GROWTH AND DEVELOPMENT

A. Normal growth and development progress in a steady, predictable pattern across the life span.
B. When assessing the growth and development of a child or an adult, it is important to consider the characteristics of the developmental stage.
   1. Development progresses in a cephalocaudal (head to tail) manner.
   2. Development progresses from proximal to distal, with a progression from gross to fine motor skills.
C. Psychosocial, cognitive, moral, and spiritual development can be observed to occur in specific patterns as an infant matures.
D. The developmental age of a client is critical to the planning of care in the hospital.
   1. Nurses need to be aware of the major developmental milestones.
   2. Nursing care is planned around the child’s developmental level, not his or her chronologic age.
   3. If an infant displays head lag at 6 months or cannot sit with support at 9 months, this is considered a significant developmental lag and the infant needs to have further developmental/neurologic evaluation (Table 2-1).

**ALERT** Assess developmental stage of client. Evaluate client and/or family achievement of expected developmental level—especially with consideration to the developmental milestones.

**NURSING PRIORITY** General contraindications to receiving an immunization include a moderate to severe illness with or without fever and an anaphylactic reaction to a previously administered immunization or to a substance in the immunization.

F. Talk and read to infant; provide visual and auditory stimulation; toys should stimulate hand-eye coordination, as well as provide sensory stimulation.
G. To prevent bottle tooth decay, do not put infant to bed with a bottle; offer juice in a cup at around 4 to 6 months when infant can put his or her lips to the rim of the cup.
H. For colds, fevers, and reactions to immunizations, administer infant-strength acetaminophen (Tylenol) and/or ibuprofen (Advil); increase fluids; do not administer aspirin products. Tepid baths also help to reduce fever.
I. Separation anxiety is a major stress for hospitalized child from middle infancy through the preschool years.
   1. Protest: loud crying and screaming for parent; child refuses attention from anyone else.
   2. Despair: crying stops and there is less activity; child is not interested in play and withdraws.
   3. Detachment (denial): child appears to have adjusted to hospitalization. Behavior is due to resignation, not a sign of contentment. This is not a positive reaction to hospitalization.

**Anticipatory Guidance for the Family of an Infant**

A. Use an infant car seat, facing backwards.
B. Put the baby on his or her back or side to sleep.
C. By 3 to 4 months, infants sleep approximately 15 hours per day.
D. Safety.
   1. Keep one hand on the baby when he or she is on a high surface; baby rolls over around age 3 to 4 months.
   2. Never leave baby alone with young children or pets.
   3. Baby-proof your home: prevent access to stairs and cabinets; practice pool and tub water safety.
   4. After feeding, place infant on right side.
E. Immunization schedule (Figure 2-1).

**ALERT** Assist client/family to identify and participate in activities fitting the child’s age, preference, physical capacity, and developmental level. Provide care that meets the special needs of the preschool client ages 1 month to 4 years.

**Anticipatory Guidance for the Family of a Toddler**

A. Continue to emphasize safety; discuss medications, poisons, car seats, latches on doors, falls, and water safety.
B. Toilet training usually begins around 2 years; accidents are common.
C. Sibling rivalry is common if there is a new baby in the family.
D. Temper tantrums are attention-seeking behavior and are not uncommon for a toddler.
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Developmental Milestones</th>
<th>Health Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth-4 months</td>
<td>Consistently gains weight (5-7 oz per week)</td>
<td>Teething may begin</td>
</tr>
<tr>
<td></td>
<td>Posterior fontanel closes</td>
<td>Coordination progresses from jerky movement to grasping objects</td>
</tr>
<tr>
<td></td>
<td>Responds to sounds and begins vocalizing</td>
<td>Provide toys that increase hand-eye coordination</td>
</tr>
<tr>
<td></td>
<td>Gains head control → lifts chest → rolls over one way</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Smiles responsively → smiles when spoken to</td>
<td></td>
</tr>
<tr>
<td>4-9 months</td>
<td>Doubles birth weight (gains 3-5 oz per week)</td>
<td>Reaches for objects and grasps them</td>
</tr>
<tr>
<td></td>
<td>Teething begins with lower incisors</td>
<td>Begins &quot;stranger anxiety&quot;</td>
</tr>
<tr>
<td></td>
<td>Sits with support; begins crawling</td>
<td>Begins vocalizing with single consonants</td>
</tr>
<tr>
<td></td>
<td>Turns over in both directions</td>
<td>Provide brightly colored toys that are easy to grasp</td>
</tr>
<tr>
<td></td>
<td>Laughs aloud</td>
<td></td>
</tr>
<tr>
<td>9-12 months</td>
<td>Birth weight triples</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Head and chest circumferences are equal</td>
<td>Has developed crude to fine pincer grasp</td>
</tr>
<tr>
<td></td>
<td>Anterior fontanel begins to close</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teething: has 6-8 teeth</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sits alone → moves from prone to sitting position</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Crawling→ pulling up → walks holding on to furniture</td>
<td></td>
</tr>
<tr>
<td>Toddler (12-24 months)</td>
<td>50% of height at 2 years</td>
<td>Speech becomes understandable</td>
</tr>
<tr>
<td></td>
<td>Exaggerated lumbar curve</td>
<td>Thumb sucking may be at peak</td>
</tr>
<tr>
<td></td>
<td>Mobile: walks, runs, jumps</td>
<td>Solitary play at 12 months; parallel play at 18 months</td>
</tr>
<tr>
<td></td>
<td>Walks up and down stairs, one foot at a time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Begins using eating utensils</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Obey simple commands</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Begins to develop vocabulary</td>
<td></td>
</tr>
<tr>
<td>Preschool (3-5 years)</td>
<td>Birth length doubles at 4 years</td>
<td>Begins to demonstrate self-care abilities</td>
</tr>
<tr>
<td></td>
<td>Coordination continues to improve</td>
<td>Knows own name</td>
</tr>
<tr>
<td></td>
<td>Rides tricycle, throws a ball</td>
<td>Good verbalization: talks about activities</td>
</tr>
<tr>
<td></td>
<td>Walks up and down stairs with alternating feet</td>
<td>Plays &quot;dress up&quot;; plays with cars, dolls, grooming aids</td>
</tr>
<tr>
<td>School-age (6-10 years)</td>
<td>Growth spurts begin</td>
<td>Increasing importance of peer groups</td>
</tr>
<tr>
<td></td>
<td>Increasingly active</td>
<td>Plays with groups of same sex</td>
</tr>
<tr>
<td></td>
<td>Very concerned with body image</td>
<td>Competes for attention</td>
</tr>
<tr>
<td></td>
<td>Need for conformity; rules and rituals</td>
<td></td>
</tr>
<tr>
<td>Adolescence (11-17 years)</td>
<td>Beginning and completing puberty</td>
<td>Moves from concrete to abstract thinking</td>
</tr>
<tr>
<td></td>
<td>Girls mature earlier than boys</td>
<td>Increased independence</td>
</tr>
<tr>
<td></td>
<td>Very conscious of changes in body</td>
<td>Strong peer group association</td>
</tr>
<tr>
<td></td>
<td>Rapid growth</td>
<td>Increased interest in opposite sex</td>
</tr>
<tr>
<td>Young adult (18-30 years)</td>
<td>Physical maturity</td>
<td>Launches career</td>
</tr>
<tr>
<td></td>
<td>Full mental capacity</td>
<td>Selects a mate, begins own family</td>
</tr>
<tr>
<td></td>
<td>Assumes responsibility for own learning</td>
<td>Begins involvement in community</td>
</tr>
<tr>
<td></td>
<td>Adult relationship with parents</td>
<td></td>
</tr>
<tr>
<td>Adult (30-60 years)</td>
<td>Physiologic processes begin slow decline</td>
<td>Family tasks</td>
</tr>
<tr>
<td></td>
<td>Cognitive skills peak</td>
<td>Assist children to responsible adulthood</td>
</tr>
<tr>
<td></td>
<td>Creativity at maximum</td>
<td>Role reversal with aging parents</td>
</tr>
<tr>
<td></td>
<td>Increase in community involvement</td>
<td>Defines role of grandparenting</td>
</tr>
<tr>
<td></td>
<td>Increase in concern for future of society</td>
<td></td>
</tr>
<tr>
<td>Older adult (60+ years)</td>
<td>Decline of physiologic status</td>
<td>Maintains reasoning ability and abstract thinking</td>
</tr>
<tr>
<td></td>
<td>Demineralization of bones</td>
<td>Thinking slows</td>
</tr>
<tr>
<td></td>
<td>↓ Cardiac output</td>
<td>Restructure in family roles</td>
</tr>
<tr>
<td></td>
<td>↓ Respiratory vital capacity</td>
<td>Retirement</td>
</tr>
<tr>
<td></td>
<td>↓ Glomerular filtration rate</td>
<td>Reorganization of activities</td>
</tr>
<tr>
<td></td>
<td>↓ Serum albumin</td>
<td>Continues with community involvement and politics</td>
</tr>
<tr>
<td></td>
<td>↓ Glucose tolerance</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 2  Health Implications Across the Life Span

Recommended Immunization Schedule for Persons Aged 0 Through 6 Years—United States • 2009

For those who fall behind or start late, see the catch-up schedule

<table>
<thead>
<tr>
<th>Vaccine ▼ Age ▼</th>
<th>0 months</th>
<th>1 month</th>
<th>2 months</th>
<th>4 months</th>
<th>6 months</th>
<th>12 months</th>
<th>15 months</th>
<th>18 months</th>
<th>19–23 months</th>
<th>2–3 years</th>
<th>4–6 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B</td>
<td>HepB</td>
<td>HepB</td>
<td>see footnote 1</td>
<td>HepB</td>
<td>HepB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotavirus</td>
<td>RV</td>
<td>RV</td>
<td>RV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diphtheria, Tetaus, Pertussis</td>
<td>DTaP</td>
<td>DTaP</td>
<td>DTaP</td>
<td>see footnote 3</td>
<td>DTaP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haemophilus influenzae type b</td>
<td>Hib</td>
<td>Hib</td>
<td>Hib</td>
<td></td>
<td>Hib</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal</td>
<td>PCV</td>
<td>PCV</td>
<td>PCV</td>
<td>PCV</td>
<td>PCV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inactivated Poliovirus</td>
<td>IPV</td>
<td>IPV</td>
<td>IPV</td>
<td></td>
<td>IPV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Influenza (Yearly)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles, Mumps, Rubella</td>
<td>MMR</td>
<td>MMR</td>
<td>see footnote 7</td>
<td>MMR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella</td>
<td>Varicella</td>
<td>see footnote 8</td>
<td>Varicella</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>HepA (2 doses)</td>
<td>HepA Series</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal</td>
<td>MCV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This schedule indicates the recommended ages for routine administration of currently licensed vaccines, as of December 1, 2008, for children aged 0 through 6 years. Any dose not administered at the recommended age should be administered at a subsequent visit, when indicated and feasible. Licensed combination vaccines may be used whenever any component of the combination is indicated and other components are not contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the relevant Advisory Committee on Immunization Practices statement for detailed recommendations, including high-risk conditions: http://www.cdc.gov/vaccines/pubs/acip-list.htm. Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at http://www.vaers.hhs.gov or by telephone, 800-822-7967.

