



Parents' Guide

to caring and feeding
young athletes

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I. INTRODUCTION

**“Do you know what my favorite part of the game is?
The opportunity to play.”**

~ Mike Singletary , National Football Hall of Famer



Congratulations! Your child has joined an athletic program, taking a positive step toward fighting off the two major contributors to chronic disease: a sedentary lifestyle and excess weight. Organized sports may not be the way to go for every child, but all children need regular exercise. The physical benefits include increased cardiovascular endurance, muscle strength, coordination and flexibility. Studies have shown that there is a mind-body connection as well -- physical activity can help lead to mental well-being, increased confidence and a sense of accomplishment. Socially, sports offer children the opportunity to learn to work as part of a team and to form new friendships.

It is important that you, as a parent, recognize that young athletes are not just small adults. Children’s growing bodies have very different needs. There is a sizable difference in coordination, stamina and strength. Take care that your young athlete is properly prepared and that you know what to do in the event of an injury. Then sit back and watch your child discover the thrill of a challenge.

GETTING READY TO PLAY

Get your child an annual medical checkup.

Most schools don't require a checkup before participating in a sport until middle school or high school but the American Academy of Pediatrics recommends an annual exam for children of all ages.

Make sure the health care provider knows:

- The activity your child wishes to play.
- The doctor can ensure that your child can play safely or be redirected to a more appropriate sport.
- Symptoms or concerns your child might be having. This is critical for recognizing health issues early -- when they can most easily and successfully be addressed.

The proper equipment minimizes risk of injury.

Your child needs the appropriate gear for the sport. These have been designed specifically to protect your child from the risks in the given activity and to give your child the best chance to perform well. Ask your child's coach for a list.

Only use gear designed for your child's specific sport. A football helmet should not be used for skiing, for example.

Some equipment will differ for boys and girls. Your child's equipment should be gender appropriate.



Gear should fit correctly and be tailored to your child's height and weight. If in doubt, have your child fitted by a professional. Equipment must be maintained. A badly strung tennis racquet or ill-fitting shoes can cause major injuries.

If your child wears protective eye gear, make sure it is made of polycarbonate plastic which doesn't shatter.



FEEDING YOUR YOUNG ATHLETE

All kids need to eat balanced meals and have a healthy diet. But should that balance change for kids who play on a sports team or work out? Maybe.

Kids need to eat the right amount and mix of foods to support that higher level of activity, but that mix might not be too different from a normal healthy diet. Eating for sports should be an extension of healthy eating for life.

Nutritional Needs of Young Athletes

Many “sports” foods and drinks, like energy bars and gels, are marketed to athletes, but most don't need them to meet their energy needs. While these products don't have magic ingredients that will improve sports performance, they can be handy when kids don't have time for a healthy meal or snack.

Kids who eat healthy, well-balanced meals and snacks are probably getting the nutrients needed to perform well in sports. The Food Guide Pyramid (<http://teamnutrition.usda.gov/kids-pyramid.html>) can provide guidance on what kinds of foods and drinks to include in your child's meals and snacks. In addition to getting the right amount of calories, it takes a variety of nutrients to keep young athletes performing at their best:

Vitamins and minerals: Kids need a variety of vitamins and minerals. Calcium and iron are two important minerals for athletes. Calcium helps build strong bones to resist breaking and stress fractures. Calcium-rich foods include dairy products like milk, yogurt, and cheese, as well as leafy green vegetables such as broccoli. Iron helps carry oxygen to all the different body parts that need it. Iron-rich foods include red meat, chicken, tuna, salmon, eggs, dried fruits, leafy green vegetables, and whole grains.

Protein: Protein is needed to build and repair muscles, but most kids get plenty of protein through a balanced diet. Protein-rich foods include fish, lean red meat and poultry, dairy products, nuts, soy products, and peanut butter.

Carbohydrates: Carbs provide energy for the body. Some diet plans have urged weight-conscious adults to steer clear of carbs, but for a young athlete they're an important source of fuel. When you're choosing carbs, look for whole-grain foods like whole-wheat pasta, brown rice, whole-grain bread and cereal, and plenty of fruits and vegetables.

Drink Up!



