WEB OF SCIENTIST: INTERNATIONAL SCIENTIFIC RESEARCH JOURNAL
ISSN: 2776-0979 (Volume 2, Issue 6, June, 2021)

A PERSON'S HEALTHY LIFESTYLE AND SOCIAL ADJUSTMENT

Bobokulov Bakhtiyor Mamasodiq o`gli,
1st year Masters of Physical Culture Faculty of Termez State University

Ziyodullaeva Munira Eshniyozovna
1st year Masters of Physical Culture Faculty of Termez State University

Annotation
However, there are trends for greater absolute strength gains in adolescents. Puberty triggers major physiological and hormonal changes (38). Increases in circulating anabolic hormones during puberty considerably affect responses to strength training, particularly the scope for tissue hypertrophy. This is the case especially among adolescent boys. However, the power per kilogram (i.e., body mass) that adolescents are capable of generating is still less than that of adults.
Key words: physical, attention, before, puberty, less, circulate
A longitudinal study of youth soccer players showed that these natural gains may plateau during the interval before the young athlete reaches peak height velocity; performance may even decrease during this period, as it occurs with 30 m speed scores (41). Then, at the age at which peak height velocity is attained, several of these natural gains in physiological and motor performance scores appear to reach their peak rate of development. In the 12 to 18 months after peak height velocity, decreasing rates of growth-related improvements in many of these parameters are then observed (41). Hence, scores in motor performance, in the absence of training interventions, appear to plateau at the end of this phase of development in youth sports players. Changes in musculoskeletal, cardiovascular, and respiratory systems during and after puberty have major implications for metabolic conditioning (38). There are marked differences between prepubescent and adolescent players in terms of responsiveness to anaerobic and aerobic training. During puberty, the responsiveness of young players for anaerobic exercise progressively increases (38). Before puberty, young athletes have very limited capacity for this type of training. The rate of maturation-related improvements in anaerobic capacity during puberty peaks near peak height velocity, but natural gains continue thereafter (41). Children and adolescents show gains in cardiovascular and respiratory fitness with aerobic training (38). However, significant gains can be made particularly during puberty in young players as they reach their peak height velocity (i.e., near 14 years for boys and 12 years for girls), partly because of the aforementioned maturation effects Because of the growing

