

[Editorial]

Healthy Kids

Physical activity is essential for the mental and physical development of children and adolescents. Often accomplished through the framework of athletic participation, physical activity benefits many body components. From the development of muscles, tendons, and bones to the mental life lessons learned from team play, it is difficult to imagine healthy, optimal human growth and development without ample physical activity.

The digital age and the explosion of social media has drawn children toward a less physical and more sedate lifestyle, as evidenced by the present childhood obesity epidemic. A major armament in the fight against this epidemic is ensuring the availability of safe physical activity programs throughout childhood and adolescence. Ideally, these programs should have the potential to carry over to healthy adult lifestyles. Unfortunately, current trends lead many active children down paths that are less safe, as evidenced by the decline in participation rates in youth football, understandably due to concussion concerns and the fear of mental deterioration. Additionally, many opportunities for improving athletic safety are not being used for a variety of reasons.

To start with, take the current model of sports specialization. The American Orthopaedic Society for Sports Medicine (AOSSM) defines *sports specialization* as playing and training in a single sport for 8 months per year, playing only 1 sport, and starting that program before the age of 12 years.⁸ Specialization at an early age is known to be associated with overuse injuries, burnout, and decreased enjoyment. A survey study in this issue of *Sports Health* found that of 235 athletes between the ages of 7 and 18 years, 31% played only a single sport, with 60% playing their preferred sport 9 or more months per year.¹⁰ Important to consider here, however, is who is choosing for and what the motivations are of the adolescent athlete. As the authors point out, intrinsic motivation is to be lauded, while extrinsic pressure from parents and coaches is often problematic. Unfortunately, one-third of players in this study were told by a coach to not participate in other sports. Those “leaders” are often considering what’s best for their team, not necessarily what’s best for the individual athlete. No doubt, multisport participation in youth fosters varied skill and neuromuscular development, both of which can be valuable later in life.

To keep children and adolescents engaged and enjoying sports participation, safety and injury prevention should be high

priorities for coaches and athletic administrators. With more than 2.6 million sports injuries annually in patients younger than 24 years, there is a lot of room for improvement.⁴ Unfortunately, many of the options available to reduce injury rates are not being utilized. Part of the problem is that injury prevention often does not affect the structure of athletic participation until injuries occur and cannot be minimized or ignored. Athletes, parents, coaches, and administrators gain interest in prevention strategies after injury strikes close to home, rarely before. Thankfully, researchers have made strides in understanding which exercise programs prepare athletes best for competition and may lessen injury risk. The FIFA 11+ injury prevention program is effective in reducing many sports injuries.^{1,2,9} However, this dynamic stretching warm-up program is rarely implemented in part or as a whole. After monitoring 185 teams over 1 season during 644 warm-up observations, Slauterbeck et al¹² showed that 70% of these sessions did not use a single component of the FIFA 11+ program, and only 8.7% of warm-ups included just 1 exercise from the program. It is pretty sad that structured sports participation has not kept up with current injury prevention research.

Further explaining the injury dilemma and the lack of progress on the prevention side is the absence of a maintenance program or exit strategy from injury prevention programs for youth athletes, as outlined by DiStefano et al.⁵ Even when these programs for injury prevention are implemented, a long-term strategy for their continuation is usually lacking, likely negating the positive effects of the injury prevention intervention.

While the need for effective sports preparation and safe athletics is pretty clear, many factors in the sports injury risk reduction equation require more research and careful deliberation as to how they relate to the overall well-being of the athlete. An excellent example of this challenging dilemma is the report in this issue of *Sports Health* that suggests that oral contraceptive pill (OCP) use may have a protective association with noncontact anterior cruciate ligament (ACL) injuries in female athletes.¹¹ To be clear, this report is not the definitive work we would like to see on this controversial subject, yet the 2 best studies reviewed within this publication suggest that this may be the case: OCPs may be protective. While the majority of athletic personnel would like to see the rate of ACL injuries in female athletes decline, the decision to implement OCP use should be made by the athlete and her family after consultation with her physician. While the use of OCPs in female athletes

may be quite high (40%-50%),^{3,13} the risks are significant. Even with newer, low-estrogen preparations, the risk of ischemic stroke is increased⁷ along with the risk of breast cancer⁶ and venous thrombotic events.¹⁴ While the overall risks of these pathologies are quite low, they could be catastrophic for any young female athlete.

As a society, we can do better. While encouraging physically active lifestyles and increased athletic participation for all children, being careful about pressuring kids and limiting options should allow children to pursue what's fun for them. Using the best-known preparation programs will hopefully minimize injury risk for children during practice and play. Finally, encouraging and supporting researchers as they search for the answers to the more difficult questions in the injury risk arena is well worth the investment.

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