



## C A S E   S T U D Y

# Stress Fracture - 3rd Metatarsal

Dathan Ritzenhein's AlterG Experience

### INTRODUCTION

The biography of any distance runner can as easily be told through the timeline of their injuries as through their great races. Dathan Ritzenhein is no exception. Dathan's "career" started early; at the age of 10 he cycled with his dad's running club and by junior high he had traded in his wheels for a freshly sprouted set of legs that were being developed by daily 4 mile time trials. Two national wins during Dathan's high school competition made it clear he was no ordinary runner. His first year college performance was top of the class on any timed course. Dathan was maturing early, and with his success injuries began to occur. By his second year of college he had endured stress fractures in each femur and junior year a stress fracture in his foot ruined his performance in the Olympic trials. The injury dashed his Olympic hopes that year when he had to drop from the 10,000 meter race to attend to his foot.

*"I realized that my career was being dictated as much by my injuries as by my fitness and training. When I passed on the opportunity to use the AlterG treadmill for a previous injury, I regretted it, and was not going to let the opportunity slip by again."*

*"When I got the diagnosis and MRI results that I had a stress reaction of the 3rd metatarsal in my left foot I caught a plane the next day to Oregon so I could train on Alberto's AlterG treadmill which had been set up in a Colorado Altitude Training environmental room." - Dathan Ritzenhein*

### GOALS

- Following stress fracture diagnosis, incorporate de-weighting into rehabilitation protocol
- Develop a progressive return to activity
- Maintain fitness and function during rehabilitation

### PROGRESSION

- After talking with Alberto Salazar, Dathan started right in to training at 65% of body weight. *"The reduced impact load allowed me to train pain free and continue running with normal gait despite the stress reaction".*
- Training sessions were twice daily for 60 minutes at simulated altitude and progressed over three weeks to approximately 87% of body weight. Dathan completed one additional week of treadmill running training 2x60 minutes daily at 87% of body weight before progressively adding over ground running now 4 weeks after the diagnosis.

### PROGRESSION (cont.)

*"By adding 10 minutes of over ground running to the second training session each day I progressively, and in just 1 week, converted the second 60 minute training period to over ground running. I was now at week 5 and amazingly felt ready to return home. My starting point at home was the 60 minutes over ground running I had introduced while in Oregon."*

- *"Over the next 4 weeks I progressed back to a full training schedule without any symptoms."*
- *"I had recovered more quickly, had retained my fitness and was still on track for what I felt might be the break through performance I was capable of."*
- *"Just about 8 weeks after the stress reaction diagnosis I entered the Healthy Kidney 10K feeling stronger than ever."*

### RESULTS

Dathan not only felt strong, he was strong. He broke the 10 year standing course record with a time of 28.08 and besting the two time defending champion Craig "Buster" Mottram by 17 seconds.

*"Since then I've moved to Oregon where I can use the AlterG treadmill regularly. It looks like I may have my own soon!"*