They’re Not Just Little Adults

Kids are really different from their adult counterparts! It is critical that physicians, coaches, physical therapists, and athletic trainers keep the features of growth and development in mind as athletes progress from childhood to adolescence. Children are not all the same and they don’t necessarily mature in the same way or at the same rate. Just take a freshman high school football team for instance: There may be a few teammates who shave, are well developed, and are ready to compete against juniors and seniors. They are likely close to their adult size, having already experienced their growth spurts. Others will probably be baby-faced—perhaps with peach fuzz on their chins. Their muscle development is still waiting for the blast of testosterone that will hasten their development. The weight and height differences between these groups may be substantial, thus raising the question, should they be competing against one another in a contact sport? Such are the issues of maturation sorting—a mixing bowl of factors complicated by hormones, genetics, nutrition, and environment.

The progressive musculoskeletal development that occurs between childhood and adolescence is fascinating but presents challenges for clinicians who care for those attempting to reach their maximum athletic potential. As we consider the consequences on the bone growth centers from the increased hours of training and the miles run, we realize that we do not have all the answers with which to reconcile optimal performance and growth. Many aches and pains that arise are minor concerns and so may reflect what previous generations of clinicians called “growing pains.” Some discomforts, though, should not be ignored and must be attended to properly to avoid more significant problems later. Such dilemmas are addressed by Lindenfeld et al and Purcell et al in this edition. Many sports injuries sustained by children and adolescents clearly demonstrate that there are limitations to what the growing skeleton can tolerate. Knowledge of these limitations should be part of the planning schedule for practice and training, especially in high-risk sports such as gymnastics and wrestling. Of particular concern are some of the conditions that affect the spine of young athletes. Whereas many adults suffer from low back pain (and a number use this condition for secondary gain), children, with rare exception, don’t malinger. Low back pain in children should always be taken seriously. Most cases involve mechanical or structural issues that can be successfully treated, especially if diagnosed early. All the more reason to pay special attention to such complaints in kids.

In addition to focusing on treating many of these musculoskeletal conditions, it is worthwhile to emphasize their prevention, as Sekiya et al and Zernicke et al do in this issue of Sports Health. Sekiya et al demonstrates the difficulty of changing the mindset regarding unsafe weight loss practices in amateur wrestling. Although recent guideline and rule changes have helped, much more can be done to improve the health environment of wrestling.

The nutrition work by Zernicke et al is particularly interesting in light of what the typical American teenager ingests in high school cafeterias and fast-food outlets, making one wonder why teenagers don’t sustain hip fractures in their 20s.

The publications in this issue pose a challenge to those looking to improve the health of youngsters. By accepting this challenge, we hope to enhance the lives of this and future generations.

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—Editor-in-Chief