

Figure 1
The Stages of LTAD



Figure 2
Circle of a Physically Active Life

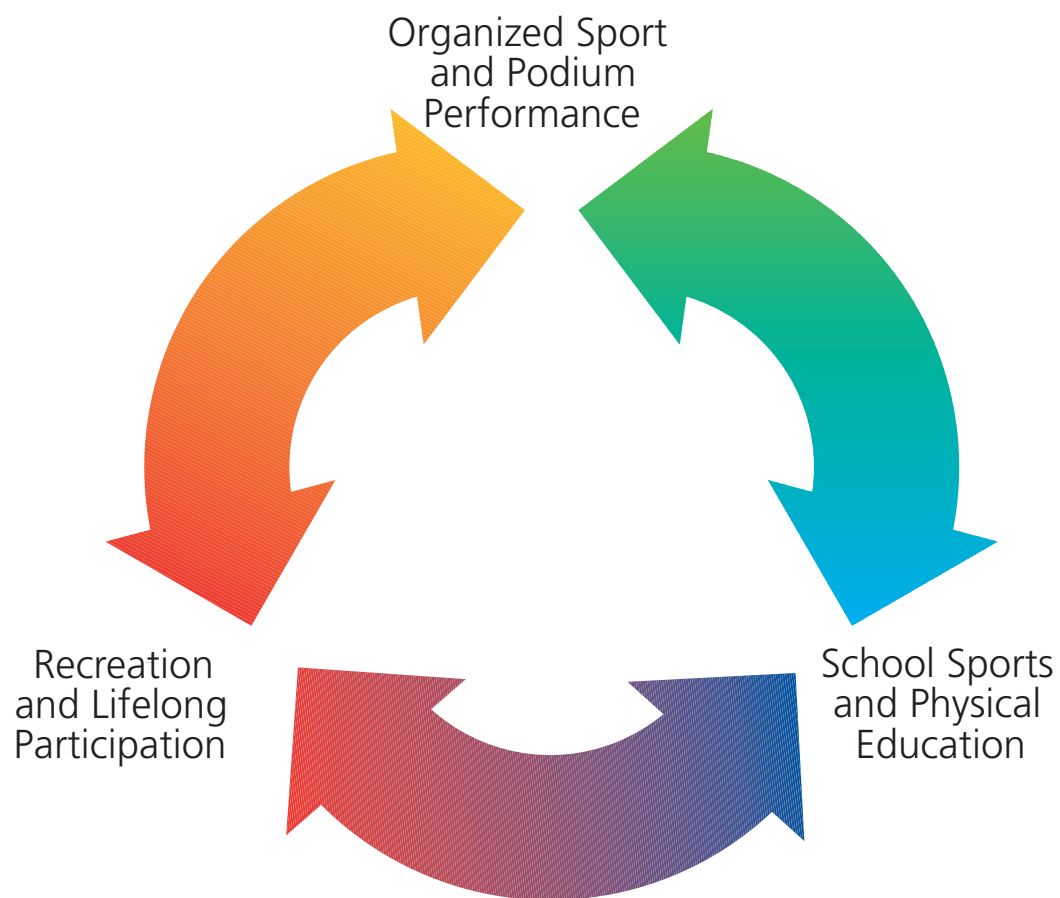


Figure 3
Participation In Lifelong Physical Activity (Way et al, 2005)

