



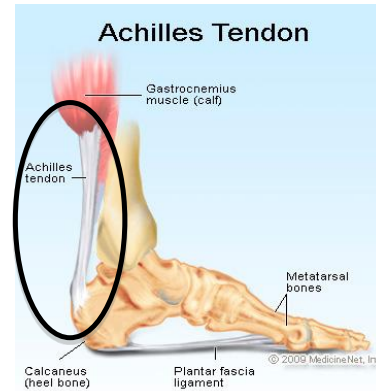
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OTHER SERVICES

Ten Most Common Running Injuries

INJURY: ACHILLES TENDONITIS

What the injury is: Achilles tendonitis is an acute, overuse injury causing pain and inflammation of the Achilles tendon at the back of the ankle. Repeated overuse of the Achilles tendon can cause a chronic condition to occur called tendinosis. Chronic tendinosis can then lead to tendinopathy. As soon as symptoms start to occur, it is advised that you see either your physician or a physical therapist in order to determine a treatment plan.



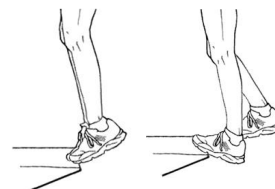
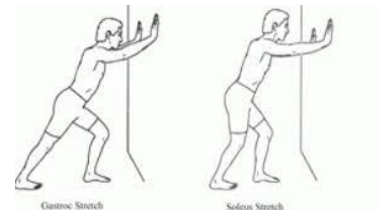
Foot pronation can cause increased stress to the inside of the Achilles tendon, which over time causes pain.

What causes it:

- Overuse
- Sudden increase in activity
- Running on hard surfaces
- Poor running mechanics
- Improper shoes for the individual
- Tight calf muscles
- Tight hamstrings
- Excessive foot pronation

How to treat it:

- When pain starts, modify training or rest completely
 - Cross training (biking, swimming, etc.)
 - Move to a softer surface, such as even grass
- Decrease inflammation
 - Ice or ice massage
 - Non-steroidal anti-inflammatory drugs
 - Immobilize the tendon (walking boot)
- Stretch the muscles of the back of the leg (calf, hamstring)
- Eccentric strengthening
- Heel lifts
- Orthotics



Gradual lowering of the heel when standing on a box is an example of an eccentric exercise

Seek medical treatment for a more thorough explanation of strengthening and mobilizing techniques in order to get back into full activity as soon as possible.



Ten Most Common Running Injuries

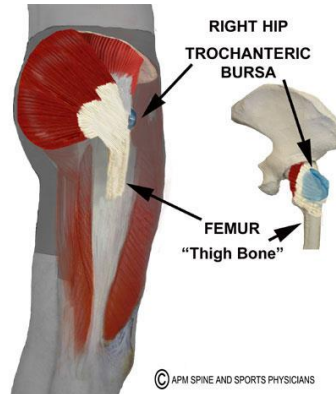


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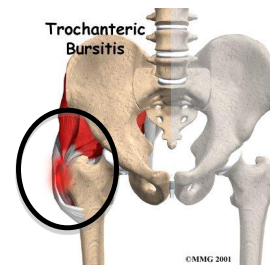
INJURY: GREATER TROCHANTER BURSITIS OF THE HIP

What the injury is: Greater trochanter bursitis of the hip is an inflammation of the bursa located where your leg attaches to your hip. The bursa is a fluid-filled sac that helps to decrease friction when bending and straightening the leg at the hip joint. When this bursa becomes irritated or inflamed, it causes hip pain. The pain tends to get worse with activity or when applying pressure to the affected area.



What causes it:

- Overuse
- Direct blow to the hip, either from a fall or running into something
- Incorrect posture / leg length difference
- Improper shoes for the individual



How to treat it:

- Rest
- Decrease inflammation
 - Ice
 - Non-steroidal anti-inflammatory drugs
 - Splinting the hip for a limited time
- Maintain range of motion in the hip joint
- Strengthen the muscles in the hips
- Correct incorrect posture
- Obtain proper shoes
- Orthotics



Strengthening exercises



Seek medical treatment for a more thorough explanation of this injury as well as the techniques for treatment and prevention in the future.



