RUNNING SAFETY

A PARENT'S GUIDE FOR KEEPING KIDS IN THE GAME

RUNNING SAFETY

Sixty-five percent of all youth runners suffer injuries each year. Most of these injuries are caused by over-training or overuse. This reference guide provides information on the most common running injuries that require treatment.

OVERUSE INJURIES

Over-training and overuse injuries occur when repetitive stress is placed on the body without sufficient time to repair. Most of these injuries can be prevented with proper rest and using proper technique. To prevent further injury, athletes, coaches and parents should recognize the early signs of overuse injuries. Damage caused by repetitive stress leads to tissue inflammation, which causes pain. Symptoms of overuse injuries, also called chronic sports injuries include pain when performing the activity or sport, intermittent swelling, decreasing performance and dull pain even at rest. If symptoms persist, make an appointment with your pediatrician or pediatric sports medicine physician. It is also important to recognize potential environmental factors that may contribute to the risk for overuse injuries. They include type of shoe and running surface, distance and intensity.

KNEE INJURIES

- **Patello-femoral pain syndrome (runner's knee)** – pain in the front (anterior) of the knee coming from the joint and supporting soft tissues which is related to a combination of factors involving alignment of the hips, knees and feet during weight-bearing activity.
- **Osteochondritis dissecans** – a defect in the knee's cartilage that can become evident over time during repetitive activity such as running. This may be associated with knee swelling and locking.
- **Osgood-schlatter disease** – stress-related inflammation in the growth plate at the front of the knee where the kneecap attaches to the shin/tibia. This causes a tender bump on the front of the shin and occurs most commonly in runners ages 10-14.
- **Iliotibial band syndrome (ITBS)** – the most common cause of pain on the outside (lateral) of the knee. This overuse injury results from repetitive friction of the connective band of tissues extending from the hip to the knee, which then rub on the outer portion of the leg. Hill running often aggravates this condition.

LEG INJURIES

- **Medial tibial stress syndrome**, also called shin splints, causes pain along the lower inside portion of the tibia (shin). Shin splints also sometimes cause inflammation along the lower leg. It is important to note that not all shin pain is related to shin splints.
- **Stress fracture** – stress or fatigue fractures are the mounting result of abnormal stresses on normal bone. Stress fractures occur after repetitive loading on the bone, and are most common in the lower extremity. They are seen in both highly trained athletes as well as in individuals unaccustomed to vigorous activity.
- **Sever's disease** – a common injury among children ages 9-12. Sever's Disease is a disturbance to the growth plate at the back of the heel bone (calcaneus) where the strong Achilles tendon attaches to it.

DEHYDRATION

Softball players are at risk of **dehydration** if they don't get enough fluid to replace what is lost through the skin as sweat and through the lungs while breathing. It is important to drink plenty of fluids before, during and after a workout or game. An athlete's performance can be impacted by even mild dehydration. Athletes should take a water bottle to school and drink between classes and during breaks so that they are well-hydrated before their workout. In addition:

- Water should be readily available when working out.
- Athletes should drink often, ideally every 15 to 30 minutes.
- Sports drinks are recommended for activities lasting longer than one hour to replace sugar and salt as well as water

Early signs of dehydration can be non-specific and include fatigue, nausea, decreased athletic performance, headache, apathy, irritability and thirst. Signs of advanced dehydration include dark urine, decrease in reaction time, dry lips and mouth and disorientation.

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RUNNING SAFETY (CONT.)

Signs of advanced dehydration include dark urine, dry lips and mouth, decrease in reaction time and disorientation. Athletes with any of these signs should rest and drink water or sports drinks. If the athlete doesn't improve, feels dizzy or faint, or has little urine output, he should be seen by a doctor. Seek emergency treatment if the child is disoriented, unable to drink or has pale skin.

ASTHMA

Asthma is a condition that causes wheezing, coughing, shortness of breath or chest tightness. Some athletes have a form of asthma that causes symptoms during or after physical activity called exercise-induced asthma. In runners, symptoms usually occur 5-10 minutes after the athlete starts continuously running. Actions that may prevent or lessen exercise-induced asthma are:

- Warming up before a workout or game
- Breathing through the nose, and not the mouth, to warm and humidify the air before it enters the airways

Wheezing or coughing that begins between 5 to 20 minutes after beginning to run or play is a sign that asthma is not under control and more needs to be done to control symptoms.

Your child's primary care physician or a sports medicine physician can diagnose and treat asthma. An athlete is often prescribed an inhaler medication, such as albuterol, to be used 20 to 30 minutes before activity to prevent symptoms of asthma. Make sure your child follows instructions carefully to manage symptoms. With proper management, an athlete with asthma can maintain full participation in most sports. In fact, aerobic exercise actually improves airway function in asthmatic patients.

BUMPS, BRUISES, TWISTS & MUSCLE STRAINS

These can affect all areas of the body.

Recommended treatment is the **PRICE** formula:

Protect the area with a sling or crutches, if necessary.

Rest the injured area.

Ice the injury for 20 minutes at a time. Do not apply the ice directly to the skin.

Compress the injured area with a wrap. Do not pull tightly, as this can cut off circulation.

Elevate the injured area above the heart, if possible.

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SSM Health Cardinal Glennon SportsCare is the premier pediatric sports medicine provider in St. Louis and St. Charles. We provide exclusive, direct access to comprehensive medical care for young athletes. By working with multiple specialists and care partners, we guarantee your child will get the top care that is best suited to treat their unique injury, improving recovery time and outcome.

Specialists your child has access to through SSM Health Cardinal Glennon SportsCare include orthopedists, pulmonologists, cardiologists, radiologists, neurologists, emergency medicine physicians, adolescent medicine physicians, rehabilitation specialists, physical therapists, nutritionists and pediatric psychologists.

Partners your child has access to through SSM Health Cardinal Glennon SportsCare include SSM Health Cardinal Glennon Children's Hospital, SSM Health Orthopedics, SSM Physical Therapy and SLU*Care* Physician Group of Saint Louis University. We also keep kids in the game through educational programs and support for parents, coaches and athletes that focus on injury prevention, proper technique and overall athletic health.

For more information about SSM Health Cardinal Glennon SportsCare or to find a specialist for your athlete, call us at **314-577-5640** or visit us at **cardinalglennon.com/sportscare**.

Expert care for young athletes by SSM Health Cardinal Glennon Children's Hospital and SSM Health emergency medicine specialists, **24 hours a day in the ER** at: SSM Health DePaul Hospital, SSM Health St. Clare Hospital, SSM Health St. Joseph Hospital - Lake Saint Louis, SSM Health St. Joseph Hospital - St. Charles.

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