

# How to Prevent Overuse Injuries

**O**ver the past 20 years more children are participating in organized and recreational athletics. With so many young athletes playing sports, it's no wonder injuries are common. Half of all sports medicine injuries in children and teens are from overuse. Here is information from the American Academy of Pediatrics about overuse injuries and injury prevention tips.

## What is an overuse injury?

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An overuse injury is damage to a bone, muscle, ligament, or tendon caused by repetitive stress without allowing time for the body to heal. Shin splints are an example of an overuse injury.

Overuse injuries have 4 stages.

1. Pain in the affected area *after* physical activity
2. Pain *during* physical activity, not restricting performance
3. Pain *during* physical activity, restricting performance
4. Chronic, *persistent* pain, even at rest

## Who is at risk?

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Children and teens are at increased risk for overuse injuries because growing bones are less resilient to stress. Also, young athletes may not know that certain symptoms are signs of overuse (for example, worsening shoulder pain in swimmers). If you think your child has an overuse injury, talk with your child's doctor. A treatment plan may include making changes in how often and when the athlete plays, controlling pain, and physical therapy.

## How to prevent overuse injuries

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Athletes should stay away from excessive training programs that could be harmful. Here are guidelines to help prevent overuse injuries by promoting a healthy balance of activities.

## Prepare

- Athletes should have a preparticipation physical evaluation (PPE) to make sure they are ready to safely begin the sport. The PPE should be incorporated into the athlete's well-child visit in the medical home ([www.medicalhomeinfo.org](http://www.medicalhomeinfo.org)). However, it may need to be performed at a separate visit. The best time for a PPE is a minimum of 6 weeks before the beginning of the season to allow for any extra evaluation or rehabilitation.
- Athletes should maintain a good fitness level during the season and offseason. Preseason training should allow time for general and sport-specific conditioning. Also important are proper warm-up and cooldown exercises.

## Play smart

- Athletes should avoid specializing in one sport before late adolescence. Child "superstars" are often injured or burn out prior to college. Children should be encouraged to try a variety of sports.
- Participation in a particular sport should be limited to 5 days per week.
- Athletes should sign up for one team and one sport per season.

## Rest up

- Athletes should take at least 1 day off per week from organized activity to recover physically and mentally.
- Athletes should take a combined 3 months off per year from a specific sport (may be divided throughout the year in 1-month increments). The athlete should remain physically active during that time.

## Training

- Increases in weekly training time, mileage, or repetitions should be no more than 10% per week. For example, if running 10 miles this week, increase to 11 miles the next week.
- Cross-train. Athletes should vary their endurance workouts to include multiple different activities, like swimming, biking, or elliptical trainers.
- Perform sport-specific drills in different ways. For example, run in a swimming pool instead of only running on the road.

### How to prevent burnout

Burnout (overtraining syndrome) includes mental, physical, and hormonal changes that can affect performance. To help prevent burnout in your child, follow the guidelines in this handout. Other suggestions include

- Keep your child's practice fun and age appropriate.
- Focus on your child's overall wellness, and teach your child how to listen for problems with his or her body.

### Remember

Your goal should be to promote a well-rounded athlete who can enjoy regular physical activity for a lifetime.

#### NOTES

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in treatment that your pediatrician may recommend based on individual facts and circumstances.

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