



1.3 Glossary of Terms

- ❑ **Adolescence** is a difficult period to define in terms of onset and termination. During this period, most bodily systems become adult both structurally and functionally. Structurally, adolescence begins with an acceleration of the rate of growth in stature, which marks the onset of the adolescent growth spurt. The rate of statural growth reaches a peak, begins a slower or decelerative phase, and finally terminates with the attainment of adult stature. Functionally, adolescence is usually viewed in terms of sexual maturation, which begins with changes in the neuroendocrine system prior to overt physical changes and terminates with the attainment of mature reproductive functions.
- ❑ **Ancillary capacities** refer to the knowledge and experience base of an athlete and includes warm-up and cool-down procedures, stretching, nutrition, hydration, rest, recovery, restoration, regeneration, mental preparation, and taper and peak. The more athletes know about these training and performance factors, the more they can enhance their training and performance levels. When athletes reach their genetic potential and physiologically cannot improve any more, performance can be improved by using the ancillary capacities to full advantage.
- ❑ **Childhood** ordinarily spans the end of infancy – the first birthday – to the start of adolescence and is characterized by relatively steady progress in growth and maturation and rapid progress in neuromuscular or motor development. It is often divided into early childhood, which includes pre-school children aged one to five years, and late childhood, which includes elementary school-age children aged six through to the onset of adolescence.
- ❑ **Chronological age** refers to the number of years and days elapsed since birth. Growth, development, and maturation operate in a time framework; that is, the child's chronological age. Children of the same chronological age can differ by several years in their level of biological maturation. The integrated nature of growth and maturation is achieved by the interaction of genes, hormones, nutrients and the physical and psychosocial environments in which the individual lives. This complex interaction regulates the child's growth, neuromuscular maturation, sexual maturation and general physical metamorphosis during the first two decades of life.
- ❑ **Developmental Age** refers to the interrelationship between growth and maturation in relation to the passage of time. The concept of development also includes the social, emotional, intellectual, and motor realms of the child. Developmental age reflects the true overall situation of an individual's growth and maturation and may be thought of as an index of development stated as the age in years of an individual and determined by specified standardized measurements such as motor and mental tests and body measurements. The terms "growth" and "maturation" are often used together and sometimes synonymously. However, each refers to specific biological activities. Growth refers to observable, step-by-step, measurable changes in body size such as height, weight, and percentage of body fat. Maturation refers to qualitative system changes, both structural and functional in nature, in the organism's progress toward maturity; for example, the change of cartilage to bone in the skeleton.





- ❑ **Peak height velocity (PHV)** is the maximum rate of growth in stature during growth spurt. The age of maximum velocity of growth is called the age at PHV.
- ❑ **Periodization** is time management. As a planning technique it provides the framework for arranging the complex array of training processes into a logical and scientifically based schedule to bring about optimal improvements in performance.
- ❑ **Physical Literacy** refers to the mastering of fundamental motor skills and fundamental sport skills.
- ❑ **Post-natal growth** is commonly, although sometimes arbitrarily, divided into three or four age periods, including infancy, childhood, adolescence and puberty.
- ❑ **Puberty** refers to the point at which an individual is sexually mature and able to reproduce.
- ❑ **Skeletal age** refers to the maturity of the skeleton determined by the degree of ossification of the bone structure. It is a measure of age that takes into consideration how far given bones have progressed toward maturity, not in size, but with respect to shape and position to one another.
- ❑ **Speed** may be thought of as the ability to move a limb, limbs, or the whole body at the greatest possible velocity. In addition, speed involves the capability to react to a stimulus or signal (such as a starting signal, stumble, or fake/deke) in the shortest possible time.
- ❑ **Trainability** refers to the generic endowment of athletes as they respond individually to specific stimuli and adapt to it accordingly. Malina and Bouchard (1991) defined trainability as “the responsiveness of developing individuals at different stages of growth and maturation to the training stimulus.”
- ❑ **Window of Optimal Trainability** refers to a point in the development of a specific behaviour when experience or training has an optimal effect on development. The same experience, introduced at an earlier or later time, has no effect on or retards later skill acquisition.