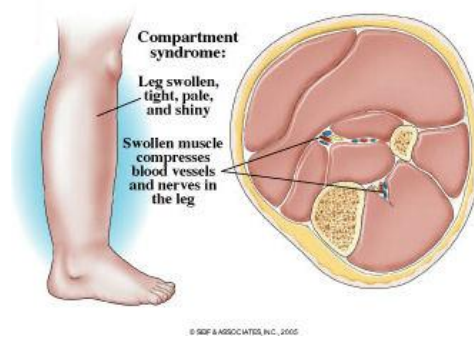
Ten Most Common Running Injuries



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INJURY: CHRONIC EXERTIONAL COMPARTMENT SYNDROME

What the injury is: Chronic exertional compartment syndrome is a muscle and nerve condition that causes pain, swelling, aching, burning, numbness, and tingling in the affected limb. Pain occurs during exercise. The exertional compartment test is used to determine the resting pressure in the area as well as the pressure in the area after exercise. This determines how much the pressure increases, which determines if chronic exertional compartment syndrome is the injury obtained.



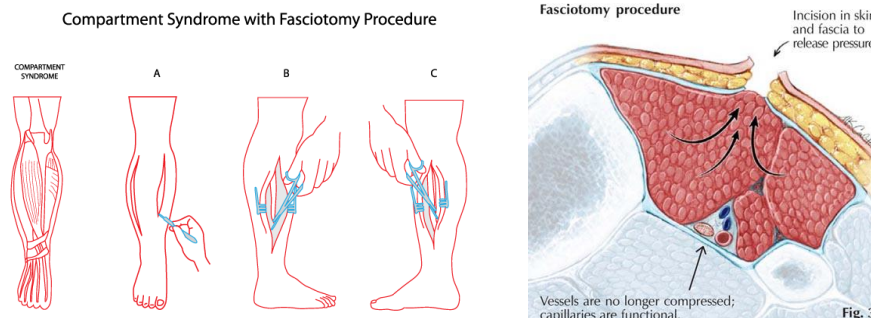
What causes it:

- Muscles expand with an increase in activity, however the fascia surrounding the muscles does not expand causing excess pressure to buildup in the lower extremity
- Overuse / Repetitive impact
- Poor foot posture / flat feet
- Hypertrophic changes in the muscles (muscles becoming stronger)

How to treat it:

- Rest
- Strengthening the muscles gradually over time
- Stretching muscles surrounding the compartment syndrome area
- Orthotics
- Severe cases may require surgery
 - Cutting open or removing some of the fascia to relieve pressure

Seek medical treatment to determine the best treatment for you!





Ten Most Common Running Injuries



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INJURY: ILIOTIBIAL BAND SYNDROME

What the injury is: Iliotibial band syndrome is an overuse injury in which the band of tissue extending from the hip to the knee on the lateral side of the thigh is tight or inflamed.

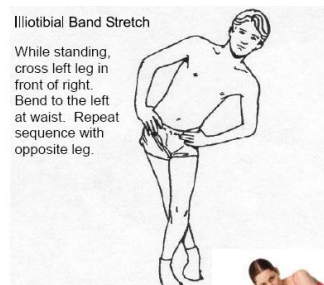
What causes it:

- Overuse
- Excessive straightening and bending of the knee
- Weak muscles of the hip that move the leg out to the side
- Running in improper shoes for your feet
- Running on an uneven surface
- Running in circles on a track for an extended period of time in the same direction



How to treat it:

- Rest
 - Stop activity completely or modify exercise
 - Cross training can be beneficial if no pain persists
- Decrease inflammation
 - Ice
 - Non-steroidal anti-inflammatory drugs
- Side-hip and glute stretches
 - Foam Roller
- Strengthening exercises for the outside of the hip
- Gradual increase in activity
- Surgery in worst-case scenario in which the iliotibial band is released/lengthened



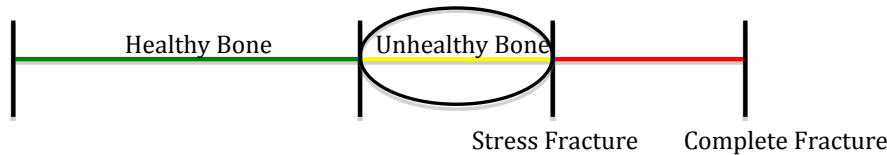
Seek medical treatment to learn more about this injury and the steps to take in order to prevent it from reoccurring.



Ten Most Common Running Injuries

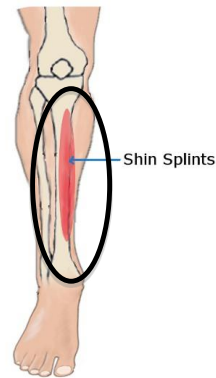
INJURY: MEDIAL TIBIAL STRESS SYNDROME / SHIN SPLINTS

What the injury is: Medial tibial stress syndrome is an overuse injury in which there is diffuse pain along the middle-distal tibia with exertion. Pain is usually associated with exercise, however as the injury progresses and gets worse, it can appear during rest. This injury is considered unhealthy bone, so it is very important to take care of this injury before it gets worse and becomes either a stress fracture or a complete fracture.



