Shin Splints A.K.A. Tibial Stress Syndrome

- **What is it?**
  - Area of inflammation of the tendons and muscles in the lower extremity
  - Inflammation of the periosteum of the Tibia

- **Location?**
  - Pain along the posteromedial border of the Tibia, usually in the middle or distal third

- **Cause?**
  - Overuse and poor training
  - Poor ankle mobility (adequate dorsiflexion)
  - Excess weight
  - Poor flexibility
  - Imbalance of the calf and shin muscles used to mobilize the forefoot with exercise
    - Devas and Beck- repetitive bending of Tibia causes a stress reaction
  - Traction theory:
    - Michael and Holder (14): Soleus inserts 4 in prox to medial mal forming a painful fascial covering of the deep compartment
    - Saxena (10) TP and FHL intersection is 8.2 cm prox to med mal and is the source of pain
    - Beck and Osternig (50)- if traction etiology then soleus and FHL are involved (not TP)

- **Diagnosis?**
  - History of the affected individual’s observation of the symptoms
  - Imaging studies (especially when question of a stress fracture)
    - X-rays
    - Bone scintigraphy (3rd phase)
    - MRI (periosteal and bony edema), STIR
    - High resolution CT

- **Treatment?**
  - RICE
  - Rest/stop high impact activity
  - Switching from impact workouts to non-impact workouts such as swimming or cycling
  - Perform ankle dorsiflexion exercises
  - Bracing and Physical Therapy
  - Anti-inflammatory medications

- **Prevention?**
  - Well-fitted shoes with appropriate support during high impact aerobics/orthotics
  - Stretching
  - Proper warm up


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