It's important for young athletes to drink plenty of fluids to prevent dehydration, which can zap strength, energy, and coordination and lead to heat-related illness. Even mild dehydration can affect athletic performance.

Thirst is not a reliable indicator of hydration status so experts recommend that kids drink water or other fluids every 15 to 20 minutes during physical activity. Although many sports drinks are available, plain water is usually enough to keep kids hydrated. Sports drinks are a good choice if kids are active for more than 1 hour because after exercising for 60 to 90 minutes, the body has used up

its readily available sources of energy.

The bottom line is that for most young athletes, water is the best choice for hydration. After the activity, carbohydrates and electrolytes can be replenished.

Pressures Facing Athletes

Some school-age athletes face unique pressures involving nutrition and body weight. In some sports, it's common for kids to feel they need to radically increase or reduce their weight to reach peak performance.

In sports where weight or appearance is emphasized, such as wrestling, swimming, dance, or gymnastics, kids may feel pressure to lose weight. Because athletic kids need extra fuel, it's usually not a good idea for them to diet. If a coach, gym teacher, or teammate says that your child needs to lose or gain weight, or if you're concerned about your child's eating habits, talk to your doctor.

Meal and Snack Suggestions

A good breakfast for young athletes might include low-fat yogurt with some granola and a banana, or whole-grain cereal and milk with sliced strawberries. Try bean burritos with low-fat cheese, lettuce, and tomatoes or a turkey sandwich and fruit for lunch. For dinner, serve grilled chicken breasts with steamed rice and vegetables, or pasta with red sauce and lean ground beef, along with a salad. Good snacks include pretzels, raisins, crackers, string cheese, or fruit.

It's important to feed your child healthy meals and snacks consistently, even during the off-season. This will provide a solid foundation during times of competition.

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A WORD ABOUT SLEEP

Between school, sports and other extracurricular activities, many children fail to get one of the things they need most: enough sleep. If they are to perform well in all these areas, it is critical that they go to bed at a reasonable hour.

Elementary school children: Need 11 to 12 hours of sleep a night.

Preteens: Need about 10 hours.

Teens: Need at least nine, but don't be surprised if they crave more. Their bodies are growing and changing at such a rapid pace, they may need the sleep time to recover energy. It may seem exasperating to you when they sleep the day away on their weekends but know that this is normal and healthy.

PERFORMANCE ENHANCING DRUGS

Many young athletes are under intense pressure from their coaches, parents, peers or themselves to perform at unrealistic peak levels. A college scholarship or a berth on a higher level team may ride on it. In response, they might be tempted to take performance-enhancing drugs or supplements. However, the drugs can produce many serious side effects. Don't let your child take any drug or supplement without first thoroughly discussing it with his healthcare provider.



HEAT ILLNESSES ARE SERIOUS

Exercise and heat can be a deadly combination for athletes, especially young ones who may be too intimidated to tell their coach they need a break. There are three types of heat illnesses:

Heat cramps are the least serious of the heat illnesses.

Symptoms: A painful spasm of the skeletal muscles, occurring most often in the hamstrings, calves and abdominal muscles. They can also produce dehydration, sweating and a loss of electrolytes.

Treatment: Drinking water, gently stretching involved muscles, resting and observing for further symptoms.

Heat exhaustion is the most common.

A decreased volume of blood circulation causes prolonged overexertion and insufficient water and electrolyte replacement.

Symptoms: Profuse sweating; cool, clammy skin; normal body temperature; rapid, weak pulse; pale skin; dizziness and headache; confusion and disorientation.

Treatment: Remove child from hot environment to a cool place (child should not return to the game or activity); remove excess equipment and clothing; get child to drink cool fluids. If child does not improve rapidly, take him to a medical facility for further evaluation.



Heat stroke is the least common but most serious.

The child's thermoregulatory system of the body is completely overwhelmed and his body can no longer cool itself.

Symptoms: No sweating; rapid, strong pulse; unconscious; if child is conscious, he is confused or disoriented; markedly increased body temperature; reddish colored skin.

Treatment: This is a medical emergency. Seek medical assistance immediately. Reduce the child's body temperature immediately by placing ice or cold towels on his body, pour cold water over the child's body or direct fans toward the child.