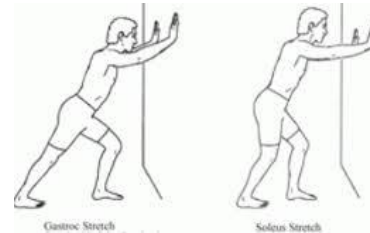
What causes it:

- Overuse/repetitive stress of the shin area
- Prolonged running on hard surfaces
- Sudden increase in activity
- Uneven running surfaces
- Unsupportive shoes
- Weak muscles surrounding the hip
- Inflexibility in the lower extremity
- Abnormal gait patterns



How to treat it:

- Rest
 - Take time completely off or modify training
 - Cross training can take the stress off of the legs to allow for healing
- Decrease inflammation
 - Ice
 - Non-steroidal anti-inflammatory drugs
- Avoid hard and uneven surfaces when exercising
- Muscle strengthening, especially the calf muscles
- Stretching of the gastroc and soleus muscles
- Supportive shoes
- It is best to keep constant training throughout the year instead of increasing training all at once



It is important to rest when this starts to occur to make sure stress responses/fractures do not occur.



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INJURY: PATELLOFEMORAL PAIN/CHONDRIMALACIA PATELLA/RUNNER'S KNEE

What the injury is: An overuse injury in which the athlete feels pain in the front of the knee and behind the knee cap, as well as tenderness around the knee. Pain is generally worse when going up stairs or hills.

What causes it:

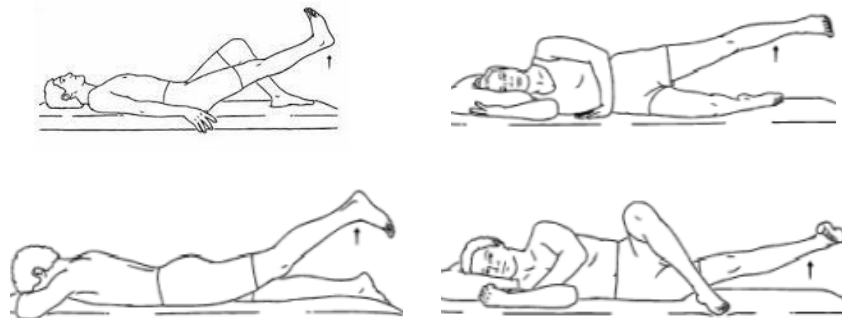
- Overuse
- Unsupportive shoes
- Uneven and hard running surfaces
- Over striding
- Excessive heel strike
- Hyperextension of the knee

How to treat it:

- Rest as soon as pain occurs
- Decrease inflammation
 - Non-steroidal anti-inflammatory drugs
 - Ice
- Strengthening and stretching of the front thigh muscles and hip muscles
- Orthotics
- Deep knee flexion should be avoided with this injury



Strengthening of the hip and thigh muscles





Ten Most Common Running Injuries



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INJURY: PLANTAR FASCIITIS

What the injury is: Plantar fasciitis is inflammation of the plantar fascia. The plantar fascia runs from the calcaneus to the phalanges that maintain the arch of the foot. Pain from plantar fasciitis is usually worse during the first few steps in the morning and after sitting for extended periods of time.

What causes it:

- Overuse
- Increased tension within the plantar fascia
- Unsupportive/Improper shoes
- Hard running surfaces
- Tight Achilles tendon and hamstring muscles
- Flat foot

How to treat it:

- Rest or decrease activity
- Decrease inflammation
 - Non-steroidal anti-inflammatory drugs
 - Ice massage
- Night splint
- Achilles tendon and hamstring stretching
- Orthotics
- Heel lift
- Proper shoes for the foot

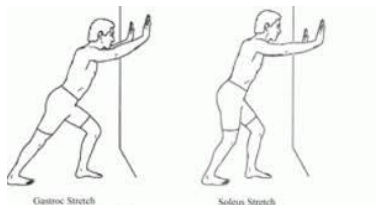


View from bottom of foot



Night Splint

Stretching





Ten Most Common Running Injuries

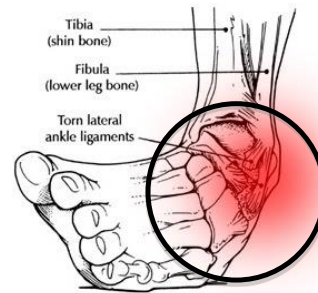


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INJURY: **SPRAINED ANKLE**


What the injury is: A sprained ankle is an injury that occurs when rolling, twisting or turning the ankle and stretching/tearing the ligaments that stabilize the ankle.



