-type: none"> <li>➢ offer distractions, e.g.,</li> <li>➢ count to 20</li> <li>➢ allow to choose the site for an injection</li> <li>➢ offer a badge of courage (stickers, etc.)</li> </ul> </li> <li>• Focus on one thing at a time</li> <li>• Give permission to express feelings</li> <li>• Praise for good behavior</li> <li>• Limit movement restrictions</li> <li>• Use games and praise when teaching child</li> </ul> |

**School Age: 6 – 11 Years**

| Physical   | Motor Sensory Adaptation   | Cognitive  | Psychosocial  | Interventions   |
|--|--|--|---|---|
| <ul style="list-style-type: none"> <li>• Permanent teeth erupt</li> <li>• Starts pubescent changes</li> <li>• Growth is slow and regular</li> <li>• May experience “growing” pains because of stretching of muscles with the growth of long bones</li> <li>• May experience fatigue</li> <li>• Temperature = 98.6°F ± 1°</li> <li>• Pulse = 60 – 70/min</li> <li>• Respirations = 18 – 21/min</li> <li>• BP = 94 – 112mm Hg systolic and 56 – 60mm Hg diastolic</li> </ul> | <ul style="list-style-type: none"> <li>• Uses knife, common utensils, and tools</li> <li>• Cares for pets</li> <li>• Draws, paints</li> <li>• Makes useful articles</li> <li>• Assists in household chores</li> <li>• Likes quiet as well as active games</li> <li>• 8 years old: awkward, nervous energy</li> </ul> | <ul style="list-style-type: none"> <li>• Capable of logical operation with concrete things</li> <li>• Comprehends and can tell time</li> <li>• Starts to think abstractly and to reason, can handle and classify problems, able to test hypotheses</li> <li>• Proud of school accomplishments</li> <li>• Enjoys reading</li> <li>• Starts to view things from different perspectives</li> <li>• Increased attention span and cognitive skills</li> <li>• Functions in the present</li> <li>• Rule bound</li> </ul> | <ul style="list-style-type: none"> <li>• Significant persons are peers, family and teachers</li> <li>• Prefers friends to family</li> <li>• Works hard to be successful in what he/she does</li> <li>• Belonging and gaining approval of peer group is important</li> <li>• Behavior is controlled by expectations, regulations, and anticipation of praise or blame</li> <li>• Intention is considered when judging behavior</li> <li>• Explores neighborhood</li> <li>• Uses phone</li> <li>• Plays games with rules</li> <li>• Tries to be adult-like</li> </ul> | <ul style="list-style-type: none"> <li>• Clearly explain procedures in advance using correct terminology</li> <li>• Take more time to prepare child</li> <li>• Explain equipment</li> <li>• Allow child to have some control</li> <li>• Provide privacy</li> <li>• Assess and manage pain:                             <ul style="list-style-type: none"> <li>➢ may understand use of PCA</li> <li>➢ parent controlled analgesia may be appropriate if unable to understand PCA</li> <li>➢ medicate to prevent pain, e.g., around-the-clock</li> </ul> </li> <li>• Assess response after and prior to next dose</li> <li>• Promote independence</li> <li>• Continue school</li> <li>• Clearly define and reinforce behavior limits</li> <li>• Use visual aids; be concrete and specific</li> <li>• Relate to child’s abilities</li> <li>• Safety/family</li> <li>• Major fear is loss of control</li> </ul> |