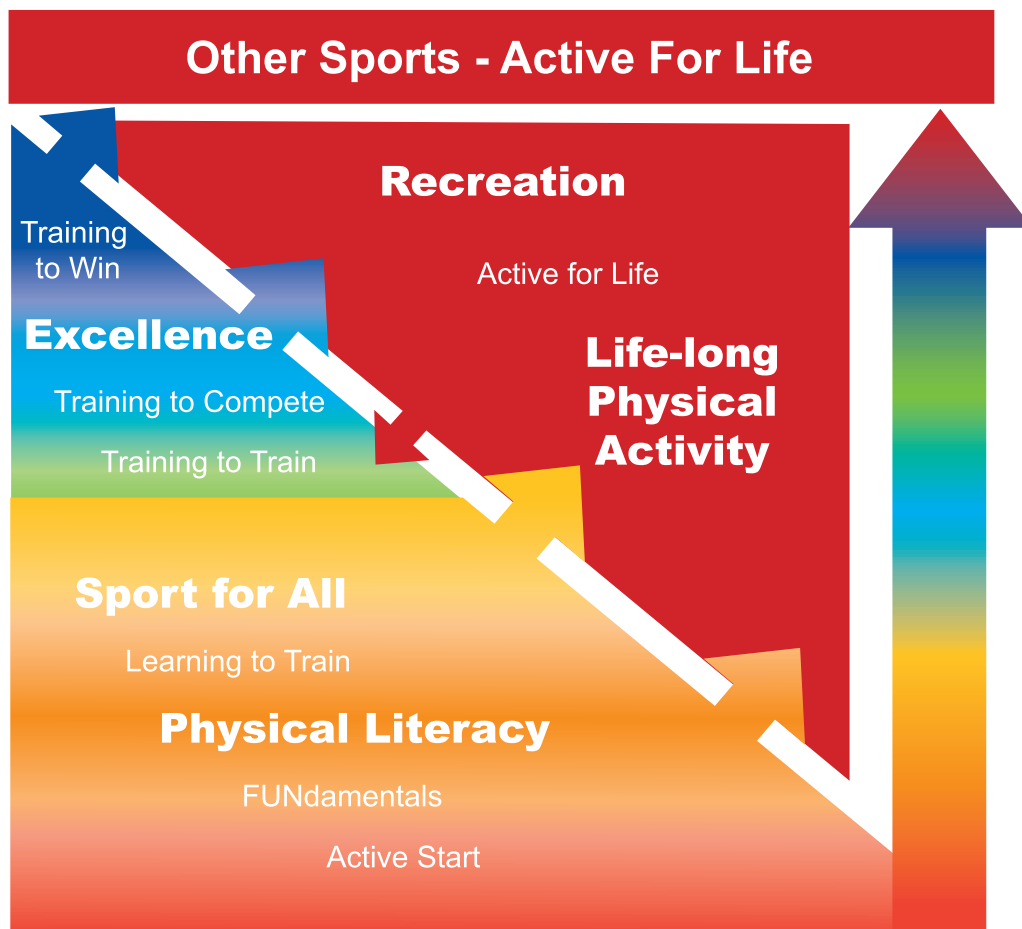


Figure 4
Maturation in Girls and Boys

(Adapted from "Growing Up" by J.M. Tanner Scientific American 1973)