Prevention of heat illnesses

- Athletes should acclimate themselves to hot weather by gradually increasing their participation over a period of two weeks.
This is probably the most important method of prevention.
- Rest periods of 15 - 30 minutes should be scheduled during hot weather activities that last more than an hour.
- Athletic activities should be scheduled during cooler morning or early evening hours.
- Clothing should be white to reflect heat, loose enough to permit heat to escape, and permeable to moisture to allow heat loss through sweat evaporation.
- Athletes should drink four to eight ounces of water every 15 to 20 minutes of an activity.
- Athletes at particular risk should be watched carefully. Athletes with large muscle mass and athletes with a history of heat problems are particularly prone to heat illnesses.

PLAYING IT SAFE

From the ages of six to 18, children's height will increase by almost half, and their weight can more than triple. Bone grows faster than muscle so if muscles aren't warmed up and stretched, they can tear. Many young athlete's injuries are attributable to muscle tightness during growth spurts. Therefore, in order to avoid injury, it's critical that your child makes stretching and strengthening exercises an important part of her workout. Make sure your child gets a routine to follow from his coach.

Stretching

Playing sports requires flexibility. Young athletes should stretch their muscles before and after an activity to minimize injury risk and increase performance level. Before stretching, the child should first warm up by running in place in order to increase body temperature, which makes stretching easier. Each stretching exercise should be performed three to five times, and held for 10 - 15 seconds each time, with a period of rest in between.

Strengthening

Strengthening exercises are important to not only have adequate muscle mass but to achieve a balance of strength between muscle groups. Strengthening exercises should be done three times a week, with a day off in between. Various exercises include weightlifting, resistance training, running, biking, sit-ups, pull-ups or push-ups. (Your child should warm-up for 10 minutes before each session.)

It is important to use proper form when performing the exercises or else injury may occur. Make sure your child has been properly instructed before beginning



any strengthening program. Vigorous strength training should not be performed by anyone under the age of 13.

FEMALES ARE BUILT DIFFERENTLY THAN MALES

According to the National Institute of Health, females are eight times more likely than males to suffer sports injuries. Much of the research points towards the differences in women's bodies.

Wider female pelvises can cause women to be more knock-kneed, which can force kneecaps to go off-track.

Female tendency toward double-jointedness makes it harder for them to hold their bodies in proper positioning, which predisposes them to overuse problems.

Females have less muscle mass than males.

The Female Triad (overtraining and disordered eating lead to disrupted menstrual cycles) can lead to stress fractures because of loss of bone density.



Parents, urge your daughters to:

- Be informed about their special risks
- Eat properly
- Train as directed by a trusted coach.
- Take the necessary prevention steps to avoid injury.

STRAINS, SPRAINS, BUMPS, BRUISES, BREAKS

Even with the most vigilant protection and prevention methods, your child can get injured. The most dramatic ones occur usually from a single blow to the body:

Bruise

Swelling and bleeding in the muscle or other body tissues, causing skin discoloration and tenderness

Treatment: The Rice Way

Rest: Make sure your child rests the injured part of the body

Ice: Apply ice packs. Never apply heat in the first 24 hours after an injury. It will increase swelling.

Compression: Wrap the injured part of the body in a compression bandage for at least two day.

Elevation: Keep the injured part of the body elevated above heart level to reduce swelling.

Concussion

Severe blow to the head which causes a temporary shock to the brain. You do not have to be knocked unconscious to have a concussion. Symptoms can be amnesia, memory loss, difficulty concentrating, headache, light sensitivity, blurred vision, slurred speech and dizziness. Sometimes symptoms don't show up until days after the original trauma. Watch out for sleep disruption, fatigue, depression and general "slowness."

Treatment: Stop activity immediately and seek medical help. Do not return to the activity until all symptoms have subsided.

Fractures

A crack, break or shattering of the bone. Sometimes these are hard to tell from a simple strain or sprain. Indications that the bone is broken are: if your child heard or felt a bone snap; if the injured part moves or looks unnatural; or is very painful.

Treatment: Apply an ice pack, and seek immediate medical care. Do not move the child if you suspect the child has injured her neck or back, or if a bone protrudes from the skin. Call for emergency care.



