



Miami Orthopedics
& Sports Medicine Institute

BAPTIST HEALTH SOUTH FLORIDA

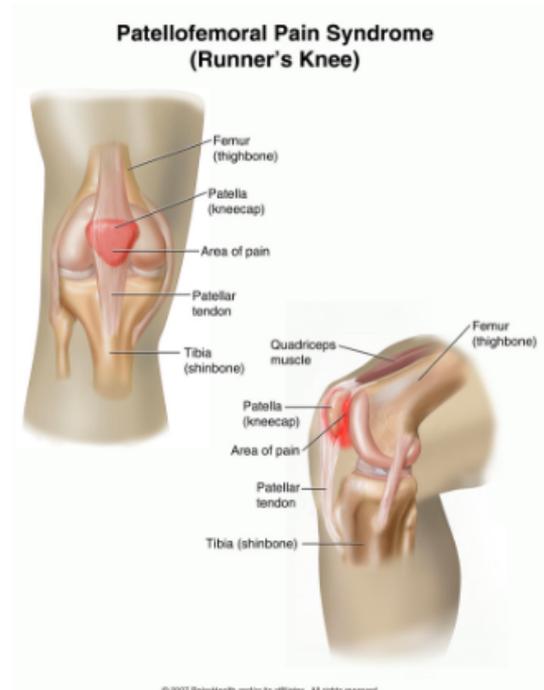
Founded by  Sports Medicine Institute

Common Running Injuries Treatment and Prevention Strategies

Valerie Wideroff PT, DPT, COMT

Runner's knee (PFS)

- Patellofemoral Syndrome
- Irritation of cartilage under kneecap
- Complaints of pain
 - During or after long runs
 - Stairs (descending)
 - Prolonged sitting



Runner's Knee (PFS)

- Risk Factors
 - Over pronation
 - Weak Quadriceps
 - Weak Hip muscles
 - Tight IT band
 - Anatomical Structural variances
 - Knees turn in while running
 - Patellar tracking issues

Runner's Knee (PFS)

- Treatment
 - Rest
 - ICE after run
 - Avoid incline/decline running
 - Strengthening
 - VMO, hip and core muscles
 - Stretching program
 - ITB, Quads, Hip flexors, calf musculature

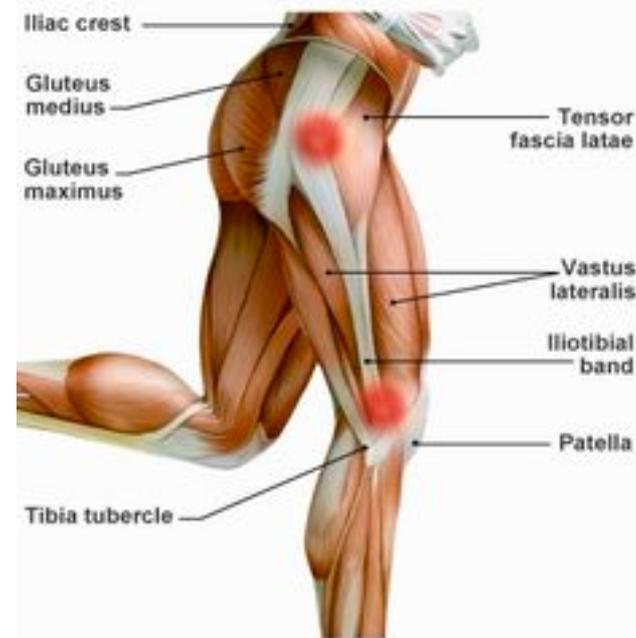
Runner's Knee (PFS)

- Running mechanics
 - Shorten stride length
 - Land with knees slightly bent
 - Knees tracking straight

ITB Syndrome

- Irritation of Soft tissue when rubbing against femur during knee ROM
- Affects seasoned runners as much as beginners
- Lateral knee or hip pain

Iliotibial Band Syndrome (ITBS)



Inflammation of the iliotibial band (ITB) causes outer knee pain and possible pain in the hip.

ITB Syndrome

- Risk Factors
 - Increase in running mileage too quickly
 - Running downhill
 - Wearing wornout shoes
 - Overpronation
 - Leg length discrepancy
 - Weakness

ITB Syndrome

- Treatment

- Rest and ICE
- Decrease running mileage
- Foam roller
- Stretching and Strengthening program (same as PFS)
- Change running route or direction on track



ITB Syndrome

- Running mechanics
 - Midfoot running
 - Shorten stride to center weight closer to midfoot

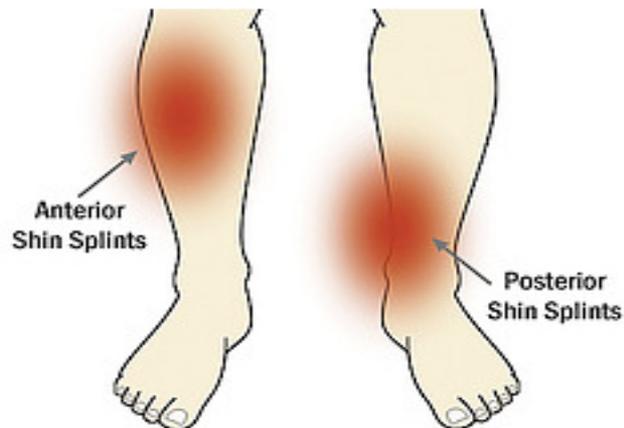


Hamstring Issues

- Risk Factors
 - Overly flexible or overly tight hamstrings
 - Weakness
 - Quads to hamstring imbalance
 - 3:2
 - Chronic sufferers
 - Run slow, steady pace, no sprints or intervals
 - Foam roll, stretching, strengthening (hip bridges, HS curls, leg press)