awareness of sport-specific training methods among coaches, parents, and young players themselves, there is often pressure to solely prescribe training that mimics the chosen sport in which the young player participates. One of the most important recommendations from authorities on youth training is that during all stages of development, the young player should perform a range of sports and training activities to facilitate overall athletic development (5). It is advocated that the young player should specialize only in terms of sport and playing position as he or she advances into late adolescence; much the same applies in terms of physical preparation. Cook (7), a noted physiotherapist and strength and conditioning coach, described a pyramid model for the abilities that constitute athleticism. The base layer of the athleticism pyramid consists of mobility and stability. Mobility is the active range of motion for functional movements, and stability is the ability to maintain posture and balance during athletic movement. The next layer up in the athleticism pyramid could be described as functional movement. All sports and athletic events feature fundamental movements in some combination, which include squatting and lifting, pushing and pulling, lunging, locomotion (e.g., running), and twisting (35). The top layer of the athleticism pyramid is functional skill, which can be viewed in terms of sport-specific strength and movement skill training. Training to build young athletes therefore must start at the foundation of the athleticism pyramid and build upward. Development of mobility and stability is therefore the first priority when training young players. In turn, these qualities underpin the players ability to perform fundamental movements that are common to all sports. As Cook states, "Fundamental movement supports specific movement" (7). That is, players fundamental movement abilities will determine their ability to perform sport-specific movements. There is no point in trying to impose sportspecific training on flawed fundamental movement patterns. It follows that training activities at this stage of the athletes physical preparation should predominantly feature fundamental athletic movements. Exercise selection can then progressively shift to sportspecific movements with advances in the athletes physical development. NEUROMUSCULAR AND MOVEMENT SKILL TRAINING As discussed earlier, mobility and stability are major training goals to build the foundation of athleticism in young players. Neuromuscular training interventions often comprise dynamic stability and balance training exercises (37). These forms of neuromuscular training offer a means for development of whole-body balance and postural control (46), which underpin stability. Functional movement abilities, the next tier up in the athleticism pyramid, likewise can be developed through appropriate movement skill instruction and training (37). Prepubescent athletes have less mechanical efficiency compared with adolescent athletes. Although mechanical efficiency improves as the young athlete progresses through puberty, adolescent athletes still have less mechanical efficiency than adults (38). It follows that there is considerable scope for this aspect of performance to be improved through specific instruction and practice. Exercise economy has been identified as an area for development in young athletes (38), allowing the young player to sustain a higher relative work rate throughout the course of a match. Some evidence supports the potential of neuromuscular training to improve athletic performance in young players. Jump training incorporating specific instruction and training of proper movement mechanics has been shown to improve vertical jump andmovement biomechanics in high school female athletes (36). A neuromuscular training intervention significantly improved lower-limb alignment and reduced knee valgus angles in young female athletes (39). Similarly, balance training improved shuttle run agility performance in a mixed-gender recreationally active training group (46). Dynamic balance training has also been shown to significantly reduce impact forces on landing in adolescent female team-sports players (37). The neuromuscular control capacities that allow an athlete to dissipate impact forces and maintain proper lower-limb alignment have been identified as key factors in reducing players relative risk of injury (42). Both forms of neuromuscular training described above may thereby help guard against injuries through different mechanisms. Prepubescent athletes have a tendency to have neuromuscular control deficits, particularly, valgus hip, knee, and ankle alignment during jump-landing tasks (2). This is indicative of impaired ability to control joint motion particularly at the knee and, as such, is associated with increased injury risk (14). Training to improve lower-limb neuromuscular control therefore appears important to correct the potentially injurious lower-limb alignment when it is observed in prepubescent team-sports players. Young female athletes in particular showed these traits (2). Neuromuscular control issues may contribute to making female athletes ligament-dominant. Specifically, as a result of inadequate active muscular stabilization, girls can rely more on ligamentous support to assist in stabilizing lower-limb joints, subjecting these ligaments to greater strain (14). In combination with anatomic factors, including hypermobility and joint laxity of lower-limb joints, this strain can make girls more prone to lower-limb ligament injury than boys. Girls appear to show valgus knee motion to a greater extent on their dominant leg (14). Such side-to-side imbalances in neuromuscular control and coordination represent another risk factor for injury. As boys pass through puberty, they undergo a neuromuscular spurt, which accompanied by limb growth and favorable changes in body composition (i.e., increased muscle mass relative to fat mass), improves their biomechanics (42). One observed aspect of this improvement is an enhanced ability to dissipate ground reaction forces on landing. These landing-impact forces, in turn, directly influence the loading absorbed through lower-limb joints (22). This neuromuscular spurt phenomenon does not occur in girls. The lack of any marked improvement in neuromuscular power and control, in combination with limb growth and body mass gains, can make the lower limbs even more unstable in adolescent girls (42). Certainly, female players continue to have a tendency to have potentially injurious lower-limb alignment and movement mechanics as adolescents (3,42). In the absence of neuromuscular training, female players also have a tendency to preferentially recruit the quadriceps over the hamstring muscles during activity, known as quadriceps dominance (14). Such biomechanical factors and aberrant recruitment patterns are implicated in the gender differences in rates of anterior cruciate ligament injury after puberty, which is not seen before this stage of development. Various studies report adolescent female players to have between 2 and 10 times greater incidence of anterior cruciate ligament injury compared to male players, depending on the sport (17). Neuromuscular training to address these issues therefore remains a priority for adolescent female players (2,42). Numerous studies support the capacity of neuromuscular training to offset this increased knee injury risk. After a neuromuscular training intervention, the knee injury incidence rates of high school female team-sports players were reduced to a level similar to those of untrained male athletes studied (22). The rates of knee injury in these adolescent female players after intervention were nearly 4 times lower than those in the untrained female players in the study.

References

1. www.ziyonet .uz
2. www.healthylife.com