**Adolescence: 12 – 18 Years**

| Physical  | Motor Sensory Adaptation   | Cognitive   | Psychosocial  | Interventions  |
|---|--|---|---|--|
| <ul style="list-style-type: none"> <li>• Rapid growth of skeletal size, muscle mass, adipose tissue and skin</li> <li>• Maturation of the reproductive system: development of primary and secondary sexual characteristics</li> <li>• Onset of menarche in girls and nocturnal emissions in boys</li> <li>• Vital signs approximate those of the adult</li> </ul> | <ul style="list-style-type: none"> <li>• Awkward in gross motor activity</li> <li>• Easily fatigued</li> <li>• Fine motor skills are improving</li> <li>• Early adolescence: may need more rest and sleep</li> </ul> | <ul style="list-style-type: none"> <li>• Increased ability to use abstract thought and logic</li> <li>• Able to handle hypothetical situations or thought</li> <li>• Ability to use introspection</li> <li>• Develops more internal growth of self-esteem</li> <li>• Beginning of development of occupational identity (what I want to be)</li> <li>• Still needs to know what to expect</li> </ul> | <ul style="list-style-type: none"> <li>• Interested and confused by own development</li> <li>• Often critical of own features and concerned with physical appearance</li> <li>• “Chum” and belonging to peer group are important and valued: may criticize parents</li> <li>• Interested in the opposite sex; achieving female/male social role</li> <li>• “Why” is popular</li> <li>• Accepts criticism or advice reluctantly</li> <li>• Longs for independence but also desires dependence</li> <li>• Achieves new and more mature relations</li> <li>• Develops physical activities that are socially determined</li> <li>• Identity is threatened by hospitalization as adolescents are concerned about bodily changes and appearances</li> </ul> | <ul style="list-style-type: none"> <li>• Supplement explanations with rationale</li> <li>• Encourage questions regarding fears</li> <li>• Provide privacy</li> <li>• Involve in planning and decision-making</li> <li>• Allow adolescent to maintain control</li> <li>• Provide essential teaching based on how the individual learns best</li> <li>• Provide information on pain control methods, assessment scale, schedule for pain management, need to ask for pain medication as soon as pain begins, need to provide information on degree of pain relief, types of pain medications, and methods for pain reduction</li> <li>• Do not talk about the individual in front of the individual</li> <li>• Present explanations in a logical manner; use visual aids; provide other materials for review</li> <li>• Family safety</li> </ul> |

**Early Adulthood: 19 – 45 Years**

| Physical   | Motor Sensory Adaptation   | Cognitive  | Psychosocial  | Interventions   |
|--|--|--|---|---|
| <ul style="list-style-type: none"> <li>• Growth of skeletal systems continues until age 30</li> <li>• Skin begins to lose moisture</li> <li>• Muscular efficiency is at its peak between 20 - 30 years</li> <li>• GI system decreases secretions after age 30</li> </ul> | <ul style="list-style-type: none"> <li>• Visual changes in accommodation and convergence</li> <li>• Some loss in hearing, especially high tones</li> </ul> | <ul style="list-style-type: none"> <li>• Mental abilities reach their peak during the twenties (reasoning, creative imagination, information recall, and verbal skills)</li> </ul> | <ul style="list-style-type: none"> <li>• Searching for and finding a place for self in society</li> <li>• Initiating a career, finding a mate, developing loving relationships, marriage, establishing a family, parenting</li> <li>• Begins to express concerns for health</li> <li>• Achievement oriented; working up the career ladder</li> <li>• Moves from dependency to responsibility</li> <li>• Responsible for children and aging parents</li> </ul> | <ul style="list-style-type: none"> <li>• Involve individual/significant other in plan of care</li> <li>• Explore impact of hospitalization/illness to work/job, family, children</li> <li>• Watch for body language as a cue for feelings</li> <li>• Allow for as much decision-making as possible</li> <li>• Assess for potential stresses related to multiple roles of the young adult</li> <li>• Assess and manage pain based on patient needs and response                             <ul style="list-style-type: none"> <li>➢ Use a preventative approach</li> <li>➢ Titrate to effect and monitor response</li> <li>➢ PCA</li> </ul> </li> <li>• Provide information on pain control methods, assessment scale, schedule for pain management, need to ask for pain medication as soon as pain begins, providing information of degree of pain relief, types of pain medications, and methods</li> <li>• Provide information on pain control methods, assessment scale, schedule for pain management, need to ask for pain medication as soon as pain begins, providing information of degree of pain relief, types of pain medications, and methods</li> <li>• Provide essential teaching based on how the individual learns best</li> </ul> |

