

**Growth and Development** A person's age and musculoskeletal and nervous system development affect posture, body proportions, body mass, body movements, and reflexes. For apparently healthy people, the prescription can immediately include aerobic conditioning, strength training, and stretching. Intensity on most if not all days of the week. Thorough chemical evaluations should be completed prior to recommending any exercise regimen. In addition, the report indicates that exercise can prevent gestational diabetes, even in very obese women. Nutrition Both undernutrition and overnutrition can influence body alignment and posture. Undernourished people may have vitamin D deficiency causes muscle weakness and fatigue, bone deformity during growth. Inadequate calcium intake and vitamin D synthesis and intake increase the risk of osteoporosis. Obesity can distort movement and stress joints, adversely affecting posture, balance, and joint health.

**Personal Values and Attitudes** Whether people value regular exercise is often the result of family influences. In families that incorporate regular exercise in their daily routine or spend time together in activities, children learn to value physical activity. Sedentary families, on the other hand, participate in sports only as spectators, and this lifestyle is often transmitted to their children. With the increase in TV, computer, and video activities, youth are increasingly sedentary with attendant declines in health. Values about physical appearance also influence some people's participation in regular exercise. People who value a muscular build or physical attractiveness may participate in regular exercise programs to produce the appearance they desire. Choice of physical activity or type of exercise is also influenced by values. Choices may be influenced by geographic location and cultural role expectations. For many, thinking of exercise more as "recreational movement," "enhancement Well-being" and essential part of daily self-care" may help overcome perceptions that exercise is drudgery.

Nurses must assess each client for potentially motivating factors such as the following: degree of fun or challenge of any given activity; use of music; opportunities for socializing and group cohesion and having an exercise partner; positive sensations of the exercise experience; pleasurable feelings associated with increased stress reduction; increased energy and fitness; mastering the activity; goal setting and progress; daily logs or weekly written schedules; competition with oneself or others; promotion of a sense of accomplishment; weight management; emphasis on self-talk about how exercise will prevent fatigue, depression, weight gain, or anxiety; and the need to explore less intense and challenging, noncompetitive activities (Oberg, 2007).

**Clients Who experience orthostatic hypotension, impaired equilibrium, and gait disturbance should begin exercising in supervised environments:** For example, an older sedentary person may need to begin with a Prescription of 13:18:11: emphasizes stretching, strengthening, and developing the 10th rather than aerobic training. The most recent recommendations from the American College of Obstetricians and Gynecologists (Olson, Sikkat Hayman, Novak, & Stavig, 2008) suggest that healthy pregnant women should exercise 30 minutes or more with moderate intensity. The design of individualized exercise prescriptions that tailor exercise mode and dose and address these varying states with each person will ensure greater adherence to an exercise program (Ruppar & Schneider, 2007). Initially, walking involves a wide stance and unsteady gait, thus the term toddler. Nurses, taking into account motivation to participate, medical conditions and level of fitness, and safety issues, can use individualized exercise prescriptions to encourage exercise and activity in all of their

clients. From 6 to 12 years of age, refinement of motor skills continues and exercise patterns for later life are generally determined. In adolescence, growth spurts and behaviors such as carrying heavy book bags on one shoulder and extended computer use may result in structural changes that often persist into adulthood. For example, preschoolers master riding a tricycle, dancing, running, jumping, using crayons to draw, fastening or using zippers, and brushing their teeth. Adults between 20 and 40 years of age generally have few physical changes affecting mobility, with the exception of pregnant women. Exercise behavior may be improved by addressing an individual's awareness of their physiological response to activity and exercise. All extremities are generally flexed but can be passively moved through a full range of motion. As the neurologic system matures, control over movement progresses during the first year. Pregnancy alters center of gravity and affects balance. Motivational states influence our behavior and choices, and vary widely from day to day. In those who are building toward a fitness goal, these parameters will change over time to increase the client's level of conditioning (Oberg, 2007). Gross motor development occurs in a head-to-toe fashion, that is, progression from head control, to crawling, to pulling up to a standing position, to standing, and to walking, usually after the first birthday. Immobility can impair the social and motor development of young children. Many schools provide physical education and competitive sports programs to enhance physical activity. Prescriptions should include frequency of the activity, intensity, and time (the FIT model). Newborn movements are reflexive and random. Gross motor development precedes fine motor skills. Posture in school-age children is usually excellent. Options include informal and fun activities such as dancing to music. The contralateral motion of crawling, however brief, is an important building block for walking. From ages 1 to 5 years, both gross and fine motor skills are refined.