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## ***OVERTRAINING IN YOUTH SPORTS***

Children are starting sports earlier and training harder at younger ages. With higher stakes have come pressures to perform better by being fitter and more skilled. Usually, this is achieved through repetition - whether it is serving a tennis ball, pitching a baseball or performing a figure-skating double axel.

In youth sports programs, fitness and skill development have to be balanced with the need to avoid overtraining. Overtraining is when the athlete is required to do too much – either physically or mentally, or both.

Parents need to be sensitive to changes in performance and attitude that suggest their children are being pushed too hard. Such changes may be precursors of physical injury.

These are some early signs of overtraining:

- Slower times in distance sports
- Deterioration in execution of sports plays or routines
- Decreased ability to achieve training goals
- Lack of motivation to practice
- Getting tired easily
- Irritability and unwillingness to cooperate with teammates

Unfortunately, the tendency when a parent or coach is confronted with any of these signs is often to push the child harder. But if overtraining is the culprit, any increase in training will only worsen the situation.

Training too much may eventually lead to overuse injuries, in which actual damage to the bones and soft tissues occurs because the body can't recover from the repetitive physical demands placed on it by sport activity.

### ***How long can children train for?***

As a general rule, children shouldn't train for more than 18-20 hours a week. If a child is engaged in elite competition there may be pressures to train longer - especially in the lead-up to a major event. Anytime a child trains for longer than this recommended length of time she must be monitored by a qualified sports doctor with expertise in young

athletes. This is to make sure abnormalities in growth or maturation do not occur. Any joint pain lasting more than two weeks is justification for a visit to the sports doctor. Restrictions against excessive sports activity should be heeded. For instance, young baseball pitchers in America are not allowed to pitch more than seven innings a week. While this restriction is mostly adhered to in the game setting, it is pointless if children are pressured by their coaches to throw excessively during practices. (Parents, too, need to remember that going to the park with their kid to "throw a few" should be counted toward the total number of pitches he makes.) In general, young baseball players shouldn't perform more than 300 "skilled throws" a week; any more than this and the risk of injury dramatically increases.

### *How much of an increase in training is safe?*

Increasing the frequency, duration or intensity of training too quickly is one of the main causes of injury. To prevent injuries caused by too-rapid increases in training, follow the "ten percent rule." The rule refers to the amount a young athlete's training can be increased every week without risking injury. In other words, a child running 20 minutes at a time four times a week can probably safely run 22 minutes four times a week the week after, an increase of ten percent.

Most overuse injuries are the product of violations of the ten percent rule, when young athletes have their training regimen increased "too much, too soon." Here are some examples:

- The football player, who, after a summer of inactivity, goes straight into a fall preseason training camp.
- The swimmer who normally trains at 5000 yards per day but then is asked to swim 8000 yards a day for three consecutive days.
- The dancer who does 12 hours of classes per week and then suddenly is training six hours per day, six days a week at a summer dance program.
- The gymnast, who, in the weeks before a major event, doubles her training time.

### *How hard should kids train?*

When young athletes are growing, the emphasis should be on developing athletic technique. Once good technique is mastered, power and speed can be introduced.

It is important to safeguard your children against being overtrained. The danger of this happening is especially acute if your child is an elite athlete or one engaged in a very competitive sports environment. Perhaps the most effective measure any parent can take is to make sure his child's coach is certified. Another is to look out for the signs of overtraining, as described above, as well as the early signs of injuries themselves. A strength training program is an important component of any injury prevention program for athletes - kids included.

Kids often drop out of sports because of low-grade pain that is actually the early stage of an overuse injury. The pain is never diagnosed as an early-stage overuse injury because

## OVERTRAINING (CONTINUED)

the child simply quits the program. What this may do is prejudice a child against physical activity and exercise for life. The same is true for mental stress in sports.

Given the state of fitness in this country, overtraining children has the opposite effect of what we want, which is to instill in our young people a love of exercise that will stay with them through life, and to inspire them to stay fit and healthy long after their youth sports days are done.

*The Sports Medicine Bible for Young Athletes (SourceBooks, 2002) by Dr. Lyle Micheli is a book filled with important information about how to make a young athlete's sports experience as safe and successful as possible. Visit [www.lylemichelimd.com](http://www.lylemichelimd.com).*

This fact sheet was created by Dr. Lyle Micheli and the faculty of the Division of Sports Medicine at Children's Hospital Boston.