**Middle Adult: 46 – 59 Years**

| Physical  | Motor Sensory Adaptation   | Cognitive  | Psychosocial   | Interventions  |
|---|--|--|--|--|
| <p>Bone mass begins to decrease</p> <ul style="list-style-type: none"> <li>• Loss of skeletal height; calcium loss especially after menopause</li> <li>• Decreased muscle strength and mass if not used; endurance declines</li> <li>• Loss of skin elasticity, dry skin, increased appearance of wrinkles</li> <li>• Decreased renal functioning, metabolic rate, heat/cold tolerance, prone to infection</li> <li>• Receding hair line in males, more facial hair in females</li> </ul> | <p>Slowing of reflexes</p> <ul style="list-style-type: none"> <li>• Muscle activity may increase or decrease</li> <li>• Visual changes especially farsightedness</li> <li>• Noticeable loss of hearing and taste</li> <li>• Muscles and joints respond more slowly</li> <li>• Decreased balance and coordination</li> <li>• More prolonged response to stress</li> </ul> | <ul style="list-style-type: none"> <li>• Mood swings</li> <li>• Decreased short term memory or recall</li> <li>• Re-evaluation of current lifestyle and value system</li> <li>• Synthesis of new information is decreased</li> <li>• Decrease in mental performance speed</li> </ul> | <ul style="list-style-type: none"> <li>• Future oriented or self absorbed</li> <li>• May experience empty nest syndrome expressed positively or negatively</li> <li>• Working way up career ladder</li> <li>• Adjustment to changes in body image</li> <li>• Mid-life crisis</li> <li>• Recognition of limitations</li> <li>• Adjustment to possibility of retirement and lifestyle modifications</li> <li>• Measuring accomplishment against goals</li> </ul> | <ul style="list-style-type: none"> <li>• Allow choices if possible</li> <li>• Explore relation of illness/disease to body image and career</li> <li>• Provide decision-making opportunities related to care</li> <li>• Encourage as much self care as possible</li> <li>• Provide information on pain control methods, assessment scale, schedule for pain management, need to ask for pain medication as soon as pain begins, providing information of degree of pain relief, types of pain medications, and methods</li> <li>• Provide essential teaching based on how the individual learns best</li> </ul> |

**Late Adult (Elderly): 60 – 79 Years**

| Physical   | Motor Sensory Adaptation   | Cognitive  | Psychosocial   | Interventions  |
|--|--|--|--|--|
| <p>Decreased tolerance to heat/cold</p> <ul style="list-style-type: none"> <li>• Decreased peripheral circulation</li> <li>• Declining cardiac/renal function</li> <li>• Decreased response to stress and sensory stimuli</li> <li>• Atrophy of reproductive organs</li> <li>• Loss of teeth leading to changes in food intake</li> <li>• More skeletal changes</li> </ul> | <ul style="list-style-type: none"> <li>• Decreased visual acuity</li> <li>• Hearing loss</li> <li>• Decreased sensitivity of taste buds and smell</li> <li>• Decreased tolerance to pain</li> <li>• Hesitant to respond; skills declining</li> </ul> | <ul style="list-style-type: none"> <li>• Decline depends upon earlier cognitive abilities, general health and involvement in society</li> <li>• Sharing wisdom with others</li> <li>• Decrease in memory, slowing of mental functions</li> </ul> | <ul style="list-style-type: none"> <li>• Retirement</li> <li>• Death of spouse and friends; acceptance of death</li> <li>• Adapting to change of social role</li> <li>• Developing supportive relationships</li> <li>• Pursuing second career, interest, hobbies, community activities, leisure activities</li> <li>• Coming to terms with accomplishments</li> <li>• Children leave home; reestablishes as couple; grandparenthood</li> <li>• Concern for health increases</li> </ul> | <ul style="list-style-type: none"> <li>• Explore individual's support system</li> <li>• Explore related existing conditions</li> <li>• Involve family with care</li> <li>• Provide adequate nutrition</li> <li>• Keep environment safe, e.g., SR I, bed I, wheels locked</li> <li>• Turn/assist every 2 hrs</li> <li>• Assess skin integrity frequently</li> <li>• Monitor bowel elimination</li> <li>• Every 24 hrs</li> <li>• Continue with pain assessment &amp; management</li> <li>• Narcotics with long half-life may cause problems with side effects, e.g., confusion, constipation</li> <li>• Use adjuvant analgesics with caution, increases side effects</li> <li>• Apply lotion to skin immediately after bathing</li> <li>• Be aware of possible need for a warmer environment (room temperature, need for an extra blanket)</li> </ul> |