FIGURE 2-1 Recommended Immunization Schedule for Persons Aged 0–6 Years, 2009. For recent updates and a full explanation of footnotes, refer to the Centers for Disease Control and Prevention website, http://www.cdc.gov/vaccines/recs/schedules/child-schedule.htm# printable. (From Centers for Disease Control and Prevention, Advisory Committee on Immunization Practices [ACIP], United States, 2009. Available at www.cdc.gov.)

E. Need to start regular dental checkups.
F. Establish and maintain consistency in discipline.
G. Toddler enjoys motion toys such as pull toys, riding toys, and wagons.
H. Finger paints, interlocking blocks, and large-piece puzzles increase fine motor skills.
I. May regress to previous level of development in time of stress and illness, especially with toilet training.
J. Has no concept of death; primary reaction is to separation and loss.
K. See separation anxiety under anticipatory guidance for the infant.

ALERT  Identify expected physical, cognitive, psychosocial and moral stages of development.

Anticipatory Guidance for the Family of a Preschooler

A. Safety: discuss use of car seat/seat belts, precautions for swimming pools, pedestrian and street safety skills, proper use of playground equipment.
B. Preschool activities: reading, puzzles, coloring large pictures. Toys include building blocks, cars, and dolls.
C. Control time spent watching TV; screen programs for suitability.
D. Encourage socialization with other children.
E. Household chores: picking up clothes, straightening room, etc.
F. Structured learning environment: Mother’s Day Out, Head Start, Sunday school.

G. School readiness (attention span, easy separation from mother) begins around 5 years.
H. Should know full name and address by age 5 years.
I. Curious about fire, matches, firearms; keep such items out of reach and locked up.
J. Sees death as temporary and reversible, much like going to sleep. May view death as a punishment; fears the separation and abandonment.
K. Can tolerate brief periods of hospitalization; may trust other significant adults. Stress of illness may cause regression of previously attained levels of behavior, and separation anxiety may become an issue.

ALERT  Provide care that meets the needs of the school-age client ages 5-12 years.

Anticipatory Guidance for the Family of a School-Age Child

A. Safety: water, seat belts, skateboard, bicycle, fire safety. Establish a plan for child if approached by stranger (stranger danger).
B. Encourage good dental hygiene habits.
C. Encourage good eating habits.
D. Regular physical activity (group and team activities); make sure child wears protective sports gear.
E. Encourage peer relationships and communication.
F. Maintain consistency in limit setting.
G. Parental role-model behaviors: using seat belts, avoiding tobacco, eating properly, exercising regularly.
**Recommended Immunization Schedule for Persons Aged 7 Through 18 Years—United States • 2009**

For those who fall behind or start late, see the schedule below and the catch-up schedule.

<table>
<thead>
<tr>
<th>Vaccine ▼</th>
<th>Age ▲</th>
<th>7-10 years</th>
<th>11-12 years</th>
<th>13-18 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetanus, Diphtheria, Pertussis¹</td>
<td>see footnote 1</td>
<td><strong>Tdap</strong></td>
<td><strong>Tdap</strong></td>
<td></td>
</tr>
<tr>
<td>Human Papillomavirus²</td>
<td>see footnote 2</td>
<td><strong>HPV (3 doses)</strong></td>
<td><strong>HPV Series</strong></td>
<td></td>
</tr>
<tr>
<td>Meningococcal³</td>
<td></td>
<td><strong>MCV</strong></td>
<td><strong>MCV</strong></td>
<td></td>
</tr>
<tr>
<td>Influenza⁴</td>
<td></td>
<td><strong>Influenza (Yearly)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal⁵</td>
<td></td>
<td><strong>PPSV</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis A⁶</td>
<td></td>
<td><strong>HepA Series</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B⁷</td>
<td></td>
<td><strong>HepB Series</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inactivated Poliovirus⁸</td>
<td></td>
<td><strong>IPV Series</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles, Mumps, Rubella⁹</td>
<td></td>
<td><strong>MMR Series</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella¹⁰</td>
<td></td>
<td></td>
<td><strong>Varicella Series</strong></td>
<td></td>
</tr>
</tbody>
</table>

This schedule indicates the recommended ages for routine administration of currently licensed vaccines, as of December 1, 2008, for children aged 7 through 18 years. Any dose not administered at the recommended age should be administered at a subsequent visit, when indicated and feasible. Licensed combination vaccines may be used whenever any component of the combination is indicated and other components are not contraindicated and if approved by the Food and Drug Administration for that dose of the series. Providers should consult the relevant Advisory Committee on Immunization Practices statement for detailed recommendations, including high-risk conditions: [http://www.cdc.gov/vaccines/pubs/acip-list.htm](http://www.cdc.gov/vaccines/pubs/acip-list.htm). Clinically significant adverse events that follow immunization should be reported to the Vaccine Adverse Event Reporting System (VAERS). Guidance about how to obtain and complete a VAERS form is available at [http://www.vaers.hhs.gov](http://www.vaers.hhs.gov) or by telephone, 800-822-7967.

**FIGURE 2-2** Recommended Immunization Schedule for Persons Aged 7-18 Years, 2009. For recent updates and a full explanation of footnotes, refer to the Centers for Disease Control and Prevention website, [http://www.cdc.gov/vaccines/recs/schedules/child-schedule.htm#printable](http://www.cdc.gov/vaccines/recs/schedules/child-schedule.htm#printable). (From Centers for Disease Control and Prevention, Advisory Committee on Immunization Practices [ACIP], United States, 2009. Available at [www.cdc.gov](http://www.cdc.gov).)

H. Teaching: avoid drugs, alcohol, and tobacco.
I. Provide age-appropriate sex education materials.
J. Injury prevention: Around ages 8 to 10 years, child may begin to engage in dangerous risk-taking behavior (dares, smoking, drinking).
K. Maintain yearly health checkups and immunizations as indicated (Figure 2-2).
L. Develop independence: give allowance, choice of when to complete household chores; child tests rules and questions authority.
M. Avoid high noise levels (e.g., music headsets).
N. Physical development and puberty changes may begin in girls as early as 10 years.
O. Strong influence and dependence on peer group.
P. Spends less time with family.
Q. In early childhood, begins to see death as irreversible; may interpret it as destructive, scary, and/or violent.
R. In later childhood, views death as final and irreversible. May become interested in details regarding biologic death and funerals.
S. The hospitalized child fears being away from the family, peers, and usual activities. May exhibit feelings of loneliness, boredom, and isolation.

**Anticipatory Guidance for the Family of an Adolescent**
A. Establish realistic expectations for family rules.
B. Minimize criticism, nagging, and derogatory or demeaning comments.
C. Respect child’s need for privacy.
D. Recognize positive behavior and achievement.
E. Establish clear limits: curfew, work hours.
F. Strives for independence from parents and acceptance by peers.
G. Begins to exhibit a mature understanding of death; may deny own mortality by increased risk taking. May have difficulty coping with death of significant other.
H. Maintain yearly physical checkups and immunizations as indicated (see Figure 2-2).
I. Hospitalized adolescents may exhibit rejection, uncooperativeness, or withdrawal because of the loss of control. Are frequently labeled by caregivers as difficult, unmanageable clients.

**ALERT** Modify approaches to care in accordance with client developmental stage. Provide care that meets the special needs of the adult client ages 19 to 64 years.

**Anticipatory Guidance for the Adolescent**
A. Learn techniques to protect self from physical, emotional, and sexual abuse, including rape.
B. Seek help if physically or sexually abused.
C. If sexually active, obtain information about safe sex and pregnancy prevention (e.g., condoms, sexually transmitted diseases, contraceptives).

D. Avoid smoking, drugs, and alcohol.

**Health Implications and Guidance for Adults and Older Adults** (Box 2-1)

**ALERT** Provide care to meet the special needs of older clients ages 65 to 85 years and adult clients over 85 years old.

**Box 2-1 OLDER ADULT CARE FOCUS**

**Age-Related Factors Influencing Older Adult Care**

- Frequent absence of social and financial support  
  *Examples:* Disease and/or loss of spouse, inadequate income from pension
- Presence of significant concurrent illness  
  *Examples:* Dementia, chronic obstructive disease, congestive heart failure, depression, diabetes
- Altered pain perception  
  *Example:* Increased incidence of referred pain
- Impaired homeostatic mechanisms  
  *Examples:* Increased problems with dehydration, incontinence, impaired defecation, altered immune status
- Impaired mobility  
  *Examples:* Dependence on walkers, need for assistance with bed transferring, change in use of transportation, presence of Parkinsonism or degenerative joint disease
- Increased frequency of adverse reactions to drugs
- Impaired equilibrium, resulting in falls

**COMMUNICABLE DISEASES**

**ALERT** Understand communicable diseases and modes of organism transmission (airborne, droplet, contact). Apply principles of infection control.

