

# SportsAT™

## Ankle Joint Stability Assessment



### PATIENT INFORMATION:

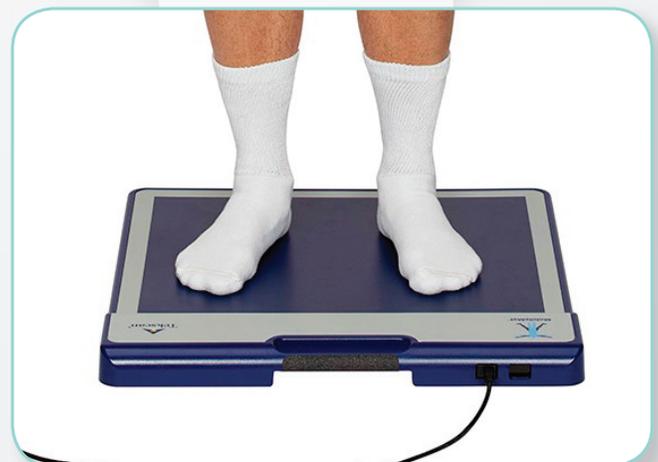
The patient is a 35 year old male who is a passionate, long distance runner, competing in distances of 50 kilometers, 100 kilometers and more.

### SYMPTOMS & COMPLAINTS:

The patient's primary complaint was instability in the right ankle with occasional pain in the right ankle joint. The patient's running was suffering due to his ankle issues.

### INITIAL EVALUATION WITH SportsAT:

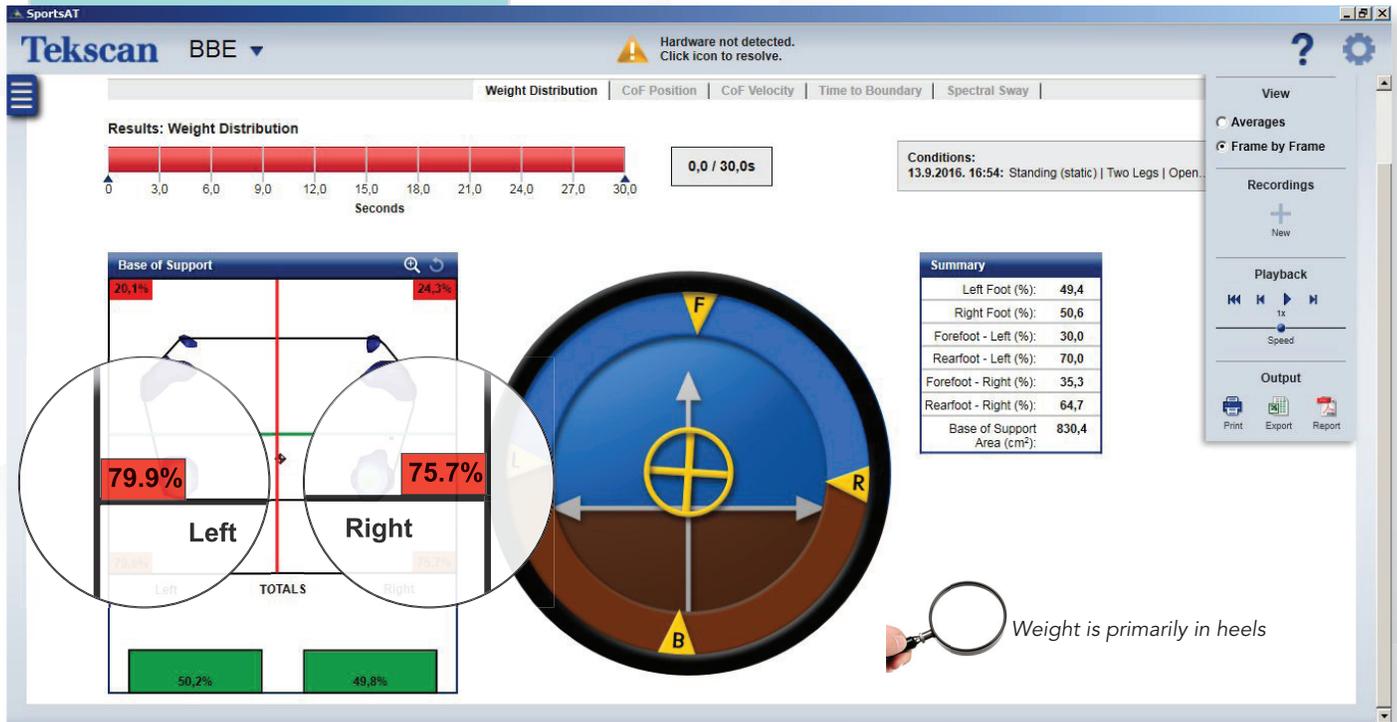
Using the MobileMat™ with SportsAT software, an evaluation was conducted to assess ankle joint stability. For the balance evaluation, the patient was asked to stand, quietly on the MobileMat for 30 seconds.



