Sports Specialization and Burnout

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Over 60 million kids between the ages of 6-18 participate in organized sports in the U.S., a number that continues to increase each year. As athletes and parents try to gain an edge over the competition, many will attempt to specialize in a single sport at an early age. The question is, though, is early sports specialization helpful or harmful?

Sports specialization, which can be defined as intense, year-round training in a single sport, with the exclusion of other sports, first gained popularity in Eastern European development programs for young athletes. It’s often thought that early specialization will lead to improved skill acquisition through the accumulation of practice hours, exposure to increased resources and more elite coaching, easier access to travel and club teams and attention from college recruiters and professional scouts. Additionally, this idea had been reinforced through profiles of athletes who have achieved tremendous success at a young age—LeBron James in basketball, Venus and Serena Williams in tennis and countless U.S. Olympians.

For some activities like gymnastics, figure skating, swimming, diving, and dance, early specialization may indeed be beneficial because peak performance in these sports typically occurs in adolescence/early adulthood or before physical development is complete. Muscle bulk is relatively less important and large physical size may be detrimental.

Unfortunately, evidence supporting the benefit of early specialization in most other sports is lacking. First of all, the odds of making it to the next level are infinitesimally small. Fewer than 10% of high school athletes will play in college and less than 2% will be drafted by professional leagues. The outlook is even more bleak when looking at younger athletes. Tens of millions of young athletes play football, basketball, soccer, and baseball, but only a few thousand total positions are available in those sports’ professional leagues in this country.

Furthermore, there are many studies showing that early diversification and later specialization (playing many different sports as a child before choosing one sport to focus on later in adolescence) is more likely to lead to success at the college or professional level. Most college athletes report that their first organized sports participation was in a sport other than the one they played in college. Elite athletes are actually more likely to begin intense training at a later age when compared to near-elite athletes. Early diversification also tends to lead to the development of a wider range of fundamental motor skills, fewer injuries and more enjoyment of and longevity in sport.

Finally, there is evidence that not only is early specialization not beneficial for most sports, but in many cases it can actually be harmful. Early specialization has been linked to delayed growth and maturation, is associated with a higher rate of overuse injury, and can lead to social isolation and burnout.

Burnout refers to a series of psychological, physiologic and hormonal changes that result in decreased sports performance. Potential triggers include a heavy training load without adequate recovery, monotony of training, an excessive number of competitions and the perception that the athlete cannot meet the demands of the sport. It’s more common in athletes who have low self-esteem, are perfectionists, have a need to please others, suffer from anxiety, and have little control over decision making when it comes to their sport.

Symptoms of burnout include:
- Poor sleep
- Exhaustion
- Weight loss
- Muscle soreness
- Decreased performance
- Feeling depressed
- Losing enjoyment from playing sports

Sometimes kids lose enjoyment in sports they once loved for a variety of reasons. Their interests may change or they may just want to spend more time with friends. But, it’s also possible that they are practicing and playing too much, feeling overwhelmed or feeling pressure from coaches or parents to excel. If you suspect burnout, be sure to bring this up with your patients as they may be reluctant to initiate such a discussion, especially in front of a parent.

This handout is also available for download at OhioAAP.org.
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Over 60 million kids between the ages of 6-18 participate in organized sports in the U.S., a number that continues to increase each year. As athletes and parents try to gain an edge over the competition, many will attempt to specialize in a single sport at an early age. The question is, though, is early sports specialization helpful or harmful?

Sports specialization, defined as intense, year round training in a single sport, with the exclusion of other sports, first gained popularity in Eastern European development programs for young athletes. This theory has likely been reinforced through profiles of athletes who have achieved tremendous success at a young age-LeBron James in basketball, Venus and Serena Williams in tennis and countless U.S. Olympians.

For some activities like gymnastics, figure skating, swimming, diving, and dance, early specialization may indeed be beneficial because peak performance in these sports typically occurs in adolescence/early adulthood or before physical development is complete. Muscle bulk is relatively less important and large physical size may be detrimental.

Unfortunately, there isn’t much to show that early specialization in most other sports is constructive. To start with, the odds of a child making a living playing sports are extremely low. Fewer than 10% of high schoolers will play in college and less than 2% will be drafted by professional leagues. The outlook is even worse for younger athletes. Tens of millions of kids play football, basketball, soccer, and baseball, but only a few thousand total positions are available in those sports’ professional leagues in the U.S.

Furthermore, there are many studies showing that playing many different sports as a child before choosing one sport to focus on later in adolescence is more likely to lead to success at the college or professional level. Most college athletes report that their first organized sports participation was in a sport other than the one they played in college. Elite athletes are actually more likely to begin intense training at a later age when compared to near-elite athletes. This early diversification also tends to lead to the development of a wider range of fundamental motor skills, fewer injuries and more enjoyment of and longevity in sport.

Finally, not only is early specialization not beneficial for most sports, in many cases it can actually be harmful. Early specialization has been linked to delayed growth and maturation, is associated with a higher rate of overuse injury, and can lead to social isolation and burnout.

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Burnout symptoms include:
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Risk factors for burnout
Training factors:
- Heavy training load without adequate rest
- Repetitive or boring training
- Too many intense competitions
- Negative feedback from coaches/parents

Characteristics in the athlete:
- Feel like they can’t meet the demands of their sport
- Low self-esteem
- Perfectionists
- Need to please others
- Anxiety
- Little control over decision making in their sport

Studies have shown that of the top 10 reasons kids play sports, #1 is to have fun. Winning is way down at #8 on the list. There are no hard and fast rules about sports participation when it comes to how early, how many, and how often, but here are some guidelines to help parents:

- Preschool should be a time for free play and learning motor skills like running, jumping, throwing and catching. Vision, attention span and the ability to understand competition are not fully developed in these kids so highly competitive sports should be avoided.
- As kids get older, a good rule of thumb is that they should not practice more hours per week in sports than their age.
- Let kids determine which sports they play and how much. It’s good to expose them to a bunch of sports early on, but as they get older let them choose what they like and never pressure them into continuing a sport they no longer enjoy.