

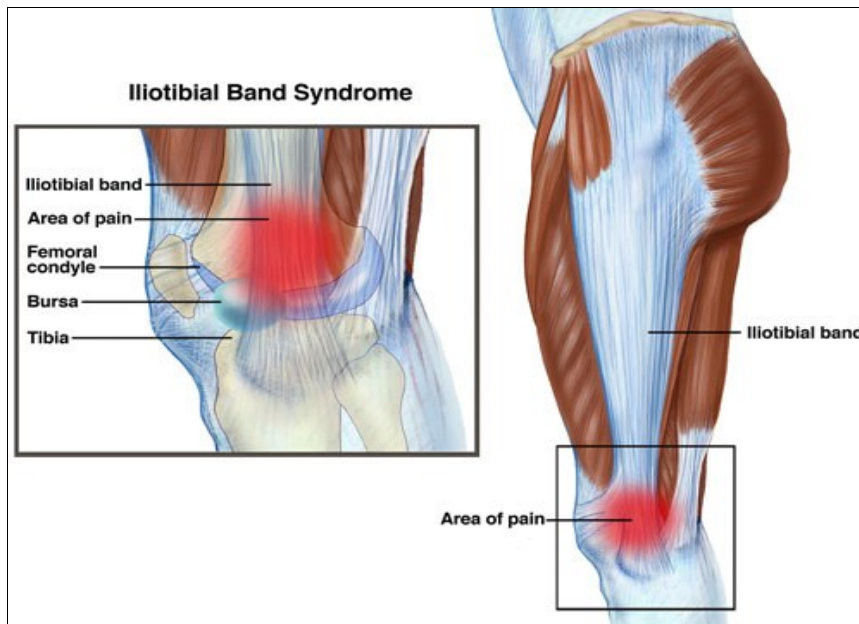


## Iliotibial Band Syndrome (ITBS)

Iliotibial band syndrome (ITBS) is one of the most common causes of knee pain, particularly in individuals involved in endurance sports. It accounts for up to 12% of running injuries and up to 24% of cycling injuries. ITBS is typically managed conservatively through physical therapy and temporary activity modification.

### What is Iliotibial Band Syndrome (ITBS)?

Iliotibial band syndrome (ITBS) occurs when excessive irritation causes pain at the outside (or lateral) part of the knee. The iliotibial band (ITB) is a type of soft tissue that runs along the side of the thigh from the pelvis to the knee. As it approaches the knee, its shape thickens as it crosses a prominent area of the thigh (femur) bone, called the lateral femoral condyle. Near the pelvis, it attaches to 2 important hip muscles, the tensor fascia latae (TFL) and the gluteus maximus.



Irritation and inflammation arise from friction between the ITB and underlying structures when an individual moves through repetitive straightening (extension) and bending (flexion) of the knee. Typically, ITBS pain occurs with overuse during activities such as running and cycling.

ITBS involves many lower extremity structures, including muscles, bones, and other soft tissues. Usually discomfort arises from:

- Abnormal contact between the ITB and thigh (femur) bone
- Poor alignment and/or muscular control of the lower body
- Prolonged pinching (compression) or rubbing (shearing) forces during repetitive activities

The common structures involved in ITBS are:

- Iliotibial band
- Bursa (fluid-filled sack that sits between bones and soft tissues to limit friction)
- Hip muscles

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ITBS can occur in:

- Athletes performing repetitive activities, such as squatting, and endurance sports such as running and cycling
- Individuals who spend long periods of time in prolonged positions, such as sitting or standing for a long workday, climbing or squatting, or kneeling
- Individuals who quickly start a new exercise regimen without proper warm-up or preparation

## Signs and Symptoms

With ITBS, you may experience:

- Stabbing or stinging pain along the outside of the knee
  - A feeling of the ITB “snapping” over the knee as it bends and straightens
  - Swelling near the outside of your knee
  - Occasionally, tightness and pain at the outside of the hip
  - Continuous pain following activity, particularly with walking, climbing, or descending stairs, or moving from a sitting to standing position
- Pain is usually most intense when the knee is in a slightly bent position, either right before or right after the foot strikes the ground. This is the point where the ITB rubs the most over the femur.

### \_How Is It Diagnosed?

Your physical therapist will ask you questions about your medical history and activity regimen. A physical examination will be performed so that your physical therapist can collect movement (range of motion), strength, and flexibility measurements at the hip, knee, and ankle.