**Late Adult (Old): 80 + Years**

| Physical  | Motor Sensory Adaptation   | Cognitive  | Psychosocial   | Interventions  |
|---|--|--|--|--|
| <ul style="list-style-type: none"> <li>• Decreased oil in skin; decreased perspiration</li> <li>• Increased wrinkles</li> <li>• Loss of fat layers on limbs and face</li> <li>• Bones become more prominent, stiff joints</li> <li>• Changes in skin pigmentation</li> <li>• Thinning of hair</li> <li>• Shrinkage in intervertebral disc</li> <li>• Increase susceptibility to infection</li> <li>• Decreased G.I. absorption rate, decreased cardiac output, decreased airway capacity</li> <li>• Male – prostatic hypertrophy</li> </ul> | <ul style="list-style-type: none"> <li>• Decreased mobility</li> <li>• Stronger stimulation is needed for all senses to experience sensation</li> <li>• Decreased ability to respond to stimuli</li> <li>• Decreased sense of balance, depth perception, sensitivity to light, touch, and vibration</li> <li>• Paresthesia</li> <li>• Less deep sleep, easily aroused</li> <li>• Development of cataracts is common</li> </ul> | <ul style="list-style-type: none"> <li>• Decline depends upon earlier cognitive abilities, general health, and involvement in society</li> <li>• Motivation is an important component of performance</li> <li>• Slower in learning</li> <li>• Drop in performance</li> </ul> | <ul style="list-style-type: none"> <li>• Death of spouse/friends</li> <li>• Introspection and life review</li> <li>• Acceptance of death</li> <li>• Establish a physical living arrangement</li> <li>• Decreased authority and mobility</li> </ul> | <ul style="list-style-type: none"> <li>• Provide a safe environment</li> <li>• Provide adequate fluids</li> <li>• May need to divide sleep periods between day and night</li> <li>• Assess skin integrity frequently</li> <li>• Use tape sparingly on fragile skin</li> <li>• Remove tape/band aids carefully</li> <li>• Handle body more with the palms of your hands rather than with fingers</li> <li>• May need smaller, more frequent meals</li> <li>• Provide frequent perineal care; keep clean and dry. Use barrier cream if appropriate</li> <li>• Reposition every 2 hours without fail</li> <li>• Monitor bowel elimination every 24 hours</li> <li>• Monitor and assess for pain every 2-4 hours. Follow previous pain assessment and management guidelines</li> <li>• Encourage self-care</li> <li>• Provide opportunities for decision making related to care</li> <li>• Assess resources for discharge</li> </ul> |

## References

Brummel – Smith, K. (1997) Human Development and Aging. Taylor, B. (Ed.) Family Medicine, Principles and Practice. 5th Edition, Springer.

Craig, G. (1986) Human Development. Englewood Cliffs: Prentice – Hall.

Erikson, Erik H. The Life Cycle Completed. WW Norton & Co., (1982).

Galansky, Ellen. The Six Stages of Parenthood. Addison-Wesley Publishing Co., Inc., MA (1987).

Inside the Joint Commission: Independent Guidance for Top Survey Scores. Rockville, MD (February 12, 1996).

Management of Human Resources: The Organizational Approach to Education, Training, and the Measurement of Current Competence. The Joint Commission on Accreditation of Healthcare Organizations (1995).

Patient Education Management. American Health Consultants (1993) Atlanta, GA; Vol 2, No. 10 .

Seidel, J., & Henderson, D. (1997) Caring for Children – Approach to the Pediatric Patient in the Emergency Department. R. M. Barkin (ED) Pediatric Emergency Medicine. (pp. 1-7) St. Louis, Mosby, Second Edition.

Miami Geriatric Education Center (1994) Intensive Geriatric Training Course.

Whaley, L. and Wong, D. (1991) Nursing Care of Infants and Children. St. Louis, Fourth Edition.



