

Common XC Injuries and Prevention

Shin Splints

- Pain along the medial tibia, various conditions may cause pain

Usually related to:

- Improper or old footwear
- Pes planus/cavus (low or high arch), genu valgum/varus (knock-knee or bow legged)
- Poor running surface
- Too much activity too soon...i.e. you haven't run in 3 weeks and then start the season

How can I prevent it?

- Get a gait analysis at a specialty shoe store
 - Fleet Feet, Murphy's Fit, Runner's Edge
 - They will find the right shoe for your foot
 - Can also give you good advice and arch support products, etc
- Strengthen, Stretch, and Support!
 - 4 way ankle; Heel raises; Tennis ball arch massage
 - Calf and Achilles stretch is essential!
 - Do you need orthotics??
- Gradual progression into running
 - Build up your mileage slowly before the season starts!
- Switch to a softer surface a few days a week
 - Run on grass, or head down to the beach for a sandy surface
 - Cross train - bike, swim, elliptical

Common Questions

- What should I do if I already have shin splints?
 - Strengthen, Stretch, and Support
 - Check your shoes...are they the right ones for you? How old?
 - Ice, Advil, and REST or modify activity, e.g. swim, spin or elliptical
- Why don't you tape shins? Doesn't that help?
 - Taping shins can sometimes provide pain relief, but it doesn't actually help the shin splints heal. Since tape is pretty pricey these days and it doesn't really make the shin splints go away, we recommend you purchase a shin sleeve if you feel like you need some compression. We are happy to order these for you once the school year starts.
- I've done everything you recommended and it still hurts, even when I'm just walking around. What should I do?
 - See a doctor (preferably someone with a background in sports medicine) to rule out a stress fracture or other more serious injuries.

Stress Fractures

- Hairline fracture or weakened area of the bone. Typically point tender, swelling/redness possible, no traumatic event that caused pain. Common areas for runners: Shin, 2nd-3rd metatarsel, navicular.

Usually related to:

- Overtraining
- Poor conditioning
- Improper training techniques
- Ammenorheia, Female Athlete Triad

How can I prevent it?

- Gradual progression into mileage/activity
- Work with Coach Weber on your form
- Good shoes, proper support for your feet
- Make sure you have at least 1 day off a week; cross-train 1-2 days per week
- Eat a balanced diet, drink your milk!
- If you're having pain, talk to your athletic trainer or the team physician so we can catch it before it's a problem!

Common Questions

- I've had shin splints for awhile and they still hurt even though I've tried to take a few days off...could it be a stress fracture?
 - If your shin splints are not going away after a few weeks, especially if you've already tried all the basic treatment methods (see above), you should get it checked out. Yes, it could be a stress fracture. See your athletic trainer or team physician.
- If I get a stress fracture, what happens? How long am I out for?
 - Generally, the physician will put you on crutches or in a walking boot for 6-8 weeks. Then you have to *gradually* return to weight bearing activities.

Plantar Fasciitis

- Pain along the bottom of the foot, sometimes up into the heel. Especially painful in the morning, with weight bearing.

Usually related to:

- Increased activity, adding additional mileage without gradual progression
- New shoes, improper shoes
- Tight Achilles tendon
- Pes planus/cavus

How can I prevent it?

- Gradual progression into activity
- Strengthen, Stretch, and Support!
 - Foot intrinsics -Towel crunches, object pick-up; Heel raises; Tennis ball arch massage
 - Calf and Achilles stretch is essential!
 - Do you need orthotics??
- Proper shoes
- Gradually break in new shoes or orthotics – don't take them out for a 5 mile run the first day!

Common Questions

- I think I have plantar fasciitis and its killing me! What should I do?
 - Ice, Advil, REST or modified activity (must be pain-free)
 - Strengthen, Stretch, and Support!
 - Tennis ball massage, roll out with frozen soup can, or ice cup
 - Follow-up with your athletic trainer or team physician if it's not getting better.

Patellar Tendinitis

- Pain just below the kneecap (patella, may extend upwards over the patella toward the quad muscle. Typically a gradual onset; may also be point tender or inflamed.

Usually related to:

- Sudden increase in activity/mileage
- Too much repetitive activity
- Pes Planus, Genu Valgum
- Weak hip musculature, weak inner quadriceps (VMO)
- Tight hip flexors/quads, hamstrings

How can I prevent it?

- Gradual progression into activity
- Strengthen and Stretch
 - Clams, 4 way hip, hip bridges, short arc quad
 - Stretch the Big 4: Hamstrings, hip flexors, piriformis, calf
 - Foamroll daily if possible
- Proper shoes

Common Questions

- My knee hurts even when I'm just walking around school. How can I get it to calm down?
 - Ice, Advil, REST or modified activity (must be pain-free) for at least 3-4days
 - Strengthen and Stretch
 - Gradual return to activity – build up slowly over a week or so.
 - Still no improvement? Talk to your athletic trainer or team physician.
- What's the difference between Osgood-Schlatters and patellar tendinitis?
 - Osgood-Schlatters is an adolescent inflammatory condition caused by rapid growth and a sudden increase in quad strength...it has a lot more to do with growing up than how much you run or what shoes you wear, though those things can add to the problem.
 - There happens to be a growth plate right where the patellar tendon attaches; if the tendon is activated frequently and forcefully, it may cause a great deal of irritation and inflammation at this vulnerable attachment site. With patellar tendinitis, microtears in the tendon fibers lead to inflammation and pain. There's not typically any damage to the bone.

Note on orthotics

- We mention the importance of orthotics and arch supports A LOT in this pamphlet, but how do you know if you truly need them?
 - If you've had a lot of lower extremity pain or injuries, despite stretching, preventative exercise, proper training techniques, etc.
 - You've already purchased a good pair of running shoes, but still constantly experience foot or arch pain during activity.
 - You've consulted an athletic trainer, physical therapist, or physician who thinks you may need them.
 - ***If it ain't broke, don't fix it.*** You may have flat feet, a bunion, or be knock-kneed, but if you're not having any pain then you probably don't need an orthotic at this time.

In a nutshell...

- 1) Learn your limits...some pain you can push through, some pain you shouldn't!**
- 2) If it hurts, don't do it. Modify your activities to be pain-free.**
- 3) Know your feet and what makes them happy.**
- 4) Start training before the season starts – slow and steady is the key.**
- 5) Be proactive. Don't wait to see a medical professional if you're in significant pain.**