What causes it:

- Uneven running surface/terrain
- Weather (slipping on ice or slick road)
- Bad fall
- Worn down/unsupportive shoes
- Weak ligaments supporting the ankle

How to treat it:


- R.I.C.E. (rest, ice, compress, elevate)
- Over the counter anti-inflammatory medicine
- Restore range of motion, flexibility, balance and strength
- Wear an ankle brace → 
- Prevention:
 - Strengthen the ankle by using resistance bands and completing four-way ankle movements

TheraBand Instruction Manual

Ankle


Ankle Dorsiflexion*

- Sit on floor or couch with leg in front.
- Attach elastic to secure object in front of foot.
- Attach other end of elastic to forefoot.
- Pull foot backward toward shin.
- Slowly return and repeat.




Ankle Plantarflexion*

- Sit on floor or couch with leg in front.
- Hold elastic in hands.
- Attach other end of elastic to forefoot.
- Push foot forward.
- Slowly return and repeat.




Ankle Inversion

- Attach elastic to secure object
- Sit on floor with leg straight.
- Attach elastic to forefoot.
- Pull foot inward as shown.
- Slowly return and repeat.



Ankle Eversion

- Attach elastic to secure object
- Sit on floor with leg straight.
- Attach elastic to forefoot.
- Pull foot outward as shown.
- Slowly return and repeat.



*Caution: User must wear suitable eye protection such as safety goggles during this exercise to protect against possibility of eye injury as a result of the band or tube snapping towards the face if grip is lost or if the band or tube breaks.

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Single Leg Balance Exercise

Consult your physician, physical therapist, or athletic trainer for a return to running program following an ankle sprain.



Ten Most Common Running Injuries

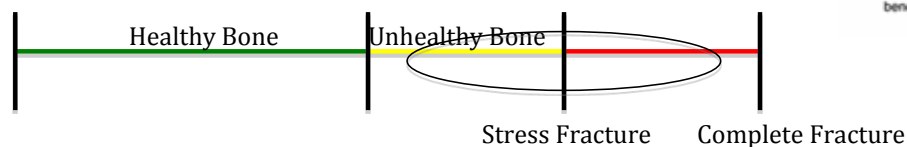
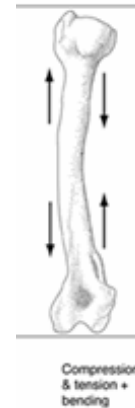


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INJURY: STRESS RESPONSE/STRESS FRACTURE

What the injury is: Stress responses and fractures occur as an overuse or repeated stress response on certain bones of the body. Both of these instances occur because of the repeated compression and tension forces on the bone. It is key to take time to rest in order for bones to replenish and heal. The main areas for excessive compression and tensile forces are the second metatarsal (second toe), the tibia (shin bone), and the femur (thigh bone).



What causes it:

- Overuse
- Excessive forces (compression and tension) on the bones for extended periods of time
- Not enough recovery time in between training sessions
- Worn down/unsupportive running shoes
- Running on hard surfaces

How to treat it:

- Rest
- Decrease inflammation
 - Non-steroidal anti-inflammatory drugs
 - Ice
 - Walking boot to decrease pressure from the area
- Gradual increase in activity once bone is healed
- Break up exercise bouts by cross training some days

It is important to seek medical treatment right away before a stress response or fracture becomes a complete fracture.



Ten Most Common Running Injuries



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INJURY: PATELLAR TENDONITIS

What the injury is: Patellar tendonitis is an overuse injury of the tendon that attaches the patella with the shin bone (tibia). Pain along the tendon is common for this injury. If this injury is not taken care of right away, the tendonitis can turn into tendinosis. If this continues to progress and get worse, tendinosis can turn into tendinopathy.



What causes it:

- Overuse
- Worn down running shoes
- Running surface
- Over striding
- Excessive heel strike
- Hyperextension of the knee
- Pronation/flat feet
- Inward rotation of the shin
- Tight muscles in the thighs (quadriceps and hamstrings)
- Muscular imbalance

How to treat it:

- Rest from painful activity
- Decrease inflammation
 - Non-steroidal anti-inflammatory drugs
 - Ice (ice massage)
- Proper running shoes for your feet
- Stretch muscles of the thigh as well as the calf muscle
- Patellar tendon strap/chopat strap



Ice massage to the painful area

Patellar tendonitis strap/chopat strap to help reduce the pain to the affected area. Rolled up pre-wrap also works great for this



It is important to seek treatment to determine methods for proper stretching and strengthening of the affected area to return to optimal exercise as soon as possible.