

# Stress Fractures

## Body Part

Predominantly lower limb bones that are exposed to high impact repetitive forces, for example the shin or foot.

[Type here] It's most common name ie Shin Splints, Tennis Elbow etc?

## Summary

A stress fracture is a small crack in a bone, or severe bruising within a bone. Most stress fractures are caused by overuse and repetitive activity, and are most common in the 2nd and 3rd metatarsal of the foot, especially in runners and other athletes who require to do a lot of jumping and/or running such as basketballers. They occur when a movement is repeated so often, weight-bearing bones and supporting muscles do not have enough time to heal between exercise sessions.

Causes:

- Change in exercise
  - Changing training surfaces e.g. from grass to concrete.
  - Change in footwear e.g. runner to footy boots.
  - Change in training intensity/frequency
- Old or ill fitting footwear
  - If you have the incorrect shoes you aren't getting the correct support or cushioning.
- Poor conditioning
  - Doing too much too soon can lead to stress fracture. Whether you're just starting off or whether a seasoned athlete.
- Improper technique
  - Altered mechanics can lead to more load put on structures that can't handle it.
- Foot posture
  - People with flat feet or rigid high arched feet are at higher risk of developing stress fractures.
- Osteoporosis
  - Reduced bone density leads to increased likelihood of stress fracture.
- Being overweight
  - This increases the likelihood of stress fracture dramatically as a lot more force is going through your foot.

## Symptoms:

- Focal point pain at site of stress fracture.
- Increased pain with activity is the most common complaint with a stress fracture.
- Occasional swelling.
- Pain subsides with rest.

## Treatment:

- Rest.
  - Especially from the activity you think caused the stress fracture.
  - Avoid any high impact exercises.
- Stiffened shoe or Moon Boot (for foot stress fracture)
  - This reduces movement in the affected bone and thus encourages healing.
- Orthoses
  - To help with offloading the injured bone and to correct abnormal mechanics that may have led to the injury in the first place.
- Paracetamol
  - For pain only. Doesn't speed up healing.
- Gradual return to activity
  - Once adequate rest and offloading has occurred, it's vital to gradually return to activity under your podiatrist or physiotherapist's guidance.

## Prognosis:

With adequate rest and treatment by one of our health professionals, depending on the severity of the stress fracture, you could have a graded return to activity within 4 - 6 weeks for most stress fractures. Stress fractures in the navicular and 5th metatarsal have poor blood supply, thus require longer offloading of up to 12 weeks.



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## Further information:

For further information, please contact our friendly team at Gen Health.

Picture Link: <https://www.healthlinkbc.ca/health-topics/tp10690>