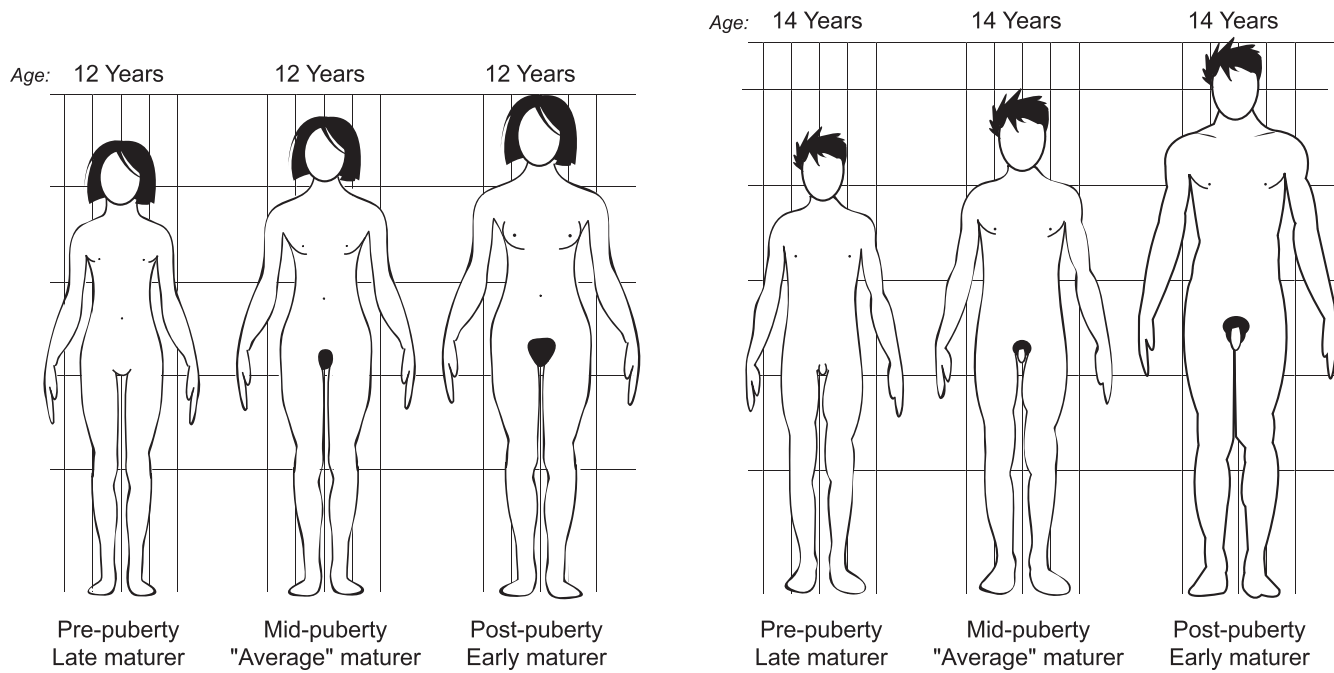
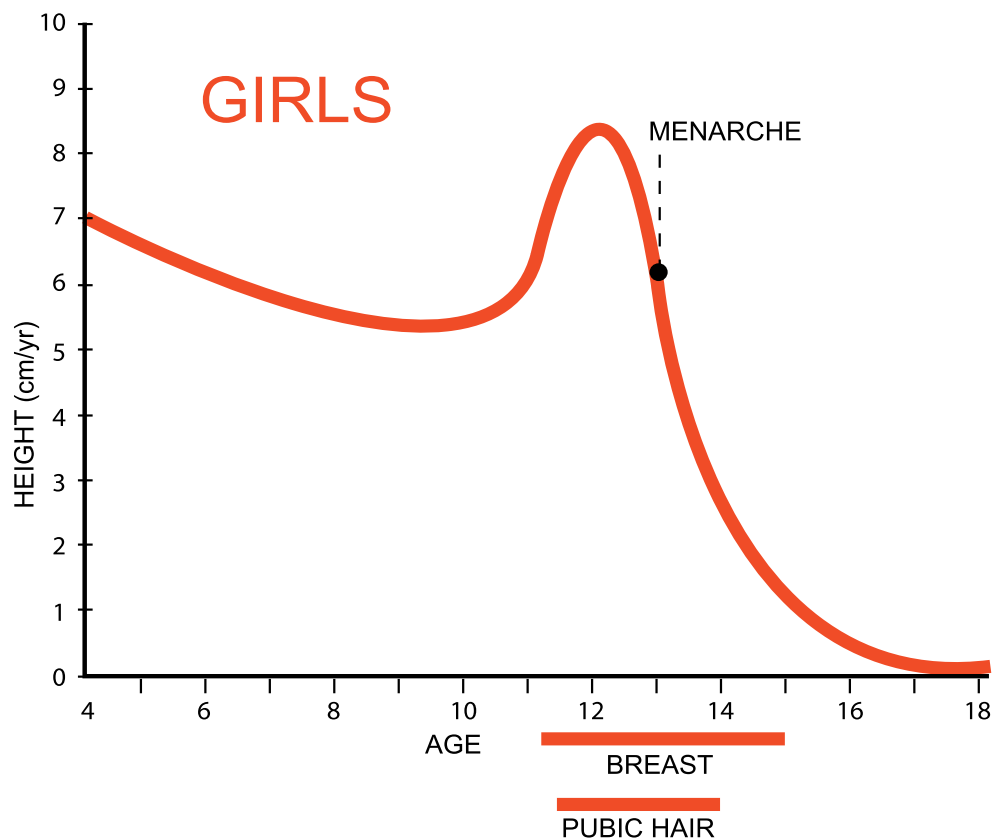
