

STRESS FRACTURE TREATMENT

Stress Reaction Definition: A stress reaction is the precursor to a stress fracture. While at the stress reaction stage, the bone structure is breaking down and becoming weaker, but does not actually contain any fracture.

Stress Fracture Definition: A stress fracture means the structure of the bone has been compromised by a crack or fracture.

What Causes Stress Fractures? Stress fractures can occur from abnormal force on normal bone (most common in athletes) and with normal force on abnormal or osteopenic bone (more common in older patients or young very thin females). Routine x-rays rarely show a stress fracture injury. A bone scan or MRI is needed to confirm the diagnosis. A bone density scan may be needed if concern for osteopenia exists. The following phases are assuming the bone quality is normal.

Phase 1: Injury Period (Usually 4-6 weeks)

*This period begins at the time of diagnosis, not at the time the athlete started feeling pain. The athlete must stay below their pain threshold throughout this phase. To accomplish this, weight bearing status is variable for each patient ranging from being on crutches, use of a special walking boot, to being able to swim, aqua jog or even ride the bike. This may be a trial to see what causes pain. You must be honest!

-The athlete should not be on medications to mask pain.

-The athlete must understand the way they interact with family, colleagues and training partners. It is not their fault that you are hurt. Be aware of displaced anger.

-Use this time to attend physical therapy, seek chiropractic treatments (Rob Green, DC), and/or massage therapy to assist in the healing process.

-Yoga (stretching) and core strengthening are very essential to safely returning to your pre-stress fracture activities when the time comes, as well as helping to maintain your level of fitness while healing.

-Think about your nutrition

Endurance athletes typically have an acidic nature to their blood. This side effect of endurance training, in addition to a poor diet, can lead to acid levels high enough that calcium is actually being pulled out from the bone. We suggest Calcium 1200 mg day/ Vitamin D 400 IU per day. Also consider a lactic acid buffer, such as Extreme Endurance, to make the blood less acidic. (Suggested Reading: The China Study by Colin Campbell and Thomas Campbell pages 204-211)

-Establish goals of what you want to accomplish from this with the 4-6 week timeframe in mind. (Example- increased flexibility, improve swim stroke or efficiency, spend more quality family time)

-Volunteer at a race to keep good triathlon KARMA. Go to a point you know your crew is training and give nutrition.

Phase 2: Recovery (3-4 weeks)

*We now assume the athlete has no pain. We continue all strengthening, flexibility, and training from phase 1. Our goal is to understand why the stress fracture has occurred.

-Gait analysis, shoe evaluation, bike fit, or swim stroke analysis are often necessary to make sure all forces are appropriately distributed.

-Understand if there was a training error. It is important to know if too much mileage, too much intensity, or too fast of a build was the initial culprit. Get a coach to help make a plan to recovery.

-Appropriate run progression is essential. Slow progression of weight bearing from deep well running to running at a certain percent of body weight (Alter-G treadmill) is very beneficial. We use a successful run/walk program to progress into running. Dr. Robert Green and Dr. Herring have a specific progression that is available.

-We recommend the following site for a plan on aqua jogging; <http://www.pfitzinger.com/labreports/water.shtml>

- Make a goal for this 4 week block.

Phase 3: Build Phase (3-4 weeks)

Increase volume – This is the time to prepare the body for the intensity to come.

Continue yoga and core exercises.

Continue technique focus.

Phase 4: Normal Prep for Race

*This is dependent upon the distance of the race , the fitness of the athlete, and the athlete's expectations.

Phase 5: Race

We have found that if you follow these phases step by step, you have a great chance of recovery. If you skip a step (or phase), you will fall down to the bottom of the steps to restart phase 1.