

Tibia Stress Fracture – the “5 P”s Navigating a Return to Sport

• Proper Diagnosis

- Exam and history of the pain time-line (when, where, why)
- X-ray first, MRI if over 2 weeks of pain and x-ray doesn't reveal diagnosis
- Bone scan if more than one stress fracture or something other than injury suggested
- Rechecking imaging may or may not be appropriate based on a case by case basis

• Protected Weight Bearing

- Minimum 6 weeks relative rest (no long walks, no running/jumping/landings)
- Consider cam walker boot, crutches, scooter
- “if it hurts it's not healing!”, “if it stopped hurting but restarted- may need to restart rest time-line!”

• Proprioception and Aerobic Exercise during rest time

- Swimming, zero gravity treadmill, arm conditioning, no leg CORE conditioning allowed

• PT to return to sport

- PT is essential before return to impact (progression back to running/jumping/landings)
- Running analysis to evaluate foot strike, ankle and knee and hip kinetic chain, correct shoe wear

• Pre-planning to reduce risk for another stress fracture-

“Don't start the competition with a disadvantage!”

Consider these at time of diagnosis and throughout treatment and return to sport steps

- Vitamin D In the summer consider 10 minutes of sunlight and then apply sunscreen to avoid sun damage
In the winter consider Vitamin D 4000 IU supplement daily. Talk to your doctor for more specific recommendations
- Nutrition- correct amount and type of calories allow for training, recovery, progress, and healing-
without enough or the right type of calories any of these steps can suffer and risk recurrence of injury
 - A sports dietician can be your champion to making you a champion!
- Hormonal- females that don't have regular, monthly periods (by age 16 or sooner) would benefit from an evaluation- this could be a risk for your stress fracture and for a recurrence of injury
- Consider labs (a blood test) and DEXA (a bone density) to help decide if your bone health is "as good" as your team mates your age.
- Coaching and sport career goals: Avoid Overtraining:
 - take at least one day off of running per week, do something different or simply rest those days
 - change surfaces and grade and direction
 - change shoes regularly
 - change goals for success- not only distance or time milestones, keep the sport fun

Recheck Technique Regularly:

 - Running analysis- foot strike, shoe wear
 - Ankle, knee, and hip kinetic chain