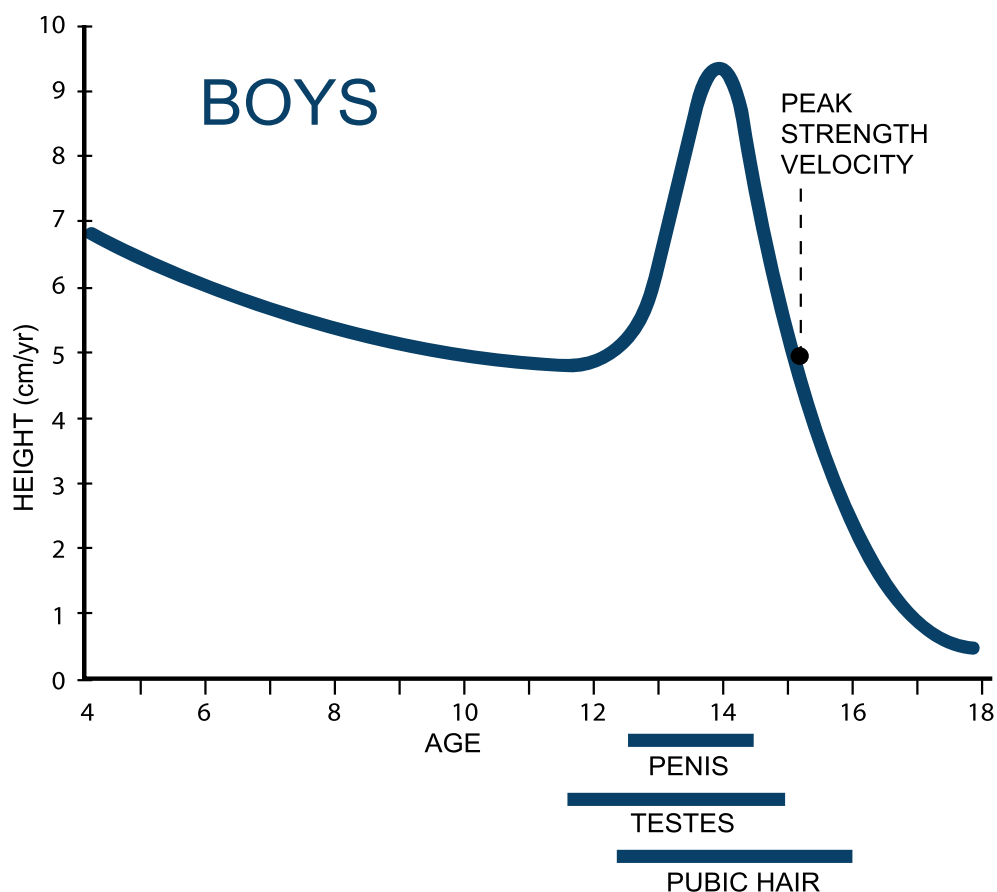


