

# COASTAL SPORTS & WELLNESS MEDICAL CENTER



The whole is greater than the sum of its parts.

Introducing the whole body approach to your health.

## *An Ounce of Prevention*

Staying injury-free while training for a marathon or half-marathon doesn't take an advanced degree - its mostly common sense and *prevention*.

Most injuries occur as the result of "too much, too soon" and can be prevented with simple tips and listening to your body.

Remember that your marathon training program is part of a larger picture of *health and wellness!*

## This issue: Preventing Running Injuries

### **PLANTAR FASCIITIS**

Are you waking up in the morning dreading those first few steps because of the pain it causes in your feet? Do you avoid going barefoot on the beach because of the pain that develops in the arch of your foot?? There's a good chance you make be suffering from plantar fasciitis.

#### **Symptoms**

Pain in the arch or the heel of the foot, usually worse with the first few steps in the morning or after sitting for a long period of time. The pain usually improves after a few minutes of walking or stretching. Some people complain of pain that develops after standing for a long period of time.

#### **Causes**

The plantar fascia is a thick band-like structure that originates from the heel bone (calcaneus) and attaches to the metatarsals.

Plantar fasciitis is the result of inflammation and tightness of the fascia of the bottom of the foot.

#### **Prevention & Treatment**

Basic treatments include stretching, massage and ice. Other tips include filling a plastic soda bottle with cold water and rolling the injured, bare foot over the side of the bottle for 3 to 5 minutes at a time several times a day. Massaging the area with either a golf or tennis ball or cross-friction massage may help break up scar tissue.

Stretching exercises for plantar fascia focus on stretching the Achilles and calf muscles. Other exercises include trying to pick up a towel or small objects with the toes, which increases flexibility of the plantar fascia.

### **ACHILLES TENDINITIS**

#### **Symptoms**

Pain or swelling in the back of the calf, usually 2 to 3 inches above the back of the running shoe. The pain is typically worse when the heel strikes the ground or when pushing off from the ground on your toes.

A rupture of the Achilles can occur during a forceful push-off. Typically there is a "pop" or ripping sensation in the back of the calf, followed by pain and decreased movement of the ankle.

A suspected Achilles rupture requires evaluation by a sports medicine physician and may require surgery or prolonged immobilization in a cast or walking boot.

## Top 5 Running Injuries

**Achilles Tendinitis**

**Patellofemoral Syndrome**

**Medial Tibial Stress Syndrome**

**Plantar Fasciitis**

**Iliotibial Band (ITB) Syndrome**

**Causes**

Common causes of Achilles tendinitis include: tight calf muscles, recent increase in running mileage or running up hills. Over-pronation (rolling in of the foot) as well as high foot arches (pes cavus) and flat feet (pes planus) can also cause Achilles tendinitis.

**Prevention**

Prevention includes proper stretching, slowly increasing your mileage and proper running shoe selection.

**Treatment**

Ice decreases inflammation, pain, and swelling. Apply ice for 10 to 15 minutes three to four times a day. Anti-inflammatory pain medications such as ibuprofen (Motrin or Advil) or naprosyn (Aleve or Naproxen) as directed by your physician.

Gentle range of motion and calf stretches can be helpful. Eccentric calf exercises can be helpful in recurrent cases.

**Achilles Exercises**

- Stand on the edge of a step, facing the steps as if you were going up the stairs.
- Place the balls of your feet and toes on the step
- The heels of both feet are hanging off the edge of the step.
- Return to the starting position using your uninjured leg.
- Repeat this exercise 10 to 15 times as the pain allows. Stop if the pain becomes worst.

These exercises are done by standing on a step or stairs with the toes on the step and the heels hanging off the step. Slowly lower your heel so that it drops below the step. You should feel a slight stretch in the calf. This movement is the eccentric or lengthening movement. Slowly return to the starting position. Repeat 10 to 15 times twice a day.

**RUNNER'S KNEE**

Patellofemoral Pain Syndrome (PFS) has also been called "Runner's Knee" or chondromalacia and is pain or discomfort behind or around the kneecap.

**Symptoms**

The pain is usually worse after running, walking or going up and down stairs. Some

people also have pain in the knee after sitting or driving for a long period of time. Occasionally, there may be the feeling of grinding or clicking in the knee. There may also be swelling around the knee.

**Causes**

The pain is usually from a muscle weakness or imbalance that causes the underside of the patella to rub against the femur

**Prevention & Treatment**

The main treatment is strengthening of the medial thigh muscle (vastus medialis or VMO). Cross-training, such as cycling or swimming may help reduce irritation and swelling. Ice and pain medications can help acute cases.

**SHIN SPLINTS**

Medial tibial stress syndrome, (MTSS) or "shin splints", is a common ailment that many runners experience, especially when returning from inactivity or after a rapid increase in mileage.

**Symptoms**

Typically, there is pain in the front portion of the shin above the ankle. Pain is usually present at the start of a run or exercise but may gradually improve. Stress fractures in the tibia The painful area involved in MTSS is usually 3 to 5 inches in length along the edge of the tibia. Pain that is concentration in a smaller area on the tibia or pain that continues to get worse with prolonged running may represent a stress fracture of the tibia. Shin pain that does not improve or continues to worsen should prompt a visit to your physician.

**Causes**

Overuse and chronic irritation of the attachment of the muscles of the lower leg to the bone. This process results in inflammation of the periosteum or outer lining of the bone. Risk factors for developing medial tibial stress syndrome include excessive pronation of the foot, running on the same side of a canted road.

**Prevention & Treatment**

Ice and medications as for the other injuries. Stretching and strengthening of the lower leg muscles is also a key component to recovery.

One exercise to strengthen these muscles is to stand on the stairs with the heel on the stairs and to slowly point the toes down towards the lower step and then raise the toes up. This movement helps strengthen the muscles of the lower legs.

**Injury Prevention Tips**

1. Limit weekly mileage increases to 10%
2. Take time to stretch after an easy warm up and after finishing a workout.
3. The Shoe Rule of 3 - Change out running shoes after 300 miles/3 months of running.
4. Listen to your body. Soreness is ok, but pain indicate the beginning of an injury.

**IT BAND SYNDROME**

The iliotibial band is a thick layer of tissue along the outer part of the leg that runs from the hip to the knee. Irritation can occur either in the hip or knee.

**Symptoms**

Pain at the outside part of the knee that is worse when bending the knee. Also pain on the outside part of the hip.

**Causes**

Tightness in the iliotibial band is a common cause. Other causes include weakness in the muscles around the hip and buttocks (gluteus muscles), running on a sloped surface such as the beach or road or excessive pronation or rolling in of the foot.

**Prevention & Treatment**

Ice massage to the painful area for 10 to 15 minutes after workouts can decrease the pain. Stretching of the iliotibial band is an important component if the tendon is tight.

One stretch is to stand and cross your injured leg behind your uninjured leg and bend over to touch your toes.

A second stretch is to sit or lay on the floor with the legs out straight. Bending at the hip and knee, take the injured leg and cross it over the uninjured leg. Slowly extend at the knee to increase the stretch.

Strengthening the gluteus muscles is also important. Step lunges and leg squats can help increase gluteal muscle strength.

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