<table>
<thead>
<tr>
<th>VACCINE</th>
<th>AGE GROUP</th>
<th>19–26 years</th>
<th>27–49 years</th>
<th>50–59 years</th>
<th>60–64 years</th>
<th>≥65 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetanus, diphtheria, pertussis (Td/Tdap)</td>
<td>Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yr</td>
<td>Td booster every 10 yrs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human papillomavirus (HPV)</td>
<td>3 doses (females)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella</td>
<td>2 doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zoster</td>
<td>1 dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles, mumps, rubella (MMR)</td>
<td>1 or 2 doses</td>
<td>1 dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza</td>
<td>1 dose annually</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pneumococcal (polysaccharide)</td>
<td>1 or 2 doses</td>
<td>1 dose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>2 doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>3 doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meningococcal</td>
<td>1 or more doses</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*Covered by the Vaccine Injury Compensation Program.

For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection):

Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)

No recommendation

**FIGURE 2-3 Recommended Adult Immunization Schedule, 2009.** For recent updates and a full explanation of footnotes, refer to the Centers for Disease Control and Prevention website, [http://www.cdc.gov/vaccines/recs/schedules/adult-schedule.htm#print](http://www.cdc.gov/vaccines/recs/schedules/adult-schedule.htm#print). (From Centers for Disease Control and Prevention, Advisory Committee on Immunization Practices [ACIP], United States, 2009. Available at [www.cdc.gov](http://www.cdc.gov)).
A. Incubation period: time from exposure to the pathogen until clinical symptoms occur.
B. Communicability: period of time in which an infected person is most likely to pass the pathogens to another person.
C. Prodromal period: begins with early manifestations of the disease or infection and continues until there are overt clinical symptoms characteristic of the disease.
D. Vaccinations for health care workers (Table 2-2).

**Varicella (Chicken Pox)**

**Characteristics**
A. Herpes virus: varicella zoster; highly contagious, usually occurs in children under 15 years of age.
B. Maculopapular rash with vesicular scabs in multiple stages of healing.
C. Incubation period: 14 to 16 days.
D. Transmission: contact, airborne.
E. Communicability: 1 day before lesions appear to time when all lesions have formed crusts.

**Assessment**
A. Prodromal: low-grade fever, malaise.
B. Acute phase: red maculopapular rash, which turns almost immediately to vesicles, each with an erythematous base; vesicles ooze and crust.
C. New crops of vesicles continue to form for 3 to 5 days, spreading from trunk to extremities.
D. All three stages are usually present in varying degrees at one time; pruritus.
E. Complications: secondary infection may lead to sepsis, abscess, cellulitis, or pneumonia.

**Health Care Interventions**
A. Preventive: varicella immunization (see Figure 2-1, Figure 2-2, Figure 2-3).

B. Skin care to decrease itching.
   1. Antihistamines, antipruritics, calamine lotion, and acetaminophen and/or ibuprofen for fever.
   2. Acyclovir decreases the number of lesions and shortens duration of clinical symptoms.
   3. Cool baths.
   4. Paste of baking soda and/or calamine lotion may decrease irritation.
C. Keep child’s fingernails short; apply mittens if necessary.
D. Isolate affected child from other children until vesicles have crusted.
E. Provide quiet activities to keep child occupied to lessen pruritus and prevent scratching.
F. Avoid use of aspirin.
G. Check with health care provider before administering vaccine to immunocompromised children. Vaccine should not be given to pregnant women.

**Parotitis (Mumps)**

**Characteristics**
A. An acute viral disease characterized by tenderness and swelling of one or both of the parotid glands and/or the other salivary glands.
B. Incubation period: 14 to 21 days.
C. Transmission: direct contact and droplet.
D. Communicability: most commonly occurs immediately before and after swelling begins.

**Assessment**
A. Prodromal: headache, fever, malaise.
B. Acute phase: swelling of salivary glands (peaks in 3 days), leading to difficulty in swallowing, earache.
C. Complications.
   1. Postinfectious encephalitis.
   2. Sensorineural deafness.
   3. Orchitis, epididymitis.

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**Table 2-2  CENTERS FOR DISEASE CONTROL (CDC) AND PREVENTION HEALTH CARE PERSONNEL (HCP) VACCINE RECOMMENDATIONS**

<table>
<thead>
<tr>
<th>Disease</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B</td>
<td>Three-dose series of hepatitis B vaccine for preexposure protection and anti-HBs serologic testing 1-2 months after third dose.</td>
</tr>
<tr>
<td>Influenza</td>
<td>Annual vaccination with current vaccine.</td>
</tr>
<tr>
<td></td>
<td>Give live attenuated influenza vaccine (LAIV) intranasally.</td>
</tr>
<tr>
<td></td>
<td>Give trivalent (inactivated) influenza vaccine (TIV) intramuscularly.</td>
</tr>
<tr>
<td>Tetanus/diphtheria/pertussis</td>
<td>Booster dose of tetanus and diphtheria toxoid every 10 years after primary series of diphtheria and tetanus toxoids; give 1-time dose of DTaP to all personnel younger than 65 who have direct patient contact.</td>
</tr>
<tr>
<td>Measles/mumps/rubella (MMR)</td>
<td>Health care workers who do not have evidence of immunity to measles (physician-diagnosed measles or laboratory evidence of immunity) should have documentation of two doses of measles vaccine received on or after their first birthday; vaccine can be given as MMR.</td>
</tr>
<tr>
<td></td>
<td>A single dose of live attenuated rubella vaccine received on or after the first birthday is sufficient; vaccine can be given as MMR.</td>
</tr>
<tr>
<td>Varicella</td>
<td>Give 2 doses of varicella vaccine, 4 weeks apart, if there is no reliable history of varicella or evidence of immunity.</td>
</tr>
</tbody>
</table>

**Health Care Interventions**

A. Preventive: measles, mumps, and rubella (MMR) immunization (see Figure 2-1, Figure 2-2, Figure 2-3). MMR vaccine should not be given to pregnant or severely immunocompromised clients.
B. Bed rest until swelling subsides.
C. Fluids and soft, bland food.
D. Orchitis: warm or cold packs; light support to scrotum.
E. Cool compresses applied to swollen neck area.

**Rubeola (Measles, Hard Measles, Red Measles)**

**Characteristics**

A. An acute viral disease characterized by fever and a rash.
B. Incubation: 10 to 20 days.
C. Transmission: direct contact with respiratory droplets.
D. Communicability: 4 days before rash to 5 days after rash appears.

**Assessment**

A. Prodromal: fever, malaise, cold-like symptoms.
B. Koplik’s spots: small, irregular red spots noticed on the buccal mucosa opposite the molars; usually appear 2 days before rash.
C. Acute phase: begins 3 to 4 days after prodromal symptoms; maculopapular rash begins on face and gradually spreads downward from head to feet.
D. Photophobia, conjunctivitis, and bronchitis.
E. Complications: otitis media, pneumonia, laryngotracheitis, and encephalitis.

**Health Care Interventions**

A. Preventive: MMR immunization (see Figure 2-1, Figure 2-2). MMR should not be given to severely immunosuppressed clients.
B. Bed rest until fever subsides, acetaminophen or ibuprofen for fever control.
C. Dim lights to decrease photophobia.
D. Tepid baths and lotion to relieve itching.
E. Encourage intake of fluids to maintain hydration; temperature may spike 2 to 3 days after rash appears.

**Rubella (German Measles, Three-Day Measles)**

**Characteristics**

A. An acute, mild systemic viral disease that produces a distinctive 3-day rash and lymphadenopathy.
B. Incubation: 14 to 21 days.
C. Transmission: nasopharyngeal secretions, direct contact.
D. Communicability: from up to 7 days before rash until 5 days after rash.

**Assessment**

A. Prodromal: low-grade fever, headache, malaise, and symptoms of a cold.
B. Rash first appears on face and spreads down to neck, arms, trunk, and then legs.
C. Diagnostics: persistent rubella antibody titer of 1:8 usually indicates immunity.
D. Complications: can have teratogenic effects on fetus.

**Health Care Interventions**

A. Primarily symptomatic; bed rest until fever subsides.
B. Preventive: MMR immunization (see Figure 2-1, Figure 2-2). MMR should not be given to severely immunosuppressed clients.
C. Pregnant women should avoid contact with children who have rubella. If not immunized before pregnancy, vaccination should not be given until completion of pregnancy.

**Roseola Infantum (Exanthema Subitum)**

**Characteristics**

A. A common, acute benign viral infection, usually occurring in infants and young children (ages 6 months to 3 years), characterized by sudden onset of a high temperature, followed by a rash.
B. Incubation period: usually 5 to 15 days.
C. Transmission: unknown, generally limited to children age 6 months to 3 years.
D. Communicability: unknown.

**Assessment**

A. Sudden onset of high fever.
B. As fever drops, a maculopapular, nonpruritic rash appears abruptly; rash blanches or fades under pressure and disappears in 1 to 2 days.
C. Complications: febrile seizures.

**Health Care Interventions**

A. Symptomatic: provide tepid baths, offer fluids frequently, dress child in cool clothing.
B. Acetaminophen and/or ibuprofen for fever control.

**Diphtheria**

**Characteristics**

A. An infection caused by Corynebacterium diphtheriae.
B. Incubation period: 3 to 6 days.
C. Transmission: direct contact, contaminated articles (fomites).
D. Communicability: variable, usually 2 weeks, but may be longer; three negative cultures required.