Figure 5
Maturity Events in Girls (Modified after Ross et al.1977)



PHV in girls occurs at about 12 years of age. Usually the first physical sign of adolescence is breast budding, which occurs slightly after the onset of the growth spurt. Shortly thereafter, pubic hair begins to grow. Menarche, or the onset of menstruation, comes rather late in the growth spurt, occurring after PHV is achieved. The sequence of developmental events may normally occur 2 or even more years earlier or later than average.

Figure 6
Maturity Events in Boys (Modified after Ross et al.1977)



PHV in boys is more intense than in girls and on average occurs about 2 years later. Growth of the testes, pubic hair, and penis are related to the maturation process. Peak Strength Velocity (PSV) comes a year or so after PHV. Thus, there is pronounced late gain in strength characteristics of the male athlete. As with girls, the developmental sequence for male athletes may occur 2 or more years earlier or later than average. Early maturing boys may have as much as a 4-year physiological advantage over their late-maturing peers. Eventually, the late maturers will catch up when they experience their growth spurt.

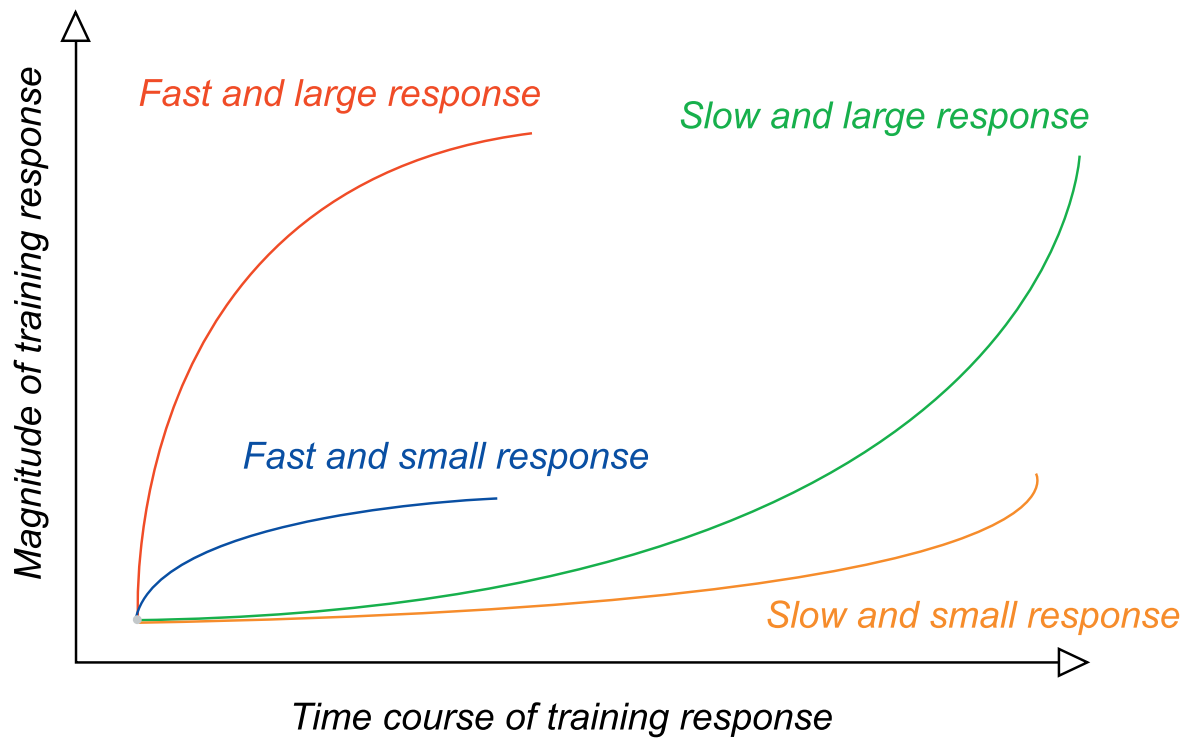


Figure 7 illustrates the evidence to date that supports the fact that there is a high degree of variation in the trainability of humans (athletes), both from the standpoint of the magnitude of change and the time course of response to a given stimulus. This probably reflects the 'elasticity' of response to various stimuli and human diversity (as largely dictated by the underlying genetic matrix and supported by the environment in which an individual is immersed) (Norris & Smith, 2002).

Figure 8
Pacific Sport - Optimal Windows of Trainability (Balyi and Way, 2005)