*The MobileMat is a portable, pressure measurement platform*

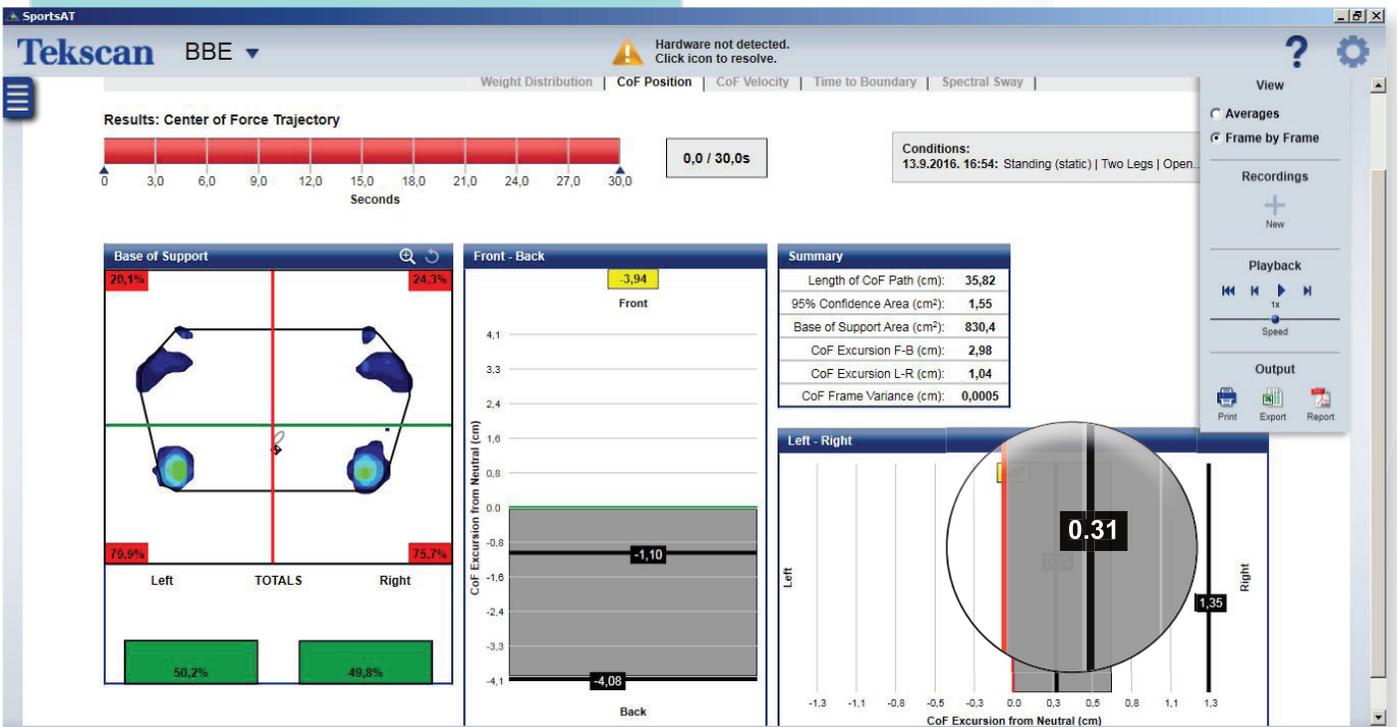
Notice that the patient has significantly more weight on the heels (L 79.9%, R 75.7%) than the forefoot.

### Test #1: Weight Distribution



When evaluating the Center of Force (CoF) excursion right versus left, the patient is leaning more towards his right side.