**Assessment**

A. Nasal discharge, anorexia, sore throat, low-grade fever.
B. Smooth, white or gray membrane over tonsillar region; hoarseness and potential airway obstruction.
C. Frequently, tachypnea, dyspnea, stridor, or airway obstruction may occur if condition goes untreated.
D. Complications: myocarditis, neuritis.

**Health Care Interventions**

A. Maintain isolation from other children.
B. Antibiotic and IV diphtheria antitoxin are common medications.
C. Humidified oxygen with respiratory problems; have tracheostomy set available.
D. Provide adequate humidification to allow for liquefaction of secretions.
E. Preventive: diphtheria, tetanus, and pertussis (DTaP) immunization (see Figure 2-1, Figure 2-2, Figure 2-3).

**Pertussis (Whooping Cough)**

**Characteristics**
A. An acute inflammation of the respiratory tract caused by *Bordetella pertussis*; is most severe in children under 2 years of age.
B. Incubation period: 6 to 20 days; average, 7 days.
C. Transmission: air droplet.
D. Communicability: highly contagious; greatest during the catarrhal stage before the onset of paroxysms of coughing.

**Assessment**
A. Catarrhal stage: usually begins with symptoms of an upper respiratory tract infection, fever.
B. Paroxysmal stage.
   1. Cough occurs primarily at night; consists of a series of short rapid coughs, followed by a sudden inspiration that is a high-pitched, crowing sound or a “whoop.”
   2. Paroxysms of coughing may continue until thick mucus plug is expelled.
C. Convalescent stage: paroxysms of coughing are less frequent.
D. Diagnostics: culture and sensitivity of nasopharyngeal secretions; identification of organism.
E. Complications: pneumonia, atelectasis, convulsions.

**Health Care Interventions**
A. Respiratory isolation during catarrhal stage; continue bed rest as long as fever is present.
B. Administer pertussis immunoglobulin and antibiotic therapy (erythromycin).
C. Provide oxygen and humidification and observe for signs of increasing respiratory distress.
D. Avoid exposure to environmental precipitants of paroxysms of coughing such as cold air, smoke, dust, etc.
E. Maintain nutrition by small frequent feedings.
F. Avoid use of cough suppressants and sedatives.

**Tetanus (Lockjaw)**

**Characteristics**
A. An acute, very serious, potentially fatal disease characterized by painful muscle spasms and convulsions caused by the anaerobic gram-positive bacillus *Clostridium tetani*.
B. Incubation period: generally from 2 days to 2 months; average is 10 days.
C. Transmission: through a puncture wound that is contaminated by soil, dust, or excreta that contain *Clostridium tetani* or by way of burns and minor wounds (e.g., infection of the umbilicus of a newborn).

**Assessment**
A. Progressive stiffness and tenderness in the muscles of the neck and jaw (trismus or lockjaw).
B. Progressive involvement of trunk muscles causes opisthotonos positioning.
C. Paroxysmal contractions occur in response to stimuli (noise, touch, light).
D. Client remains alert; mental status is not affected.
E. Complications: laryngospasm and tetany of the respiratory muscles cause contractions that may precipitate atelectasis and pneumonia.

**Health Care Interventions**
A. Preventive.
   1. Careful cleansing and debrideinent of wounds.
   2. Immunization: DTaP for child (Figure 2-1, Figure 2-2); adult tetanus toxoid (Td) every 10 years (see Figure 2-3).
B. Administration of tetanus immune globulin and/or tetanus antitoxin for inadequate immunization in child who receives a tetanus-prone injury/wound.
C. Maintain seizure precautions: quiet, nonstimulating environment; monitor vital signs, muscle tone, etc.
D. Dose of tetanus antitoxin is not necessary for clean minor wounds in immunized clients.

**Poliomyelitis**

**Characteristics**
A. An acute, contagious disease affecting the central nervous system.
B. Incubation period: 5 to 35 days; average, 7 to 14 days.
C. Transmission: fecal-oral or pharyngeal-opharyngeal contact.
D. Communicability: virus in throat for 1 week after onset; in feces, intermittently for 4 to 6 weeks.

**Assessment**
A. Abortive or inapparent type.
   1. Fever, sore throat, headache, malaise, nausea, vomiting, abdominal pain.
   2. Lasts a few hours to a few days.
B. Nonparalytic type: same symptoms as abortive type but more severe, with pain and stiffness in the neck, back, and legs.
C. Paralytic type: initial symptoms are similar to those of nonparalytic poliomyelitis, followed by recovery, then signs of central nervous system paralysis.

**Health Care Interventions**
A. Preventive: inactivated polio virus vaccine (see Figure 2-1, Figure 2-2).
B. Bed rest during acute phase.
C. Physical therapy with warm moist packs and range of motion.
D. Position to maintain body alignment.
E. Complications: teach family and client early symptoms of respiratory distress.

### Scarlet Fever (Scarlatina)

**Characteristics**
A. Group A beta-hemolytic streptococcal infection that often follows acute streptopharyngitis.
B. Incubation period: 1 to 7 days; average, 3 days.
C. Transmission: direct contact or droplet of nasopharyngeal secretions.
D. Communicability: variable, approximately 10 days.

**Assessment**
A. Sudden onset of high fever and tachycardia.
B. Enlarged edematous tonsils covered with exudate; malaise, sore throat, fever with generalized lymphadenopathy.
C. Diffuse, fine erythematous rash that resembles a sunburn with goose bumps; rash is more intense in folds and joints but is often absent from the face.
D. Desquamation of the skin, which usually begins by end of first week and is often seen on the palms and soles of the feet during the convalescent period.
E. Diagnostics: history of a recent streptococcal infection, positive antistreptolysin-O (ASO) titer, and a throat culture positive for group A beta-hemolytic streptococci.
F. Complications: otitis media, tonsillar abscess, glomerulonephritis.

**Health Care Interventions**
A. Administration of a full course of penicillin (or erythromycin in penicillin-sensitive clients).
B. Administration of antipyretics and anesthetic throat sprays or gargles to relieve sore throat.
C. Encourage intake of fluids to prevent dehydration during febrile phase.
D. Assess for, and teach family to observe for, early symptoms of complications.

### Infectious Mononucleosis

**Characteristics**
A. An acute, self-limiting infectious disease caused by the Epstein-Barr virus; member of the herpes group of viruses, occurring most often among young persons under 25 years of age; often called the “kissing disease.”
B. Incubation period: 30-50 days.
C. Transmission: direct or indirect contact with oral secretions—intimate contact, sharing same drinking cup, hand to mouth; probably oral pharyngeal route.

**Assessment**
A. Onset of symptoms occurs anytime from 10 days to 6 weeks after exposure; may be acute or insidious.
B. Malaise, sore throat, fever with generalized lymphadenopathy.
C. Diagnostic: a positive heterophil antibody test (titer of 1:160 is considered diagnostic); positive Monospot test result.
D. Complications: spleen involvement; pneumonitis, pericarditis, and neurologic involvement.

**Health Care Interventions**
A. Bed rest, anesthetic throat gargles, antipyretics.
B. Provide adequate nutrition: soft foods, fluids.

### Poisoning

**General Principles (Remember SIRES)**
A. Stabilize the client’s condition.
   1. Assess the condition and provide respiratory support; obtain IV access site.
   2. Terminate exposure to the toxic substance: remove pills from mouth, flush eyes, remove contaminated clothing, etc.
B. Identify the toxic substance.
   1. Obtain accurate history and retrieve any available poison.
   2. Notify local poison control center, emergency facility, or physician for immediate care and advice regarding treatment.
C. Remove the substance to decrease absorption.
   1. Shower or wash off radioactive substances.
   2. Antidotes: for heroin or other drug overdose.
   3. Ingested substances: lavage, absorbents (activated charcoal), or cathartics.
D. Eliminate the substance from the client’s body.
   1. Activated charcoal may be administered to absorb the toxic substance. Inducing emesis by administering syrup of ipecac is no longer routinely recommended for home or emergency treatment.
E. Support the client both physically and psychologically.
   1. If intentional overdose or suicide attempt, refer for psychiatric evaluation.
   2. If accidental poisoning occurs with a child, parents often demonstrate guilt and self-reproach in regard to their parenting role.

### Salicylate Poisoning
A. Toxic dose levels: 300-500 mg/kg of body weight. For a 30-lb child (13.6 kg), 12 adult-strength aspirin or 48 baby aspirin would be toxic.
B. In severe toxic overdose, metabolic activity increases; this results in an increased consumption of oxygen, increased temperature, and increased production of carbon dioxide. Metabolic acidosis eventually occurs as a result of the change in body processes.
C. Chronic overdose causes a deficiency in platelets, leading to bleeding tendencies.
Assessment
A. Clinical manifestations.
1. Hyperventilation, nausea, vomiting.
2. Increased temperature, tinnitus.
3. Altered consciousness, oliguria.
4. Metabolic acidosis, seizures (severe toxicity).
5. Diaphoresis and dehydration.
B. Diagnostics.
1. Serum salicylate level.
2. Electrolytes.

Treatment
A. Administer activated charcoal.
B. Administer vitamin K to decrease bleeding tendencies.
C. Oxygen and ventilatory support for respiratory depression. Provide IV fluids and sodium bicarbonate to treat the acidosis.
D. Cooling activities and treatments for hyperthermia.
E. In severe cases, hemodialysis may be performed.

Nursing Interventions
Goal: To provide initial stabilization of the child.
A. Administer activated charcoal to reduce systemic absorption. Dose of charcoal should be 10 times the amount of drug ingested; frequently difficult to get this amount down the child.
B. Administer a cathartic (magnesium sulfate) with charcoal to hasten elimination of the drug.
C. Ongoing assessment of vital signs, level of consciousness, and urine output.
Goal: To prevent salicylate poisoning and provide teaching to family.
A. Educate family regarding safe storage of medications: childproof caps, locked medicine cabinets, etc.
B. Teach parents to read labels on medications; other medications frequently contain salicylate.
C. Advise parents that activated charcoal will cause the child’s stool to be black.