## Age-Specific Education Test

1. TRUE or FALSE  
Some of the factors which influence growth and development include: genetics, environmental, socioeconomic and health & wellness/nutrition.  
A. True  
B. False
2. TRUE or FALSE  
Readiness or preparedness refers to the point when the individual has matured sufficiently to learn a particular behavior.  
A. True  
B. False
3. TRUE or FALSE  
Two common fears that parents may experience during the hospitalization of a child are pain and/or loss and fear of separation.  
A. True  
B. False
4. Which of the following is incorrect regarding principles which can facilitate treatment and care of children?  
A. Do not mislead if it will be painful.  
B. Attitudes are expressed both verbally and nonverbally towards children.  
C. Separating the child and parent is ALWAYS best.  
D. Assign the same caregivers when possible.
5. TRUE or FALSE  
Some of the ways to involve siblings in the hospitalization process is to include the use of video or audio tapes, photos, phone calls, or a brief visit with the child if possible.  
A. True  
B. False
6. TRUE or FALSE  
It will always scare children if they “visit” the procedure room or hospital unit ahead of time. Doing so is NEVER a good idea.  
A. True  
B. False



7. Which of the following statements are accurate when teaching children?
  - A. By using a doll to “change” a dressing, it may help the child better understand what to expect.
  - B. Short frequent teaching sessions provide the best learning.
  - C. Explain what the child will most likely hear, feel, taste or smell.
  - D. All of the above.
  
8. TRUE or FALSE  
Two safety measures that are essential during infancy are leaving the side rails down and keeping needles at the bedside.
  - A. True
  - B. False
  
9. TRUE or FALSE  
Infants may experience separation anxiety or fear of strangers.
  - A. True
  - B. False
  
10. TRUE or FALSE  
Some common theories of child development include Trust vs. Mistrust during the early stages of growth.
  - A. True
  - B. False
  
11. Which of the following is correct regarding the care of adolescents?
  - A. Assess learning needs and use most effective methods.
  - B. Involve the adolescents in decision-making processes and setting goals when possible.
  - C. Be sensitive to the need and the desire for independence.
  - D. All of the above.
  
12. TRUE or FALSE  
Cognitive changes in the adolescent may include a concern with self image and introspection.
  - A. True
  - B. False
  
13. TRUE or FALSE  
With the adolescent it is important to approach all areas of care and conversation with respect, dignity, and privacy.
  - A. True
  - B. False



14. Choose the appropriate statement(s) which may be observed in the pre-school age child.
- A. She likes to boast and tattle.
  - B. Involve Susie in decisions and choices when appropriate, such as choosing site for injection (right or left).
  - C. Her cognitive skills usually include conversation.
  - D. All of the above.
15. TRUE or FALSE  
At age 10, Susie is developing skills to think abstractly and reason.
- A. True
  - B. False
16. TRUE or FALSE  
Young adults generally enjoy poor health and lack physical strength and stamina. Any complaints they express do not need to be taken seriously.
- A. True
  - B. False
17. TRUE or FALSE  
The middle-aged adult may have added responsibilities toward aging parents.
- A. True
  - B. False
18. For the middle-aged adult which of the following are correct?
- A. Adjustments to the many changes include acceptance of biological changes.
  - B. This stage is sometimes known as the "take charge generation."
  - C. Mood swings may occur due to menopausal hormone changes.
  - D. All of the above.
19. Identify the statement(s) that is false regarding the Geriatric Adult.
- A. There is a sense of loss and an awareness of own mortality.
  - B. Fears of becoming overly dependent or a burden are NOT common concerns.
  - C. Assistance with daily activities is often indicated.
  - D. Adapting to changes is difficult.



20. TRUE or FALSE

Successful aging may include adapting to changes in functional capabilities, economic status, and social role.

- A. True
- B. False

21. It is important to do the following when teaching/communicating with the elderly:

- A. Speak clearly and distinctly.
- B. Focus lighting directly on objects being used.
- C. Adapt equipment or techniques to the functional capability of the person.
- D. All of the above.

22. TRUE or FALSE

A decline in overall health status and the sense of well being is unusual in the geriatric patient.

- A. True
- B. False

23. TRUE or FALSE

Short sessions may be necessary with some elderly and influenced by attention span, level of discomfort or acceptance of his/her condition.