Shin Splints

- Medial tibial stress syndrome
- Small tears in muscles around tibia (shin)
- Overuse injury
- Can lead to stress fractures



Shin Splints

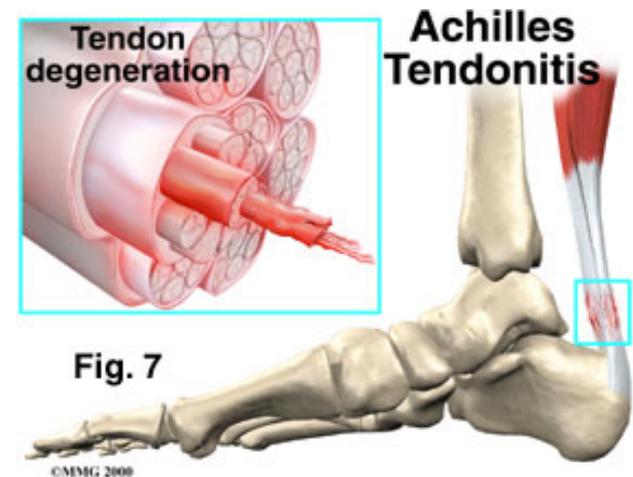
- Risk Factors
 - Improper footwear
 - Too many miles
 - Sudden increase in mileage
 - Sudden increase in intensity or frequency in activity level
 - Tightness calf musculature and plantar muscles

Shin Splints

- Treatment and Prevention
 - Rest & ICE
 - Lower impact activity and cross training
 - Biking and swimming
 - Proper footwear
 - Cushioned shoe for high arches
 - Rigid shoe for low arches (motion control)
 - Increase mileage slowly
 - 10% rule
 - Increase weekly mileage by 10%

Achilles Tendonitis

- Overuse injury of achilles tendon
 - Band of tissue that connects calf muscles at the back of the lower leg to your heel
- Risk Factors
 - Dramatic increase in training (hills, plyometrics, agility)
 - Tight/weak calf muscles

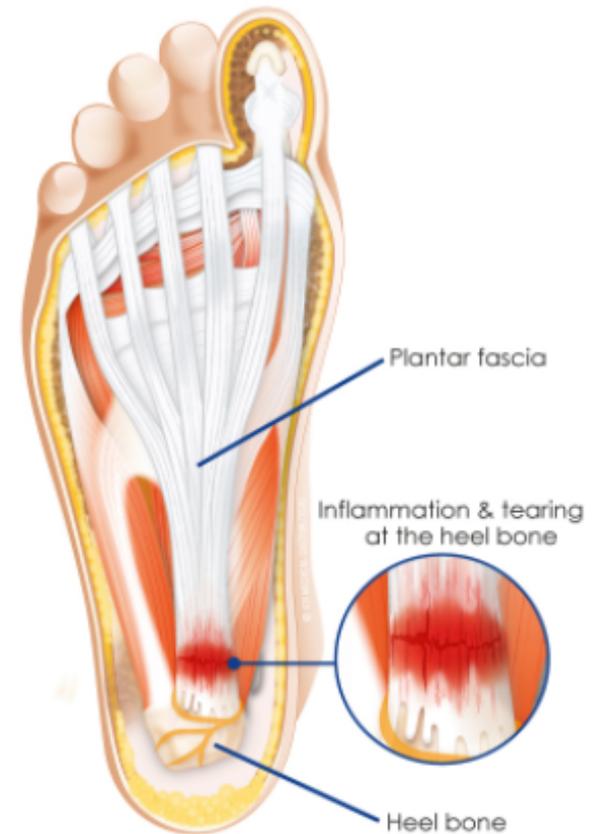


Achilles Tendonitis

- REST at first sign and ICE
- Stretching
- Strengthen ankle/foot musculature
- Avoid overstretching of calf muscles
- Compression socks

Plantar Fasciitis

- Heel pain
 - Worse pain in the AM
- Risk factors
 - Very high or very low arches
 - Tight calf muscles or hip flexors
 - Improper footwear
 - Increasing mileage too quickly
 - Sudden change in activity level
 - Low back pain
 - Weak core musculature



Plantar Fasciitis

- Treatment
 - ICE (frozen water bottle)
 - Plantar fascia & calf stretching/ foam rolling
 - Strengthen small muscles at bottom of foot (towel crunches)
 - Address low back issues
 - Orthotics

Warm up and Stretching for Runners

- Warm-up
 - Stretching
 - Static VS Dynamic
 - Static holds pre run are linked with higher incidence of injuries
 - Should be done post run
 - Dynamic warmup- controlled leg movements that loosens up muscles, increases heart rate , body temp , and blood flow

Dynamic warm up

- Walking 3-5 min
- Skipping
- Side shuffles
- Weave step (karaoke)
- Backward jogging
- Butt kicks
- Toy soldier
- Hacky Sack
- Leg swings