Acetaminophen Poisoning
A. Definition of toxicity in children is 150 mg/kg or greater.
B. Primary toxic effects are on the liver.
C. Antidote: N-acetylcyesteine (Mucomyst).
D. Most common poisoning in children.

Assessment
A. Clinical manifestations: four stages.
1. Stage 1 (2 to 4 hours).
   a. Nausea and vomiting.
   b. Sweating and pallor.
2. Stage 2 (latent stage, 24 to 36 hours); child improves.
3. Stage 3 (hepatic involvement).
   a. Right, upper quadrant pain.
   b. Coagulation defects.
   c. Jaundice.
4. Stage 4 (recovery if hepatic damage is not severe).

Treatment
A. Early administration of activated charcoal—preferably within 30 minutes to 1 hour after ingestion.
B. N-acetylcysteine: one loading dose and multiple maintenance doses.

Nursing Interventions
See Salicylate Poisoning.

Lead Poisoning
A. Ingestion of lead from hand to mouth and exposure to lead-contaminated dust, eating from improperly glazed glassware (leaded glass) or lead-based pottery or chewing on furniture with lead based paint.
B. Increased risk in children under 6 years of age because they absorb 40% to 50% of lead, whereas adults absorb only 5% to 10%.

Assessment
A. Clinical manifestations.
   1. Renal: problem in adults with occupational exposure; renal impairment will delay excretion of the lead from the body.
   2. Hematologic.
      a. Anemia.
      b. Iron deficiencies increase lead absorption; serum ferritin level is sensitive indicator of iron status.
      c. Chronic: blue lead line on gums and “lead lines” on x-rays of the long bones.
   3. Neurologic.
      a. Hyperactivity.
      b. Increased distractibility.
      c. Possible encephalopathy to mental retardation.
      d. Seizures.
B. Diagnostics.
   1. Blood lead level (BLL) is used for screening and for diagnostic. A BLL greater than 10 mcg/dL requires follow-up investigation, BLL greater than 20 mcg/dL requires treatment.

Treatment
A. Chelation therapy process for removing lead from the circulating blood; aids in secretion by the kidneys.
   1. Calcium disodium edetate (EDTA) administered by deep intramuscular injection or by IV; do not give in absence of adequate urine output.
   2. Dimercaprol (BAL): administered by deep intramuscular injection.

Nursing Interventions
Goal: To identify lead poisoning and assist with the elimination of lead from the body.
A. Identify high-risk groups such as children who engaged in pica or those living in environment containing old lead-based paint.
1. Monitor children with lead levels greater than 10 mcg/dL.
2. Treat children at 6 to 12 months of age.

B. Administer chelating agents: compliance is critical; important to support the child who will be receiving multiple injections.

C. Encourage high fluid intake.

D. Seizure precautions.

Goal: To educate parents and child as to the nature of the disease and provide instruction in ways to maintain homeostasis and reduce lead exposure.

A. Educate parents about the dangers and sources of lead ingestion, including 12 to 24 months being the age of greatest risk.

B. Assist parents in identifying measures to prevent occurrence or recurrence of the problem.

LONG-TERM CARE

Long-term care includes those services provided in institutional settings, such as a nursing home, rehabilitation center, or adult day care program after the acute phase of an illness has passed. Often involves restorative care for clients with chronic health care problems.

A. Types of long-term care facilities.

1. Nursing home: provides services ranging from maintenance to restorative care with skilled nursing, use of certified nursing assistants, licensed practical nurses, and registered nurses.

2. Adult day care facility: client lives at home during the evening and night and spends the day in a facility that provides a range of care from skilled nursing to restorative care.

3. Hospice care: end-of-life care provided in the home and/or client care settings. See End-of-Life Care, Chapter 3.

4. Respite care: a type of short-term care provided to give the primary caregiver (often a family member) a rest from the daily responsibilities of taking care of the client.

5. Rehabilitation center: facility that provides multiple services for the client and family to make adjustments to daily living. Assists the client in achieving as much independence as possible in activities of daily living (ADLs).

6. Home care: nursing care provided in the home to clients who do not need hospitalization but do need additional assistance with medical problems.

7. Adult housing or assisted living centers: facilities for clients to live as independently as possible but still receive supervision, meals, and other services.

CHRONIC ILLNESS

A chronic illness may be defined as an illness or condition that is present for more than 3 months in a year and interferes with daily function and lifestyle. As medical technology continues to increase the life spans of individuals with chronic illnesses, the nurse’s role continues to expand, including providing initial health care and assisting with planning, as well as providing long-term care.

**ALERT** Help client cope with life transitions. Help client and significant others adjust to role changes; assess family’s emotional reaction to a client’s illness; determine ability of family/support system to provide care for client.

Nursing Considerations

A. The majority of clients with extended health care needs have at least two chronic health conditions. These conditions may or may not be interrelated.

B. The focus of care for chronically ill clients is on assisting them to control their health problems and disease symptoms and manage their lifestyle.

1. Prevention and management of medical crises.

2. The control of disease symptoms, which may focus on pain control and comfort measures.

3. Implementation of the prescribed therapeutic regimens.

4. Psychosocial implications and adjustments to lifestyle; frequently, client must deal with social isolation.

5. Adjustments to lifestyle as disease or condition changes.

6. Financial strain caused by paying for medical care and supplies.

7. Coping with strain on marriage and family structure.

C. The majority of clients with chronic health care needs are over 65 years old. The developmental level of these individuals, according to Erikson, is ego integrity versus despair. The feeling of powerlessness is a common problem in the older adult.

D. The nursing process is directed toward identification of nursing actions to assist the older adult to maintain independence and to be as functional as possible.

**NURSING PRIORITY** In planning home health care for a client with a chronic disease, remember that the goal is to assist the client in maintaining control over his or her condition and lifestyle. Frequently, health care providers and family tend to take control of the situation, thus increasing the feeling of powerlessness in the individual.

**Chronically Ill Pediatric Client**

The diagnosis of a child’s chronic illness is a major situational crisis in the family. Available support systems, perception of the problem, and coping mechanisms will ultimately determine the resolution of the crisis.

A. Focus care on the child’s developmental age rather than chronological age. Emphasis should be placed on the child’s strengths rather than disabilities.

B. Assist the child and the family in returning to or establishing a normal pattern of living.
C. Promote the child’s maximum level of growth and development. Current trend is to promote education within child’s peer group.

D. Assess the family’s response to the child’s illness and evaluate for parental overprotection. Overprotection by the parents prevents the child from developing self-esteem, independence, and self-control over the disease and ADLs. Observe for the following parental characteristics that will impede development.
   1. Inconsistency in discipline; disciplinary measures often differ from those used with other children in the family.
   2. Attempts to protect the child from every discomfort, both physical and psychosocial. Frequently restricts play with peers based on fear of injury and/or rejection by peers.
   3. Makes decisions for the child without involving the child.
   4. Does not allow the child the opportunity to learn self-care; frequently, afraid the child cannot handle the requirements for self-care (e.g., a child with diabetes becoming responsible for administration of his or her own insulin).
   5. Continues to do things for the child, even when child is capable of doing them on his or her own.
   6. Self-sacrifice and isolation of family from social interactions.

**NURSING PRIORITY** Determine the needs of the family regarding ability to provide home care after discharge. A pediatric situation may include questions regarding the parents’ or family’s response to the child’s chronic illness.

It is frequently the nurse who assesses the family and the client regarding their immediate needs. The appropriateness of the nurse’s response depends on the nurse-client-family relationship and the environment. Priorities of care must be established, with goals and nursing interventions to meet the client’s immediate health care needs. In an acute care environment, it is difficult to even attempt to meet long-term needs of the client and family. It is important to assist them in identifying community resources and to determine the availability of counseling and home health care to meet the ever-changing needs encountered in dealing with a chronic health condition.

**REHABILITATION**

**ALERT** Assist and intervene in client’s performance of instrumental activities of daily living. Provide support to client and/or family in coping with life changes. Determine client’s ability to perform self-care (ADLs, hygiene, resources); plan with client to meet self-care needs.

Rehabilitation means the restoration of an individual to his or her optimum level of functioning. This includes physical, mental, social, vocational, and economic parameters.

A. Rehabilitation: this term is used when an individual has lost functional ability because of illness or injury.

B. Habilitation: this term is used when an individual has congenital problems or deficiencies.

**Goals of Rehabilitation**

**NURSING PRIORITY** Rehabilitation is an area that affects all levels of nursing care. Primary goals in planning any client’s care are prevention of complications and promotion of independence.

For the rehabilitation client to achieve the highest level of productivity, the rehabilitation process must begin when the condition becomes evident or when the disease is diagnosed.

A. Prevention of deformities and complications.
   1. Maintain function and prevent deterioration of unaffected organs or areas.
   2. Prevent further injury to affected area or organ.
   3. Prevent or reduce complications of immobility.

B. Assist client in performing ADLs with minimum or no assistance, depending on his or her level of disability.

*Examples of ADLs: eating, dressing, bathing.*

C. Assist client with independent activities of daily living (IADLs).

*Examples of IADLs: shopping for groceries, paying bills, lawn care.*

D. Promote continuity of care when the client is discharged or transferred.
   1. Consult with other rehabilitation team members to determine appropriate placement.
   2. Assist client and family through the transitional process.

**NURSING PRIORITY** Client needs to be actively involved in setting goals for his or her care.

**Psychologic Responses to Disability**

Not every client will progress through all stages of grief in an orderly fashion. Clients will fluctuate between emotional crises.