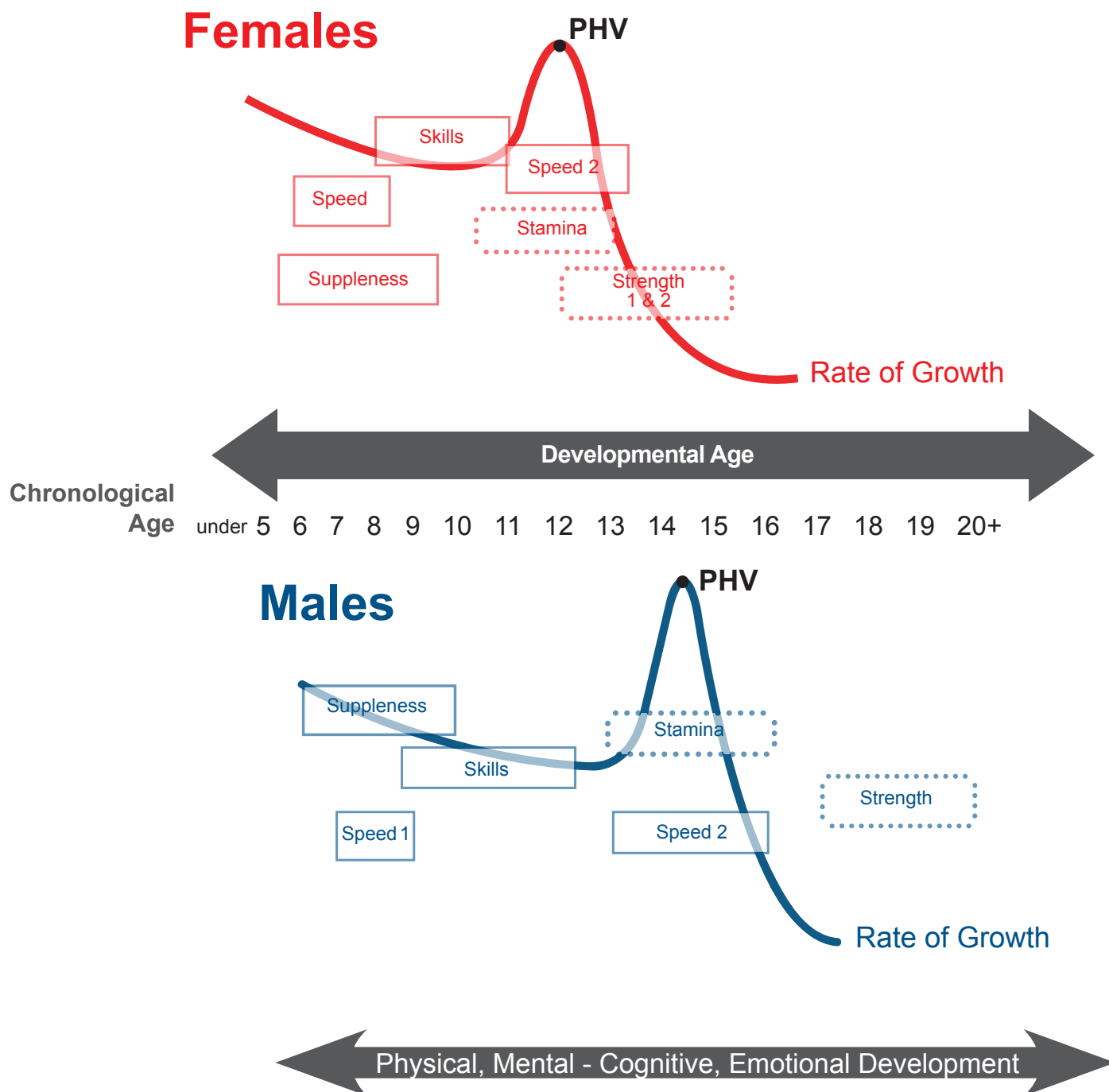


Figure 9
Horizontal and Vertical Intergration9 Expanded S's
- The Art and Science of Coaching (Balyi, 2004 and Norris, 2000)

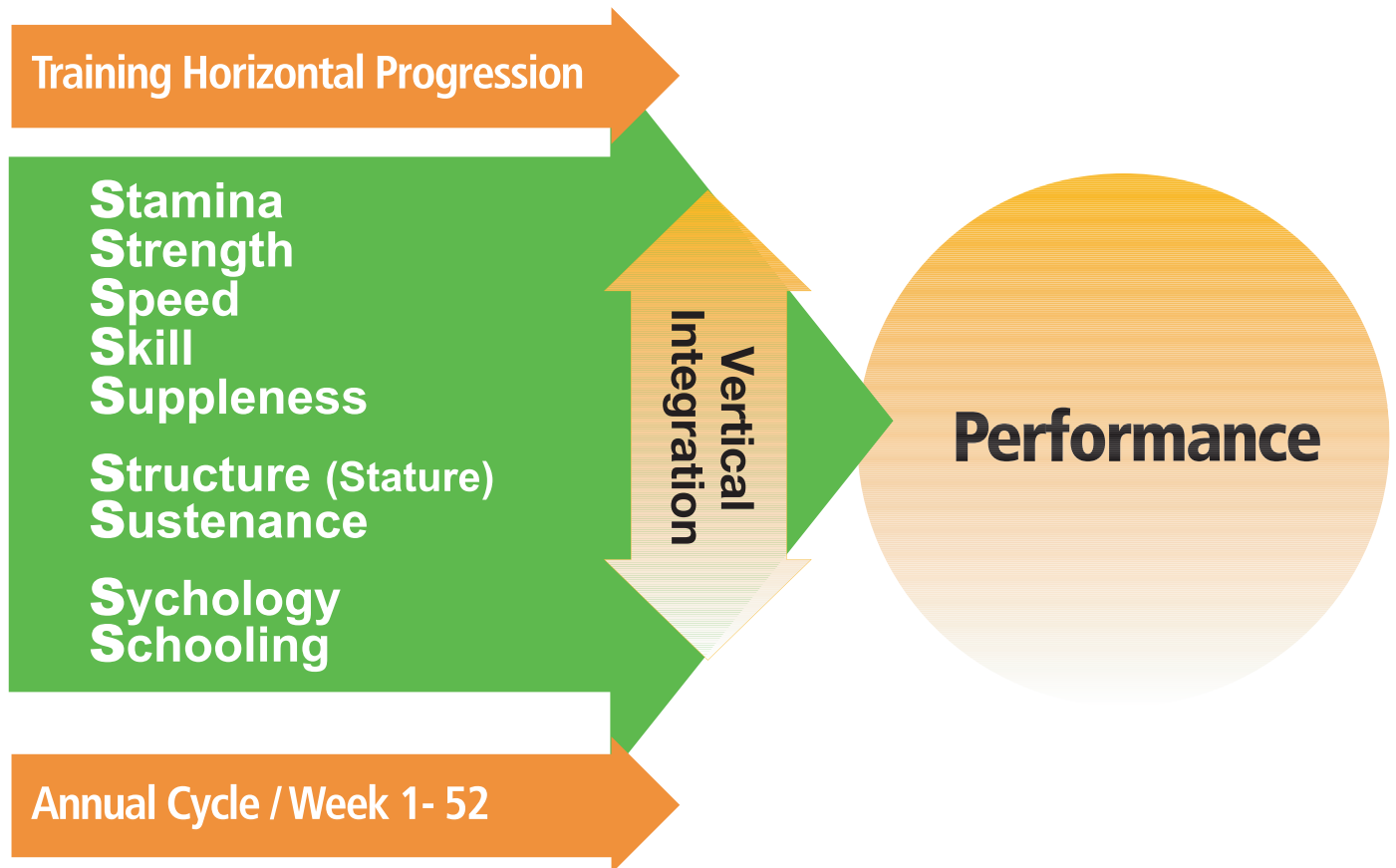


Figure 10
System Alignment and Integration (Way et. al 2005)