- A. True
- B. False

24. Goals of wellness in the elderly include:

- A. Involve the client in the development of goals and decision processes.
- B. Take opportunities to maximize potentials.
- C. Promote positive attitudes toward health and activities of daily living.
- D. All of the above.

25. Guidelines for teaching the elderly include all of the following EXCEPT:

- A. Always speak loudly.
- B. Short sessions are often most beneficial.
- C. Assess the individual's best method of learning.

### **Case Study #1: Infancy**

Susie, a one year old infant, is admitted with a diagnosis of severe gastroenteritis. Her history includes vomiting and diarrhea in excess of 20 hours duration. The emergency room nurse started an IV for hydration, and she was placed on NPO status.



26. Susie will benefit if her parents are encouraged to visit and stay with her when possible and participate in her care.
- A. True
  - B. False
27. It is important that the nurse explain to Susie's parents what to expect when indicated.
- A. True
  - B. False

**Case Study #2: 3 Year Old**

Susie was playing outside in the yard when she fell and broke her wrist. Mom is very upset and has brought her to the emergency room to be examined and treated.

28. At this particular developmental stage, it is expected that Susie would be actively running, jumping and climbing.
- A. True
  - B. False
29. It would be unusual for a child of this age to ever have temper tantrums or show fear.
- A. True
  - B. False
30. It may be helpful for the nurse to use a doll to show Susie how they are going to "fix" her broken bone and to ask her how she thinks the doll feels.
- A. True
  - B. False

**Case Study #3: Pre-School**

Danny, a five year old friend of Susie's, fell and cut his arm while playing. It was a large enough cut that the bleeding did not stop with pressure that was applied. He was taken to the emergency room for further treatment.

31. A child of this age may become easily distracted and have a limited attention span.
- A. True
  - B. False
32. A child this age will typically have a very long attention span and will easily comprehend complex directions.
- A. True
  - B. False



**Case Study #4: Adolescent**

Susie, at age sixteen, seems to be struggling over multiple occurrences of mood changes and what her parents feels is “disrespectful” behavior lately. When questioned by Mom, Susie offers little explanation. She has been scheduled an appointment with her doctor in order to determine if something may be wrong.

- 33. She has increased fatigued at times and requires more sleep some mornings. These changes are common in many at this stage.
  - A. True
  - B. False
  
- 34. Mom states that Susie “challenges” almost everything and seems to express an opposite opinion on many topics that they try to discuss. Her physician may explain that this behavior is not unusual during adolescence, but that she still needs clearly established guidelines.
  - A. True
  - B. False

**Case Study #5: Early Adult**

Sarah, a co-worker of Susie’s, recently found out that she is pregnant with her third child at age thirty. Susie begins to realize that her “biological clock” is ticking away, and as a result, begins to consider her own stage of life more thoroughly.

- 35. This is a time when it is often hard to balance the demands of family responsibilities and career expectations.
  - A. True
  - B. False
  
- 36. Susie should just forget about identifying her “needs” and goals.
  - A. True
  - B. False

**Case Study #6: Middle Adult**

At age fifty-five, Susie has become aware of multiple changes in her ability to quickly synthesize new information or perform a new skill. In addition, she feels that she is becoming frustrated by “trying to do it now while I can” and the realization that there are limitations in what seems to be ever expanding roles of responsibility. She has made an appointment with a counselor to discuss these concerns.

- 37. It would be very unusual for a woman of this age to feel as Susie does.
  - A. True
  - B. False



38. Successful transition to mid life will be enhanced when the individual takes time to redefine life goals as related to limitations and/or changing roles.
- A. True
  - B. False

**Case Study #7: Geriatrics:**

With the death of Susie's husband and the gradual decline in her health status, she has begun to feel a true "sense of loss" as she evaluates her life. Susie has attended some meetings through a local senior citizen's organization and has heard the following statements.

39. Assistance with daily living needs may help to provide a safer environment and eventually promote a long term increase in autonomy.
- A. True
  - B. False
40. She should remain actively involved in setting goals and decisions regarding her future care, needs and changes.
- A. True
  - B. False