Hoop, there it is ... Another basketball injury. What can be done?

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Basketball is an intense, fast-paced sport that requires strength, speed, agility and power. Even when an athlete is highly skilled, there is a risk for injury due to the opportunity for collisions with other players, as well as impact situations. This risk increases in young athletes, as they are still developing the appropriate motor skills and coordination to safely participate. Additionally, the trend in today's young athletes is to specialize in a specific sport early, and to play on multiple teams throughout the year without adequate rest. This puts the athlete at risk of developing overuse injuries, as well as acute injuries, due to fatigue and burnout.

Common injuries in basketball:

- Ankle fracture
- Avulsion fracture
- Jumper's knee
- ACL injury
- Patellar dislocation
- Finger fractures
- Concussion
- Ankle sprains

Some of the most common injuries that occurs in basketball games and practices are injuries to an ankle. Typically, this involves an inversion mechanism of injury, with resulting sprain of the ligaments that support the ankle. Once these ligaments have been damaged, they are more susceptible to future injury. At times, an ankle injury can result in a fracture to the distal tibia or fibula. Treatment for these injuries can range from RICE (Rest, Ice, Compression and Elevation) to immobilization in a walking boot or cast with weight-bearing restrictions, to surgical fixation. Following these treatments, the athlete often is left with deficits in joint mobility, strength, balance, gait pattern and muscle flexibility. Without proper rehabilitation, this can put the athlete at high risk for subsequent ankle injuries, or continued pain with attempt to return to play.

Case study

A 17-year-old male presented to physical therapy for evaluation and treatment of left ankle sprain that occurred with inversion while running in a basketball game. He had history of multiple ankle sprains (bilateral), with no previous rehabilitation. He was a senior in high school, playing varsity basketball with hopes to try out for college teams. On examination, he had hypomobility of the left talocrural joint, decreased flexibility of bilateral gastrocs and bilateral hamstrings. Additionally, he had decreased strength of left ankle invertors and plantarflexors. His main complaint was that he had pain with running in basketball. Physical therapy treatment initially focused on joint mobility, strengthening of lower extremity musculature with focus on invertors and plantarflexors and flexibility exercises. He was able to progress through core stability, balance and proprioception exercises. Eventually, he was progressed through high-level balance on unstable surfaces, plyometrics, agility and running. He was able to tolerate a return to basketball drills in physical therapy treatment, and reported being able to return to basketball without issues. At discharge visit, he stated that he was scheduled to attend a try-out with a college team.

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When to refer a patient to Cook Children's SPORTS Rehab

- If there is pain
- If there are physical limitations
- If there are recurrent injuries
- If there are injuries that are not healing
- If the patient needs equipment and/or orthosis
- If the patient needs back-to-sport training
- If the patient needs injury prevention information
- To address proper body mechanics and alignment

Cook Children's SPORTS Rehab therapists treat all phases of injury, from acute, sub-acute, chronic and sport-specific training. Our physicians, therapists, nurses and technologists work exclusively with kids and understand the unique needs of a growing athlete's bones, muscles, body and mind.

SPORTS Rehab locations

750 Mid Cities Blvd., Ste. 130, Hurst, TX 76054
1719 8th Ave., Fort Worth, TX 76110
2000 Matlock Road, Ste. 100, Mansfield, TX 76063

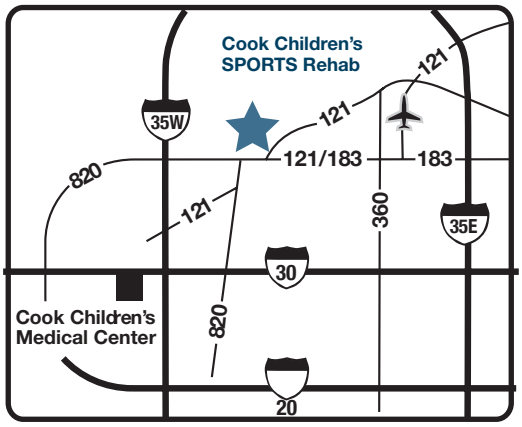
How can rehab help?

- Proprioception
- Balance
- Strength
- Core stability
- Plyometrics
- Return to running, cutting, agility and sport specific drills
- Flexibility

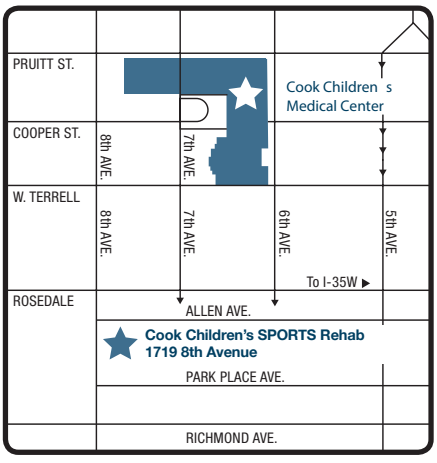
To brace or not to brace?

Research supports the use of ankle taping or lace-up ankle braces for people who are at increased risk of ankle sprains. This is considered appropriate when there's a history of more than three ankle sprains, or if they participate in a high-risk sport or activity, such as basketball. Interestingly, the rationale for utilizing a brace or taping is not to increase structural stability. It decreases ankle injuries by compressing the ankle, which improves proprioceptive input.

Hurst



Fort Worth



Mansfield

To schedule an appointment, call 817-347-2925.
Fax all referrals to 817-347-2985.