A. Initial responses of confusion, disorganization, and denial represent a state of internal conflict.

B. A period of depression may occur as the client mourns for the loss of or change in body function.

C. An anger stage may occur as client projects blame and hostility on family and health care providers.

D. Adaptation and adjustment will come as the client begins to redirect his or her energy toward coping with the disability.

E. New situations (going home, new job, etc.) may precipitate emotional outbursts and trauma.

F. Some clients will refuse to accept their disability and will not put forth any effort to adapt to everyday living.
HOME HEALTH CARE

Home health care is the provision of health care to clients in the home environment.
A. Levels of home health care.
1. Intensive: clients with serious health care problems requiring the expertise of skilled nursing care.
2. Intermediate: clients with stable health care problems who require a professional level of care to promote rehabilitation through restorative nursing.
3. Maintenance: clients who require assistance with ADLs; the underlying health care problem is stable.
B. Guidelines for home health care personnel.
1. Respect client’s religious, cultural, and ethnic background.
2. As a caregiver/guest in the client’s home, your behavior should reflect sensitivity to the client and family; a pleasant attitude and sense of humor are helpful.
3. Develop family members and significant others as your advocates.
4. Communication with other health care team members is vital to the maintenance of the client’s well-being.
5. Working with more autonomy without immediate hospital support is challenging and requires an increased level of nursing competence for decision making.
6. A Patient’s Bill of Rights is applicable in the home health care setting (i.e., client has the right to disclosure of information concerning his or her condition and care and the right to refuse or stop treatment, etc).

NUTRITION

A. Growth.
1. Birth weight doubles at 6 months, and triples by 1 year.
2. Infant gains only another 4 to 6 lb until 2 years of age.
   \[\text{Birth weight} \times 7 \text{ lb} \times 4 \text{ months} \times 1 \text{ lb} \times 1 \text{ year} \times 7 \text{ lb gained} = 21 \text{ lb} (\text{birth weight tripled})\]

B. Diet.
1. Ideal food is breast milk, because it is nutritionally superior to alternatives, is easier to digest, and contains maternal antibodies.
2. Bottle-fed infants need to be on a formula that is iron-fortified.
3. Breastfed infants do not need additional water.

NURSING PRIORITY A newborn will lose weight for the first few days but should not lose more than 10% of his or her birth weight or take longer than 10 to 14 days to regain it.

NURSING PRIORITY A newborn has a higher fluid requirement in relation to body size than an adult.

1. Whole cow’s milk, low-fat cow’s milk, skim milk, and imitation milks are not recommended for infants younger than 12 months of age.
2. Iron fortified cereal, usually rice, is the first solid food introduced and is recommended around age 4 to 6 months.
3. Strained vegetables and fruits are introduced one at a time to determine infant’s tolerance of each food.
4. Chopped foods are introduced at 6 to 9 months.
5. Strained meats are usually added last because of the difficulty the infant may encounter swallowing.

NURSING PRIORITY Breastfed infants may gain weight at a slower rate than formula-fed infants. Breastfed infants are leaner and often have less body fat than formula fed infants.

1. Formula consumption.
   a. 1 month old: up to 22 oz per day.
   b. 4 months old: up to 30 oz per day.
   c. 6 months old: up to 28 oz per day; solid foods are introduced.
   d. 12 months old: up to 23 oz per day with intake of solid food.

C. Implications for family teaching.

ALERT Assist client with infant feeding. Provide discharge instructions (postpartum and newborn care).

1. Newborns cannot swallow voluntarily until 10 to 12 weeks of age.
2. Extrusion reflex (pushing food out of mouth with tongue) lasts until 4 months; therefore solids are not introduced until around 6 months.
3. When solids are being introduced, offer only one new food per week; avoid multigrain cereals until tolerance is established.
4. Usual progression of food textures is strained to mashed to minced to chopped to cut-up table foods.
5. Increase the use of small-sized finger foods as pincer grasp develops (9 months).
6. Texture of food becomes increasingly important from 6 months to 1 year, but the food must be easily dissolved, (e.g., crackers or zwiebacks).
7. Teach parents not to warm frozen breast milk in the microwave; this may change the composition of the milk.

Toddler
A. Diet.
1. Needs 16 oz of milk daily; more than 24 oz can lead to refusal of other foods and development of a milk anemia (peak incidence at 18 months).
2. Prefers finger foods (e.g., vegetables he or she can pick up, crackers, macaroni).
3. Tends to refuse casseroles, salads, and mixed dishes.
4. After 2 years of age, a child may be given fat-free milk if fat intake is a concern.
5. Struggle for autonomy may be manifested by refusal of food, mealtime negativism, and ritualism.
6. Bribery and rewards for eating should be avoided.
7. Around 18 months of age, a decreased appetite is normal; toddler may become a very picky eater. Don’t mix foods on plate or overfill the plate.
8. Ritualistic behavior frequently carries over into eating habits (e.g., same dish, same spoon, etc).

**Preschooler**

A. Diet.
   1. *Food jags* are common; may refuse to eat anything except one food at each meal.
   2. Continues to refuse casseroles and mixed food items.
   3. Finger foods remain popular.
   4. Do not bribe child to eat or tell child to “clean your plate.” Serve smaller portions; if sufficient amounts are not eaten during mealtimes, eliminate snacks.
   5. Recognize that refusing to eat is a way to attract attention.

**School-Age Child**

A. Diet.
   1. Food intake is more varied.
   2. Child enjoys most foods, with vegetables being the least favorite.

B. Implications for family teaching.
   1. After-school snack: encourage healthy choices such as fruits, raw vegetable sticks, and peanut butter sandwiches.
   2. Appetite is usually good, but a child often does not want to take the time to eat. Sometimes it is helpful to spend a specific amount of time at the table (15 to 20 minutes) to prevent the child from forming the habit of gulping food down.
   3. Avoid using food as a reward for behavior.
   4. Influence of media and peers regarding fast food is increased.
   5. Begin teaching child to recognize high-fat foods.

**Adolescent**

A. Rapid growth rate and maturation changes make the adolescent vulnerable to nutritional deficiencies. Diets in general are deficient in iron, calcium, and vitamin C.
B. Girls’ peak growth occurs between 10 and 14 years of age.
C. Boys’ peak growth occurs between 12 and 15 years of age.
D. Six out of ten girls eat only two-thirds of the nutrients required. Girls tend to be deficient in iron, whereas boys tend to be deficient in thiamine (Table 2-3).

**Adult**

A. Diet.
   1. Energy requirements decrease with age.
      *Example: A 55-year-old man requires 2400 kcal; at age 76, he requires only 2050 kcal.*
      *Example: A 55-year-old woman requires 1800 kcal; at age 76, she requires only 1600 kcal.*
   2. Improved financial status during middle adulthood tends to promote an increased intake of rich foods and frequency of dining out.

B. Nursing implications.
   1. Adherence to a prudent diet pattern.
   2. Promotion and continued maintenance of a regular exercise program.
   3. Reduce sodium intake to 3 to 6 g daily.
   4. Maintain serum cholesterol level below 200 mg/dL.

**Older Adult**

A. Diet.
   1. Encourage a diet low in fat and high in fiber, iron, vitamin C, and thiamine with adequate sources of calcium (see Table 2-3).
   2. If bed rest is prescribed, fluid intake should be as high as 3 to 4 L/day to prevent kidney stones, unless client has fluid restrictions (e.g., client with congestive heart failure).
   3. Because the older adult often has impaired renal function, protein and potassium intake should be evaluated.

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**Table 2-3: VITAMINS AND MINERALS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Function</th>
<th>Food Sources</th>
<th>Nursing Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin A: Retinol</td>
<td>Vision adaptation, night vision, normal bone and tooth formation</td>
<td>Liver, whole milk, egg yolk, yellow/green vegetables</td>
<td>If child eats excessive amounts of yellow vegetables, he or she will have yellow skin color. Important in preterm infants. Children with reduced fat absorption may have deficiency (CF, hepatitis, etc).</td>
</tr>
<tr>
<td>Vitamin D: Cholecalciferol</td>
<td>Promotes normal absorption of calcium and phosphorus</td>
<td>Fish, direct sunlight, enriched foods (e.g., milk products, cereals)</td>
<td>Breastfed infants may need supplement. Expose infant to short periods of mild sunlight.</td>
</tr>
<tr>
<td>Vitamin E: Tocopherol</td>
<td>Production of normal red blood cells, antioxidant</td>
<td>Milk, meat, egg yolks, whole grains, legumes, spinach, broccoli</td>
<td>Preterm infant may need supplement.</td>
</tr>
</tbody>
</table>
### Table 2-3 VITAMINS AND MINERALS—cont’d

