Cross country athletes and the role of rehab

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Each fall, kids return to school and many of them choose to participate in cross country. This can range from adolescents who have never ran more than the length of the gymnasium, to high school seniors who have been running almost their entire lives. As with starting any new form of physical activity (or returning to it after an extended break), aches and pains are to be expected. But, at what point is the pain more than just normal soreness? And, when should you refer these patients to someone else?

Potential causes for pain in cross country athletes:

Medial tibial stress syndrome (MTSS or "shin splints"):

- Associated with running and tends to occur when first starting a fitness routine.
- Females are somewhat more prone, as are patients with a high BMI.
- Physical therapy would address stretching of tight musculature in foot/ankle, strengthening of arch stabilizers and hip and knee musculature and implement a return to running program.

Patellofemoral pain syndrome (PFPS or "runner's knee"):

- Pain is usually exacerbated by stair climbing or performing a deep squat.
- More common in females.
- Physical therapy would address biomechanical deficits (flexibility restrictions, knee valgus alignment, faulty movement patterns, muscle imbalances and weakness in the gluteals, particularly gluteus medius) and would implement a return to running program.

Iliotibial band syndrome (ITBS or "IT band syndrome"):

- Pain caused by excessive irritation or rubbing of the IT band over lateral femoral condyle.
- Physical therapy would address flexibility restrictions, knee valgus alignment, faulty movement patterns, muscle imbalances and weakness in the gluteals, particularly gluteus medius. Physical therapy would implement a return to running program.

Achilles tendinopathy:

- Broad range of severity, and this condition can become chronic.
- Physical therapy would address restricted ankle dorsiflexion range of motion, tight gastroc/soleus complex, eccentric calf weakness and abnormal hip/knee/foot mechanics. Physical therapy would implement a return to running program.

Stress fractures:

- Usually caused by failing to take adequate rest days, a drastic increase in frequency or intensity of running and running on a hard or cambered surface.
- Females should be screened for female athlete triad.
- Physical therapy would work with the physician to monitor healing, gradually promote improved lower extremity strength and control of mechanics and implement a return to running program.

Hamstring injuries:

- The closer the proximity of the strain to the ischial tuberosity, the longer the recovery and return to pre-injury level.
- Number one predisposing factor for this injury is a previous history of a hamstring strain.
- Physical therapy would address quad/hamstring strength imbalances, restricted hip flexor and hamstring mobility and loading mechanics. Physical therapy would also implement a return to running program.

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?

Our SPORTS Rehab physical therapists perform individualized assessments to create a customized treatment approach. We use manual therapy (soft tissue mobilization, manual stretching, myofascial release, joint mobilizations) to address restricted movement. We use focused therapeutic exercises to address areas of weakness, improve muscle imbalances and target impaired flexibility. We focus on retraining functional movements to create more efficient motor patterns that reduce stress and strain on injured areas. Above all, we work to empower our patients and families to take active roles in their recoveries. We educate on safe return to activity and monitor our patients closely, as they are resuming full activity. We also stay in close communication with our referring providers. If any of your patients present with complaints such as these, we encourage you to utilize our services.

Case study

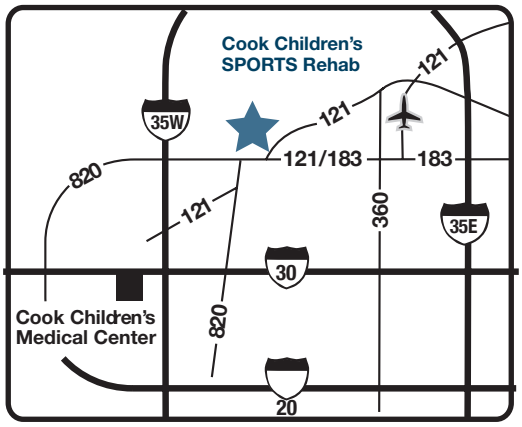
A 14-year-old female presented to physical therapy for evaluation and treatment of bilateral knee pain (right>left). She had pain off and on with activity over the past two years, but it had worsened since starting high school cross country. Pain improved initially with rest from activity, but returned when she attempted to resume running. She had never attended physical therapy in the past.

On examination, she had poor hamstring, hip flexor and quadricep flexibility, exquisitely weak hip abductors and extensors, significant IT band tenderness and displayed knee valgus and anterior translation when performing a single-leg squat. She also had joint hypermobility and preferred to stand with knees hyperextended. These signs and symptoms are consistent with IT band syndrome (ITBS).

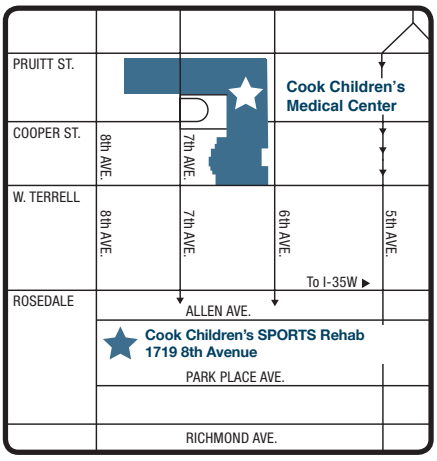
Physical therapy treatment initially focused on soft tissue mobilization of IT bands, quadriceps and piriformis musculature, as well as strengthening of gluteals and core. As strength and mobility improved, treatment progressed into instruction on squat mechanics and eccentric quad control initially in double-limb support and, ultimately, in single-leg stance.

As control of alignment improved, she was able to gradually return to running through a guided walk/jog progression. We also focused on education on proper warm-up and cool down, as well as instruction on a daily home exercise program. The patient resumed running without pain and also verbalized understanding of the importance of ongoing compliance with home program recommendations. At discharge, she reported 100 percent improvement in symptoms.

Hurst



Fort Worth



Mansfield

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

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