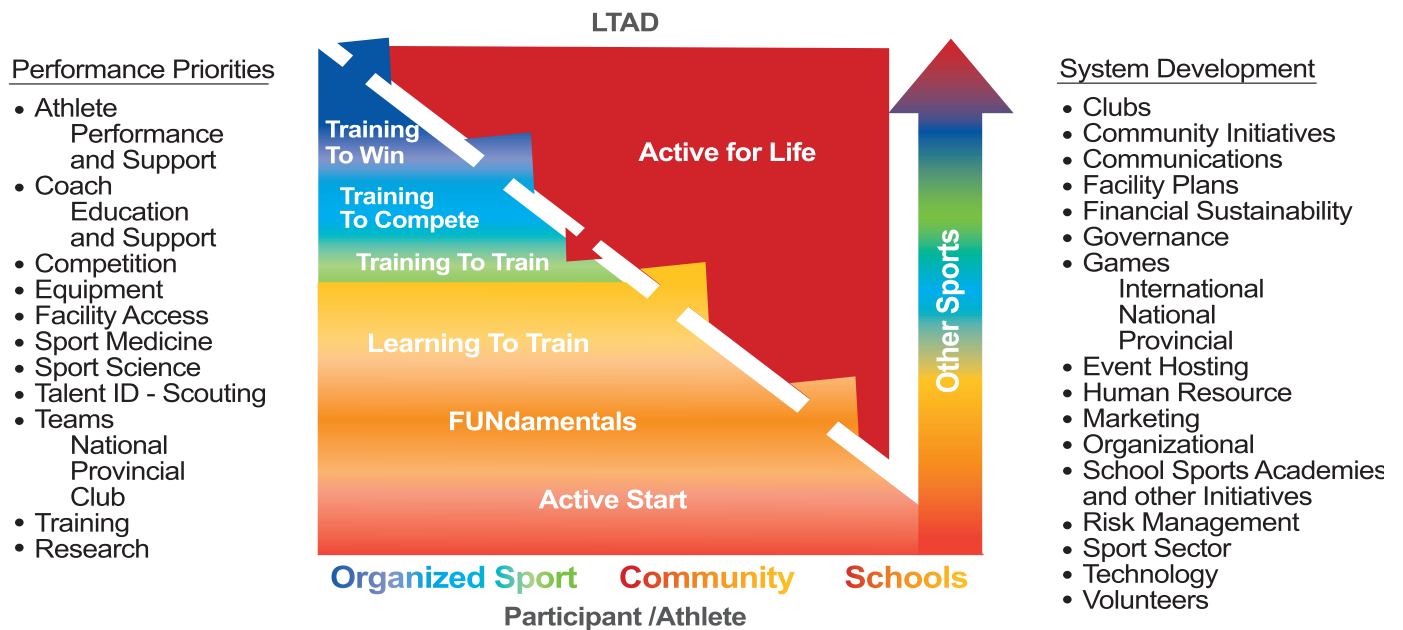


Figure 11
Strategic Leadership for Sport (Sport England, 2004 - Modified by Higgs & Way 2005)