<table>
<thead>
<tr>
<th>Name</th>
<th>Function</th>
<th>Food Sources</th>
<th>Nursing Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vitamins: Fat-Soluble</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vitamin K: Aqua-Mephyton</td>
<td>Necessary for production of clotting factors</td>
<td>Pork, liver, green leafy vegetables, tomatoes, egg yolks, cheese</td>
<td>Administer vitamin K prophylactically to newborns. Intake may be decreased in clients receiving warfarin and dicumarol anticoagulants.</td>
</tr>
<tr>
<td><strong>Vitamins: Water-Soluble</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vitamin B₁: Thiamine</td>
<td>Necessary for healthy nervous system, coenzyme for carbohydrate metabolism</td>
<td>Pork, beef, legumes, whole grains, enriched cereals, green vegetables</td>
<td>Clients with increased metabolic rate need more vitamin B₁ (e.g., clients with fever, clients who are pregnant, clients receiving long-term IV therapy). Increase intake in alcoholic clients.</td>
</tr>
<tr>
<td>Vitamin B₂: Pyridoxine</td>
<td>Stimulates heme production for red blood cells, necessary for antibody formation</td>
<td>Organ meats, wheat and corn cereal grains, soybeans, tuna, chicken, salmon</td>
<td>Be aware of drug-induced deficiencies: isoniazid, oral contraceptives.</td>
</tr>
<tr>
<td>Vitamin B₁₂: Cobalamin</td>
<td>Formation of normal red blood cells, nerve function</td>
<td>Meat, liver, fish, poultry, milk, eggs, cheese</td>
<td>Supplement necessary for clients with gastric resection; must have intrinsic factor for normal absorption.</td>
</tr>
<tr>
<td>Vitamin C: Ascorbic acid</td>
<td>Increases absorption of iron for hemoglobin formation, necessary for collagen formation, antioxidant</td>
<td>Citrus fruits, tomatoes, strawberries, potatoes, cabbage, broccoli, melons, spinach</td>
<td>Cook vegetables with a lid and minimum water added. Clients taking aminoglycosides and anticoagulants need increased intake. Need is increased during growth or conditions that cause an increase in metabolism.</td>
</tr>
<tr>
<td><strong>Minerals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iron (Fe)</td>
<td>Normal formation of hemoglobin, essential part of enzymes</td>
<td>Red meat such as liver, pork, and beef; poultry; beans; whole grains; enriched infant formula; enriched cereals and bread</td>
<td>Administer iron between meals; avoid use of antacids; stool will be black. Increase iron intake for clients with iron-deficiency anemias, those on vegetarian diets, pregnant women, infants consuming excessive amounts of milk.</td>
</tr>
<tr>
<td>Calcium (Ca)</td>
<td>Normal formation of bone and teeth; muscle contraction, especially the heart; clotting factors; normal nerve conduction</td>
<td>Dairy products, egg yolks, dark-green leafy vegetables (except spinach)</td>
<td>Adequate intake is needed for normal bone and tooth formation. Administer IV preparations with caution because of effects on heart. Increase supplements during pregnancy and lactation and after menopause.</td>
</tr>
<tr>
<td>Potassium (K)</td>
<td>Acid-base balance, nerve conduction, cardiac muscle contraction</td>
<td>Dried fruits, bananas, citrus fruits</td>
<td>Supplement when client is taking diuretics. Decreased potassium increases effects of digitalis.</td>
</tr>
<tr>
<td>Sodium (Na)</td>
<td>Acid-base balance, fluid balance</td>
<td>Table salt, prepared foods</td>
<td>Sodium deficiency is rare; focus is on decreasing intake except in situations of significant sodium loss (e.g., CF, diaphoresis).</td>
</tr>
</tbody>
</table>
B. Nursing implications.
   1. Alteration in taste and reduced digestive function occur.
   2. Logical sequence of eating food is biting, chewing, and swallowing. New denture wearers should be encouraged to reverse this order: swallow a liquid diet first, then chew soft foods, and finally, bite into regular foods.
   3. The older adult may intentionally restrict fluids because of nocturia or stress incontinence.
   4. Constipation is a chronic problem caused by decreased peristalsis; encourage increased intake of fluids and a high-fiber diet.
   5. Loneliness and depression are often associated with poor appetite.

**OLDER ADULT PRIORITY** It usually takes more time for an older person to eat, and satiety is reached more quickly. Encourage frequent small meals rather than three large meals; providing liquid supplements is also beneficial.

**Nutritional Assessment**
A. Assess nutritional needs.
B. Create client profile: age, sex, height, weight, socioeconomic status, culture.
C. Determine nutritional status: note food habits; observe for physical signs indicative of nutritional status.
D. Determine disease or pathophysiologic process.
E. Be alert to high-risk clients: those who are overweight or underweight; those with congenital anomalies of GI tract; those who have had surgery of the GI tract; those who have problems with ingestion, digestion, absorption; and those receiving IV therapy for 10 days or more.

**Diet Therapy for High-Level Wellness**
A. MyPyramid Plan (Figure 2-4).
B. Prudent diet.

**FIGURE 2-4** MyPyramid food guide. (From the U.S. Department of Agriculture Center for Nutrition Policy and Promotion, April 2005. Available at www.mypyramid.gov).
1. Increased amounts of fresh fruits, vegetables, and whole grains.
2. Reduced amounts of animal fats, cholesterol, refined sugar, salt, and alcohol.
3. Adaptations to MyPyramid (see Figure 2-4).
   a. Meat: includes fish, chicken, turkey, beef, legumes, eggs, nuts, and seeds as a source of protein.
   b. Milk: includes milk, yogurt, and cheese (select low-fat).
   c. Oils: selected fish, nut, and vegetable oils; limit butter, margarine, shortening, and lard.
   d. Fruits and vegetables: eat a variety; go easy on fruit juices.
   e. Vegetables: eat more dark green and orange vegetables.
   f. Grains, breads, and cereals: select whole-grain products and eat at least 3 oz every day.

C. Body mass index (BMI): measures weight as corrected for height.
1. Divide the client’s weight in kilograms by height in meters squared.

2. A client who weighs 165 lb, (75 kg) and is 5 ft 9 in tall (1.8 m) has a BMI of 23.15 (75 divided by $1.8^2 = 23.15$).
3. A client is considered overweight if the BMI is 25 to 30. A BMI greater than 30 is considered as obesity.

**ALERT** Apply knowledge of mathematics to client nutrition (body mass index, BMI). Evaluate and monitor client height and weight.

### Therapeutic Meal Plans

A therapeutic meal plan or prescription diet is a modification of an individual’s normal nutritional requirements based on the changes in his or her physiologic needs as a result of an illness or disease state (Table 2-4).

**ALERT** Consider client choices regarding meeting nutritional requirements and/or maintaining dietary restrictions, including mention of specific food items. Provide/maintain special diets based on the client diagnosis/nutritional needs and cultural considerations.

<table>
<thead>
<tr>
<th><strong>Diet</strong></th>
<th><strong>Purpose/Use</strong></th>
<th><strong>Foods Allowed</strong></th>
<th><strong>Foods Restricted</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear liquid</td>
<td>To begin introduction of food after removal of NG tube, after GI surgery.</td>
<td>Liquids that are clear</td>
<td>Milk products, juice with pulp, any solid food; anything that is not liquid at room temperature</td>
</tr>
<tr>
<td>Full liquid</td>
<td>To begin introduction of food; used after removal of NG tube or after GI surgery</td>
<td>Any food that is liquid at room temperature</td>
<td>Any solid food</td>
</tr>
<tr>
<td>Soft diet</td>
<td>To progress diet as tolerated; food should be easy to chew and swallow</td>
<td>Soft, tender foods easy to swallow and digest</td>
<td>Highly seasoned foods, whole grains, fruits, vegetables, nuts, fried foods</td>
</tr>
<tr>
<td>Mechanical soft diet</td>
<td>To assist clients who cannot chew effectively</td>
<td>Soft foods that are easy to chew and swallow</td>
<td>Tough foods that are difficult to chest and swallow</td>
</tr>
<tr>
<td>Bland diet</td>
<td>To eliminate foods irritating to the digestive system; used in clients after GI surgery and those with peptic ulcer disease and GI inflammatory problems</td>
<td>Milk, custards, refined cereals, creamed soups, potatoes (baked or broiled); all foods are white; no bright-colored food</td>
<td>Highly seasoned or strong-flavored foods; tea, colas, coffee, fruits, whole grains, raw fruit</td>
</tr>
<tr>
<td>Low-residue diet</td>
<td>To decrease fiber or stool in GI tract; acute episodes of enteritis, diarrhea; before and/or after GI surgery</td>
<td>Clear liquids, meats, fats, eggs, refined cereals, white bread, peeled white potatoes, small amount of milk</td>
<td>Cheeses; whole grains; raw fruits and vegetables; high-carbohydrate foods, which are usually high in residue and fiber</td>
</tr>
<tr>
<td>High-residue diet</td>
<td>To prevent constipation and prevent acute diverticulitis</td>
<td>Raw fruits and vegetables; whole grains; high-carbohydrate foods, which are high in residue and fiber</td>
<td>Indigestible fibers: celery, whole corn; seeds such as sesame and poppy; foods with small seeds</td>
</tr>
<tr>
<td>Lactose-free diet</td>
<td>To prevent GI effects of lactose intolerance</td>
<td>Nonmilk products, yogurt</td>
<td>Milk and milk products, processed foods that may have dried milk as filler</td>
</tr>
</tbody>
</table>

Continued
Table 2-4  THERAPEUTIC MEAL PLANS—cont’d

<table>
<thead>
<tr>
<th>Diet</th>
<th>Purpose/Use</th>
<th>Foods Allowed</th>
<th>Foods Restricted</th>
</tr>
</thead>
<tbody>
<tr>
<td>PKU diet</td>
<td>To control intake of phenylalanine, an essential acid; affected children cannot metabolize it</td>
<td>Specially prepared infant formula if infant is not breastfed, vegetables, fruits, juices, some cereals, and breads; may allow 20–30 mg of phenylalanine per kilogram of body weight to fulfill normal growth needs</td>
<td>Most high-protein foods, including meat and dairy products, are significantly reduced</td>
</tr>
<tr>
<td>Low-fat/low-cholesterol diet</td>
<td>To prevent gall bladder spasms, clients with increased cholesterol levels, or problems with malabsorption of fat (cystic fibrosis)</td>
<td>Low-fat or fat-free milk, fruits, vegetables, breads, cereals, reduced amounts of red meat</td>
<td>Egg yolks, whole milk, fried foods, processed cheese, shrimp, avocados, pastries, butter</td>
</tr>
<tr>
<td>Low-sodium diet</td>
<td>To reduce sodium intake to decrease retention of fluids, especially in clients with cardiac disease or hypertension</td>
<td>Salt-free preparations, fresh fruits, vegetables with no added salt</td>
<td>Processed foods, smoked or salted meats, prepared foods, frozen and canned vegetables, breads and pastries</td>
</tr>
<tr>
<td>High-potassium diet</td>
<td>To replace lost potassium in clients taking diuretics and/or digitalis</td>
<td>Dried fruits, fruit juices, fresh fruits (e.g., bananas, apricots, grapefruit, oranges, and tomatoes)</td>
<td>No specific restrictions</td>
</tr>
<tr>
<td>Renal diet</td>
<td>Control potassium, sodium, and protein levels in clients with renal problems</td>
<td>High biological protein (limited intake): eggs, milk, meat; decreased sodium products and decreased potassium (cabbage, peas, cucumbers are low in potassium)</td>
<td>High-potassium foods (dried fruits), high-sodium foods (processed foods), salt substitutes with high-potassium content</td>
</tr>
<tr>
<td>Low-purine diet</td>
<td>To decrease serum levels of uric acid; prescribed for clients with gout and high levels of uric acid</td>
<td>Vegetables, fruits, cereals, eggs, fat-free milk, cottage cheese</td>
<td>Glandular meats, fish, poultry, nuts, beans, oatmeal, whole wheat, cauliflower</td>
</tr>
</tbody>
</table>

GI, Gastrointestinal; NG, nasogastric; PKU, phenylketonuria.

