What injuries are common in young track athletes?

Alyce Henley, PT, DPT, ATC, LAT

Cook Children's SPORTS Physical Therapist
Education: Doctor of Physical Therapy from University of Texas Medical Branch at Galveston; Bachelor of Science in Athletic Training from University of Texas at Austin
Contact: 682-303-3652 or alyce.henley@cookchildrens.org

Track is growing in popularity among young athletes. Some athletes participate in track as their primary sport with the goal of winning races. Others utilize track as off-season training to improve their athletic performance, speed and endurance for their primary sport. Track requires good strength, flexibility, endurance and proprioception.

Despite the race type or distance, participation in track events requires repetitive actions that make athletes more susceptible to overuse injuries. Injuries may be due to poor lower extremity mechanics, muscle imbalances and/or structural alignment. These deviations from a normal gait/run pattern can lead to acute traumatic injuries. After injury, physical therapy can be beneficial to facilitate healing and a safe return to sport. Cook Children's SPORTS Rehab therapists assess full body posture and kinetic chain dysfunctions to create a plan of care specific to the patient's injury and stage in healing.

Potential causes for injury

- Muscle imbalances – weakness, decreased flexibility of lower extremities
- Core weakness
- Structural misalignment – genu valgum, pes planus, etc.
- Decreased proprioception and balance
- Poor muscular and/or cardiovascular endurance
- Improper warm-up
- Poor nutrition or dehydration
- Limited rest or recovery
- Environmental factors – incorrect shoes, heat, running surface, etc.

Common injuries in track

- Patellofemoral stress syndrome
- Medial tibial stress syndrome
- Hamstring strains
- Hip flexor strains
- Avulsion fractures
- Low back pain – lumbar instability, lumbar facet dysfunction
- Sacroiliac joint dysfunction
- Stress fractures to lower extremity
- Talocrural joint dysfunction
- Heat-related injuries

Case study

A 13-year-old male was referred to physical therapy for an evaluation after an avulsion fracture of the lesser trochanter while sprinting during track practice. He was initially non-weightbearing on the involved lower extremity and ambulating with axillary crutches. He had limited active range of motion of hip and knee with poor activation of the quadriceps muscles at the evaluation. Through passive and active-assisted range of motion techniques, he was able to improve range of motion and non-weightbearing strength of the involved lower extremity. Once he was cleared for weightbearing, he had significant functional deviations secondary to weakness, decreased muscular flexibility and a posterior innominate rotation of the sacral iliac joint from the lack of use with protective posturing. Manual energy techniques were utilized to improve pelvic alignment, and a psoas release was performed to improve hip range of motion. Extensive and progressive therapeutic exercises were utilized as he progressed back to running. At discharge, he was able to perform "Y" balance with neutral lower extremity alignment control and involved lower extremity score >95% of the uninvolved lower extremity. He also demonstrated appropriate running/sprinting techniques, including symmetrical weight shift and push-off. He was able to return to participate on his middle school track team successfully. His physical therapy plan of care was twice weekly for 12 weeks.

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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.

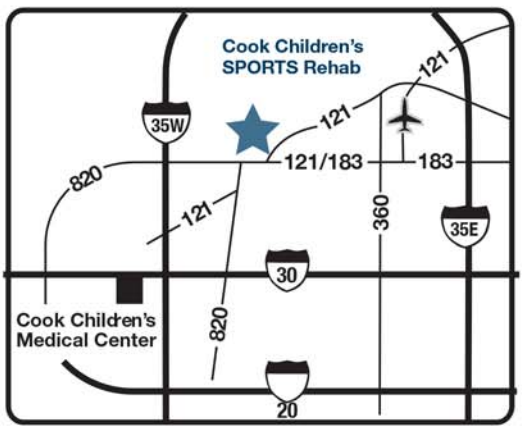
SPORTS Rehab locations

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?

- Flexibility
- Education on technique and proper shoes for sport
- Proprioception
- Balance
- Strength
- Core stability
- Plyometrics
- Return to running, cutting, agility and sport-specific drills

Hurst



Fort Worth

Mansfield

To schedule an appointment, call 817-347-2925.
Fax all referrals to 817-347-2985 | cookchildrens.org/SPORTS