Laceration

A cut in the skin, causing bleeding.

Treatment: Minor bleeding: Rinse wound thoroughly with mild soap and cover with a sterile bandage. Check the wound daily for infection. If it becomes red, swollen, tender, warm to the touch or begins to ooze, call your child's health care provider.

Large cut: Rinse wound and place a sterile bandage or a clean cloth over it. (Do not apply a tourniquet.) Apply pressure to the wound for five minutes with your hands. If blood clots through, do not pull the dressing off. Put another dressing over it and continue applying pressure. Call your child's health care provider or take your child to the emergency room if:

- You are unable to stop the bleeding after five minutes of pressure.
- You can't clean the dirt out of the wound.
- The wound is on your child's face or neck.
- The wound seems deep or if the edges are widely separated.

Sprain

A stretch or tear of the ligament, the tissues that connects bones and cartilage

Strain: A stretch or tear of the muscle or tendon, the end of the muscle which connects it to a bone.

It can be hard to tell the difference between a sprain, strain or a break. If you have any doubt, call your child's healthcare provider or go to the emergency room immediately for an x-ray.



Ask your healthcare provider about over-the-counter pain relievers such as acetaminophen (like Tylenol) or ibuprofen (like Motrin). Then, take care of a sprain or strain “The Rice Way” (see above).

THE OVERUSE SYNDROME

Overuse is exactly what it sounds like: injuries, such as tennis elbow and shin splints, that occur from using one body part more than others.

It can be prevented by:

- Slowly increasing the intensity and duration of workouts.
- Wearing properly fitting shoes and clothing appropriate to the sport.
- Warmups, stretching, strengthening.
- Rest periods for the used muscle group.
- Varying the exercise routine.
- Listening to your body. A chronic ache or pain is telling you something is wrong! Simple soreness will go away in a day or two but pain from an overuse injury does not.

Recognizing overuse injuries

- Gradual onset.
- Your child doesn't remember being hit or otherwise injured.
- Your child's sport involves a repetitive activity.

Don't ignore overuse injuries. Just because an injury seems minor doesn't mean it will simply "go away." If left untreated, a chronic injury will get worse.



When to see a healthcare provider:

- If symptoms persist during daily activity.
- If symptoms are severe enough to affect walking.
- If symptoms diminish after a week of rest but return soon after child resumes activity.

LET YOUR CHILDREN PLAY

If you've ever had a child participate in an organized sport, there's a good chance you've had the uncomfortable experience of watching a parent berate his child for his performance, taunt or curse another child. Or get in a fight with another parent, spectator or coach. Unfortunately, in today's win-at-all costs mentality, parents can lose sight of what young people's athletics are supposed to be: physical exercise, a learning and social experience and fun.

Perhaps media exaltation of sports heroes has given parents and children kids unrealistic expectations. Maybe the constant coverage of professional players acting badly has made that kind of behavior seem cool or acceptable. Whatever the reason, it is up to the parents to set the correct tone. Urge your child to challenge himself, to play to the best of his abilities and to develop his skills. But let him know that good sportsmanship and appropriate behavior are more important than winning.

Then lead the way by behaving well -- and having fun yourself.

Signs your child feels pressured and stressed by athletics:

- Wants to quit
- Dreads practices and games
- Frequent stomachaches or headaches
- Nausea and vomiting before a game



- Seems depressed, upset or withdrawn
- Anxiety
- Is angry or inappropriately aggressive in play
- Sleep disruption
- Frequent injuries

If your child exhibits any of these symptoms, it's time for a family meeting to address his concerns. And it's time for you to reexamine your behavior to see if you have in any way contributed to the stress.

Additional Resources

American Academy of Orthopaedic Surgeons
www.aaos.org

American Academy of Pediatrics
www.aap.org

American Medical Society for Sports Medicine
www.amssm.org



American Orthopaedic Society for Sports Medicine
www.sportsmed.org

American Physical Therapy Association
www.apta.org

Kids Health for Parents
www.kidshealth.org

National Athletic Trainers Association
www.nata.org

National Institute of Health
www.medlineplus.gov

Randolph Hospital
www.randolphhospital.org

Tufts University Nutrition Navigator
www.navigator.tufts.edu



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