When dealing with ITBS, it is also common for a physical therapist to use special tests and complete a movement analysis, which will provide information on the way that you move and how it might contribute to your injury. This could include assessment of walking/running mechanics, foot structure, and balance. Your therapist may have you repeat the activity that causes your pain to see firsthand how your body moves when you feel pain. If you are an athlete, your therapist might also ask you about your chosen sport, shoes, training routes, and exercise routine.

Typically, medical imaging tests, such as x-ray and MRI, are not needed to diagnosis ITBS.

### \_How Can a Physical Therapist Help?

Your physical therapist will use treatment strategies to focus on:

#### Range of motion

Often, abnormal motion of the hip and knee and foot joint can cause ITBS because of how the band attaches to hip muscles. Your therapist will assess the motion of your injury leg compared with expected normal motion and the motion of the hip on your uninvolved leg.

#### Muscle strength

Hip and core weakness can contribute to ITBS. The "core" refers to the muscles of the abdomen, low back, and pelvis. Core strength is important, as a strong midsection will allow greater stability through the body as the arms and legs go through various motions. For athletes performing endurance sports, it is important to have a strong core to stabilize the hip and knee joints during repetitive leg motions. Your physical therapist will be able to determine which muscles are weak and provide specific exercises to target these areas.

#### Manual therapy

Many physical therapists are trained in manual therapy, which means they use their hands to move and manipulate muscles and joints to improve motion and strength. These techniques can target areas that are difficult to treat on your own.

#### Functional training

Even when an individual has normal motion and strength, it is important to teach the body how to perform controlled and coordinated movements so there is no longer excessive stress at the previously injured structures. Your physical therapist will develop a functional training program specific to your desired activity. This means creating exercises that will replicate your activities and challenge your body to learn the correct way to move.

## Can this Injury or Condition be Prevented?

Maintaining core and lower extremity strength and flexibility and monitoring your activity best prevents ITBS. It is important to modify your activity and contact your physical therapist soon after first feeling pain. Research indicates that when soft tissues are irritated and the offending activity is continued, the body does not have time to repair the injured area. This often leads to persistent pain, and the condition becomes more difficult to resolve.



# Physical Therapist Highlight

## Michaela Goos, OTR/L

Michaela earned her master's degree in Occupational Therapy in 2008 from the College of Saint Mary in Omaha, Nebraska. In 2011, Michaela gained certification in lymphedema management. Her work experience involves a variety of settings, including hospital, home health, skilled nursing and outpatient therapy.

### Michaela specializes in:

- Dementia Management
- Hand Therapy

- Lymphedema Management
- Stroke rehabilitation
- Visual perceptual deficits

Call 308-872-5800 to schedule an appointment with Michaela!

### Product Highlight

#### Transcendence Cream

Skin care moisturizer and beauty cream. Helps heal burns, cuts, scrapes and scars. It is a natural hair conditioner. It rejuvenates skin cells, reduces wrinkles and is a natural makeup remover. This cream

heals with bee products, it has royal jelly and propolis in it which speeds healing. Available for purchase at our clinic.



### On the Radio!!

Listen to the Breakfast Show on KCNI-1280 every 1st Thursday of the month at 9 a.m. to hear one of our therapists talk about physical therapy & topics relative to you & your health.

**We now offer Occupational & Speech Therapy in our clinic!**

If you are interested in receiving an e-mail version of our newsletter please call 308-872-5800



**THURSDAY, SEPTEMBER 19—Noon till 7 p.m.**

### Open To All Interested Individuals

Andrew Mason, MPT, CSCS with PEARSON PHYSICAL THERAPY is offering a new service for anyone who is interested in having a thorough running evaluation. The hour long session will include:

- Running evaluation with video feedback and instruction for refinement of technique as needed (using model comparisons to aid in learning)
- Individual screening for flexibility, strength & posture impairment
- Establishment of flexibility and strengthening home program with recommendations based on individual findings along with known exercises beneficial for all runners
- Foot, shoe and gait assessment with education and recommendations regarding foot type & shoes as indicated
- Training management education (frequency/duration) to maximize conditioning progression and avoid overuse injury.

Please call 308-872-5800 for more information!

### Clinic Hours:

**Monday—Thursday 7 am—7 pm**  
**Friday— 7 am—6 pm**