Appendix 2-1  DEVELOPMENTAL TASKS

<table>
<thead>
<tr>
<th>STAGE OF DEVELOPMENT</th>
<th>ERIKSON’S DEVELOPMENTAL TASKS</th>
<th>PLAY/SOCIAL ACTIVITIES</th>
<th>HEALTH PROMOTION/MAINTENANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infancy (birth to 1 year)</td>
<td>Trust versus mistrust. Parent-child bonding is crucial to the foundation for building a basic sense of trust. It is essential for primary needs to be gratified promptly.</td>
<td>Involved in solitary play activities. Provide toys that are soft, cuddly, and colorful; mobiles are very popular.</td>
<td>Encourage routine immunizations. Teach safety precautions related to burns, poisonings, accidents, and drowning.</td>
</tr>
<tr>
<td>Toddler (1 year to 3 years)</td>
<td>Autonomy versus shame and doubt. Child relies heavily on parental responses for support.</td>
<td>Toilet training is the major developmental accomplishment. Involved in parallel play activities. Provide toys that can be pulled, stacked together.</td>
<td>Continue to monitor safety by “childproofing” the home. Increased incidence of respiratory tract and ear infections.</td>
</tr>
<tr>
<td>Early childhood (3 years to 6 years)</td>
<td>Initiative versus guilt. Child uses imagination and creativeness.</td>
<td>Follows rules, compares self to others.</td>
<td>Progresses from solitary play to more cooperative play with others in a group. Respiratory tract infections are common illnesses as child goes to school. Booster immunizations are important.</td>
</tr>
<tr>
<td>Middle childhood (6 years to 12 years)</td>
<td>Industry versus inferiority. “Chum” period; progresses from self-centered to more other-directed behavior. Reality testing improves.</td>
<td>Younger child plays by assuming roles as a fireman, doctor, nurse, teacher, etc. Older child involved with bicycle riding, table games, sports, etc.</td>
<td></td>
</tr>
</tbody>
</table>
STAGE OF DEVELOPMENT | ERIKSON’S DEVELOPMENTAL TASKS | PLAY/SOCIAL ACTIVITIES | HEALTH PROMOTION/MAINTENANCE
---|---|---|---
Adolescence (12 years to 18 years) | Identity versus role confusion. Completion of previous tasks successfully will lead to a secure sense of self. | Peer groups are most important, with behavior being defined more by group members. Social activities include dating. | Mood swings common. Accidents associated more with driving cars and motorcycles.
Young adulthood (18 years to 44 years) | Intimacy versus isolation. Disturbances in sex role identity may occur because of inadequate resolution of identity crisis. | Involvement with social network of peers from community, work, etc. Appraisals by others affects sense of identity and self. | Stress-related illnesses and drug and alcohol abuse are common during this period. Another health issue is pregnancy.
Middle adulthood (45 years to 64 years) | Generativity versus stagnation. Reassessment of life goals. Mutuality among peers. | Leisure time becomes more of a concern. Key socializing agents are lovers, spouses, and close friends. Retirement occurs. | Menopause occurs, along with chronic health problems (e.g., diabetes, cancer).
Older adulthood (65 years and older) | Ego integrity versus despair. If person viewed life as worthwhile, will be better equipped to deal with aging. | Central process is introspection with the favorable outcome of wisdom along with a detached yet active concern with life in the face of death. | Safety concerns reoccur because of impaired sensory input. Alterations in all major body systems occur.

Study Questions Health Implications Across the Life Span

1. Which behavior indicates that an 18-month-old infant is developing a nonadaptive reaction to hospitalization?
   1. Cries when the mother leaves
   2. Ignores mother when she arrives to visit
   3. Eats using fingers rather than utensils
   4. Is afraid of the dark

2. An 8-month-old infant is sitting contentedly on the mother’s lap. The nurse is preparing to perform a well-baby checkup. Which of the following steps should the nurse do first?
   1. Measure the head circumference.
   2. Obtain body weight and height.
   3. Auscultate heart and lung sounds.
   4. Check pupil response to light.

3. When obtaining a health history from an older client, the nurse must take which characteristics of the older client into consideration?
   1. The older client responds to pain sensation with the same intensity as a young client.
   2. Auditory acuity is the most common sensory loss in the older adult population and may hinder the interview.
   3. The older client requires a lot of repetition because the IQ declines with the aging process.
   4. An older client’s response time to answering a question is just as quick as that of a young client.

4. Which of the following actions would the nurse recommend to provide a 12-month-old infant with nutrients for growth?
   1. Exclude milk from the infant’s diet until he or she begins to like other foods.
   2. Offer the infant small amounts of meat and vegetables before offering milk.
   3. Withhold desserts until the infant has eaten his or her vegetables.
   4. Mix strained meat and vegetables into the milk given to the infant.

5. What are appropriate toys for an 18-month-old infant to have for play while in a croup tent?
   1. Rattles
   2. Stacking rings
   3. Crayons and coloring book
   4. Soap bubbles

6. The nurse is discussing nutrition with a woman who is 55-years-old and has a history of hypertension. What food choices would be best to help meet the dietary needs of this client?
   1. Cheese and macaroni, fresh fruit, and milk shake
   2. Cottage cheese, glass of skim milk, and fresh spinach salad
   3. Roast beef with whole wheat bread, potato, and lettuce salad
   4. Cheeseburger, french fries, and milk shake
7. The nurse is serving a food tray to a client who has glomerulonephritis and azotemia. Which food selection would the nurse question?  
1 Bread and rice  
2 Dried peaches and apricots  
3 Bran muffin and eggs  
4 Apples and cucumbers

8. Planning anticipatory guidance is an important nursing function. Considering the teaching for the family of an 18-month-old, which comment by the mother indicates she understands safety concerns?  
1 “I will keep an eye on her all of the time; I will not let her out of my sight.”  
2 “When she says ‘no-no,’ then she understands right and wrong.”  
3 “I will need to be sure that the locks on the medicine cabinet are secure.”  
4 “I’ll be sure to give her syrup of ipecac if she swallows any poison.”

9. The nurse is assisting in the discharge preparation of a new mother and her infant. The mother asks when the immunizations will begin for her infant. What is the best nursing response?  
1 The first series of the DTaP vaccine will be given prior to her discharge.  
2 DTaP and varicella vaccines will be administered around 3 months of age.  
3 The series of infant immunizations will begin around 6 months of age.  
4 Immunizations are recommended to begin at 2 months old.

10. The nurse is assessing an infant on the first office visit after birth. The mother asks the nurse when the chicken pox vaccination should be given. What is the best nursing response?  
1 The infant received this vaccination at the hospital when he was born.  
2 The varicella vaccination will be given at the infant’s 1-month checkup.  
3 The infant should receive the immunization immediately if he is exposed to varicella.  
4 The varicella vaccination is administered after 12 months.

11. A mother brings her 5-year-old daughter to the wellness clinic complaining of a rash covering the child’s body. The nurse recognizes the rash as chicken pox (varicella), which is characterized by:  
1 Clusters of small blisters  
2 Raised, reddened areas on the upper trunk  
3 A maculopapular rash  
4 Petechiae

12. A client comes to the emergency department with a deep penetrating wound he received in his garden. What is an important nursing action?  
1 Rinse the wound with antibiotic solution.  
2 Administer gamma globulin intramuscularly.  
3 Anticipate notifying poison control for plant toxicology.  
4 Determine when the client received his last tetanus injection.

13. An infant with a diagnosis of acquired immunodeficiency disease syndrome (AIDS) has a nursing diagnosis of altered growth and development on the nursing care plan. Which nursing measure would enhance growth and development in the infant?  
1 Provide opportunities for the family to participate in the infant’s care.  
2 Stimulate the infant with a mobile in the crib.  
3 Weigh the infant daily and count diapers for estimation of fluid loss.  
4 Provide nutritional supplements throughout the day.

14. In clients 65 years and older, how is death most commonly viewed?  
1 As a romanticized situation  
2 As a time of disassociation  
3 As a part of life  
4 As a time of denial

15. A client who is scheduled for a colonoscopy is instructed to take nothing except clear liquids for 6 hours before the procedure. What comment by the client would indicate to the nurse that the client does not understand the concept of clear liquids?  
1 “I can have beef or chicken broth.”  
2 “Lemon-, orange-, or lime-flavored gelatin is okay.”  
3 “I can have a small amount of vanilla ice cream.”  
4 “I can have tea and coffee with sugar.”

16. Which of the following is an appropriate teaching topic for the parents of a school-age child?  
1 Using a night light to allay night terrors  
2 Encouraging the child to dress without help  
3 Explaining the components of a healthy diet  
4 Reviewing information about accident prevention

Answers and rationales to these questions can be found in the section at the end of the book titled Chapter Study Questions: Answers and Rationales.