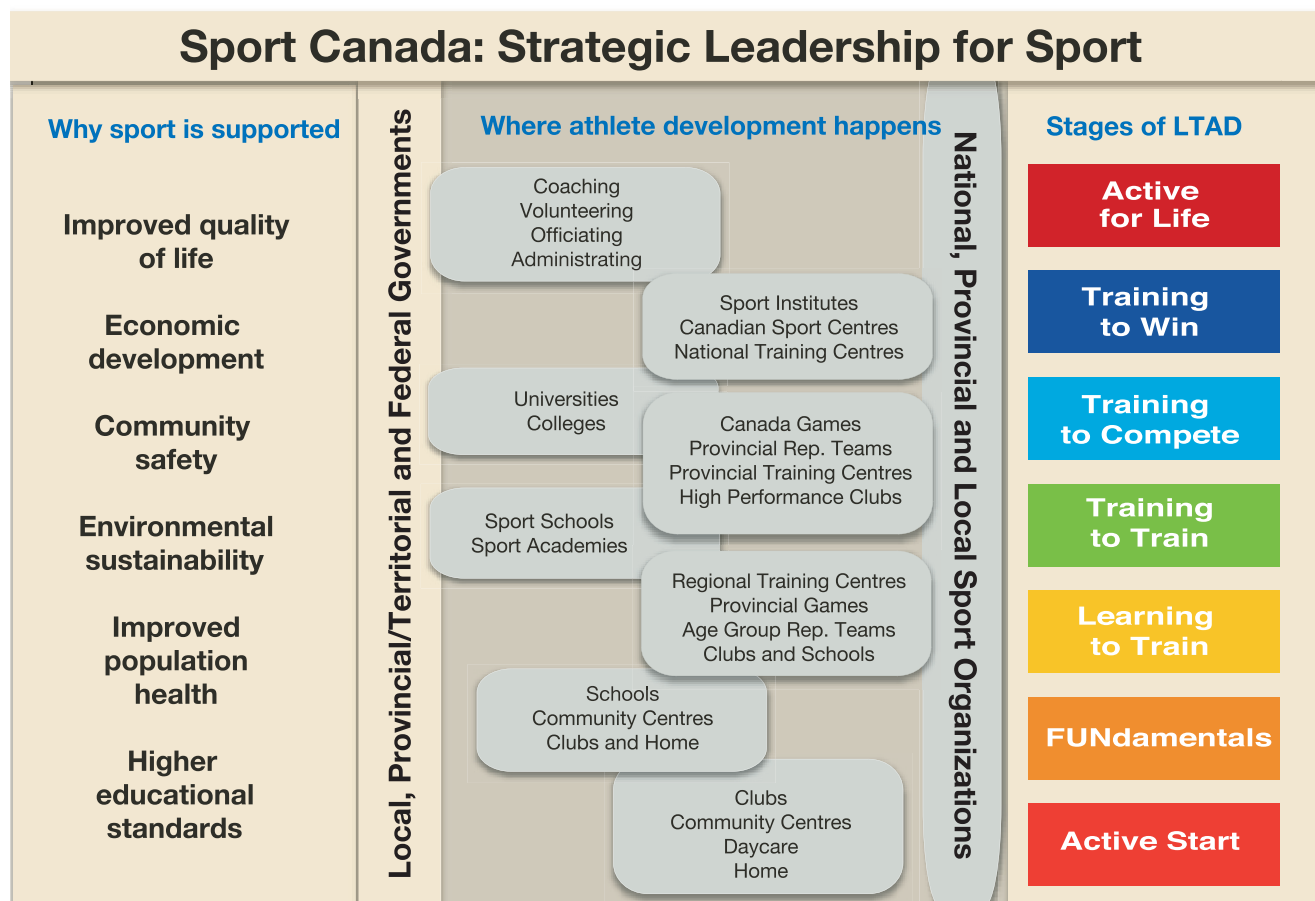


Table 1
Fundamental Movements and Skills That Underpin Physical Literacy
Including the Four Different Environments: Earth, Water, Air, and Ice
 (Jess 1999, adapted Balyi and Way 2004)

Travelling Skills	Object Control Skills	Balance Movements
• Boosting • Climbing • Eggbeater • Galloping • Gliding • Hopping • Ice Picking • Jumping • Leaping • Poling • Running • Sculling • Skating • Skipping • Sliding • Swimming • Swinging • Wheeling	Sending: • Kicking • Punting • Rolling (ball) • Strike (ball, puck, ring) • Throwing Receiving: • Catching • Stopping • Trapping Travelling with: • Dribbling (feet) • Dribbling (hands) • Dribbling (stick) Receiving and Sending: • Striking (bat) • Striking (stick) • Volleying	• Balancing/Centering • Body Rolling • Dodging • Eggbeater • Floating • Landing • Ready position • Sinking/Falling • Spinning • Stopping • Stretching/Curling • Swinging • Twisting/Turning

Table 2
The phases of an annual plan for a single or double periodization.

Five Phases of A Single Periodized Annual Plan

General Preparation Phase (GPP)
Specific Preparation Phase (SPP)
Pre-Competition Phase (PCP)
Competition Phase *Peak* (CP)
Transition Phase (TP)

Eight Phases of A Double Periodized Annual Plan

General Preparation Phase (GPP)
Specific Preparation Phase (SPP) 1
Pre-Competition Phase (PCP) 1
Competition Phase (CP) 1 *Peak One*
Specific Preparation Phase (SPP) 2
Pre-Competition Phase (PCP) 2
Competition Phase (CP) 2 *Peak Two*
Transition Phase (TP)

Table 3
Training to Competition Ratios

Stages	Recommended Ratio
Active Start	No specific ratios
FUNdamentals	All activity FUN based
Learning to Train	70% training to 30% competition
Training to Train	60% training to 40% competition
Training to Compete	40% training to 60% actual competition and competition specific training
Training to Win	25% training to 75% actual competition and competition specific training
Active for Life	Based on individual's desire