### Test #2: Center of Force (CoF) Excursion



# CLINICALLY PRESCRIBED EXERCISES:

Based on information received from the MobileMat, the patient was prescribed the following therapy exercises:

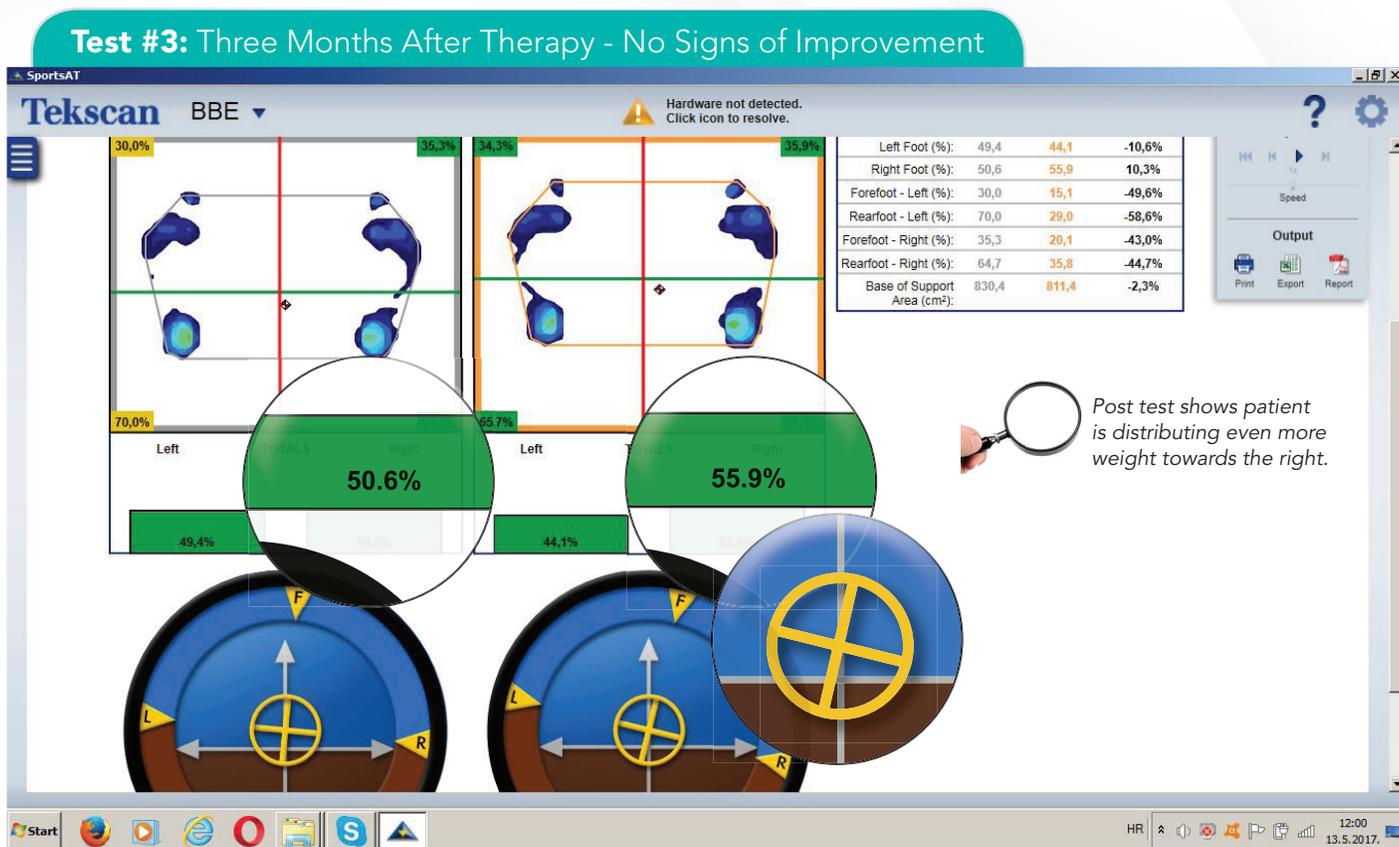
- Stretching exercises for the back, legs and abdomen on an exercise ball
- Proprioceptor exercises using a balance board

## TESTING TO CONFIRM PATIENT PROGRESS:

Following approximately three months of performing the prescribed therapy and exercises, the patient was re-tested using the MobileMat to determine the treatment effectiveness.

The results were not as expected with follow-up testing.

The MobileMat with SportsAT software was used to compare the test results. As indicated in the screenshot below, weight distribution did not improve from his original assessment.



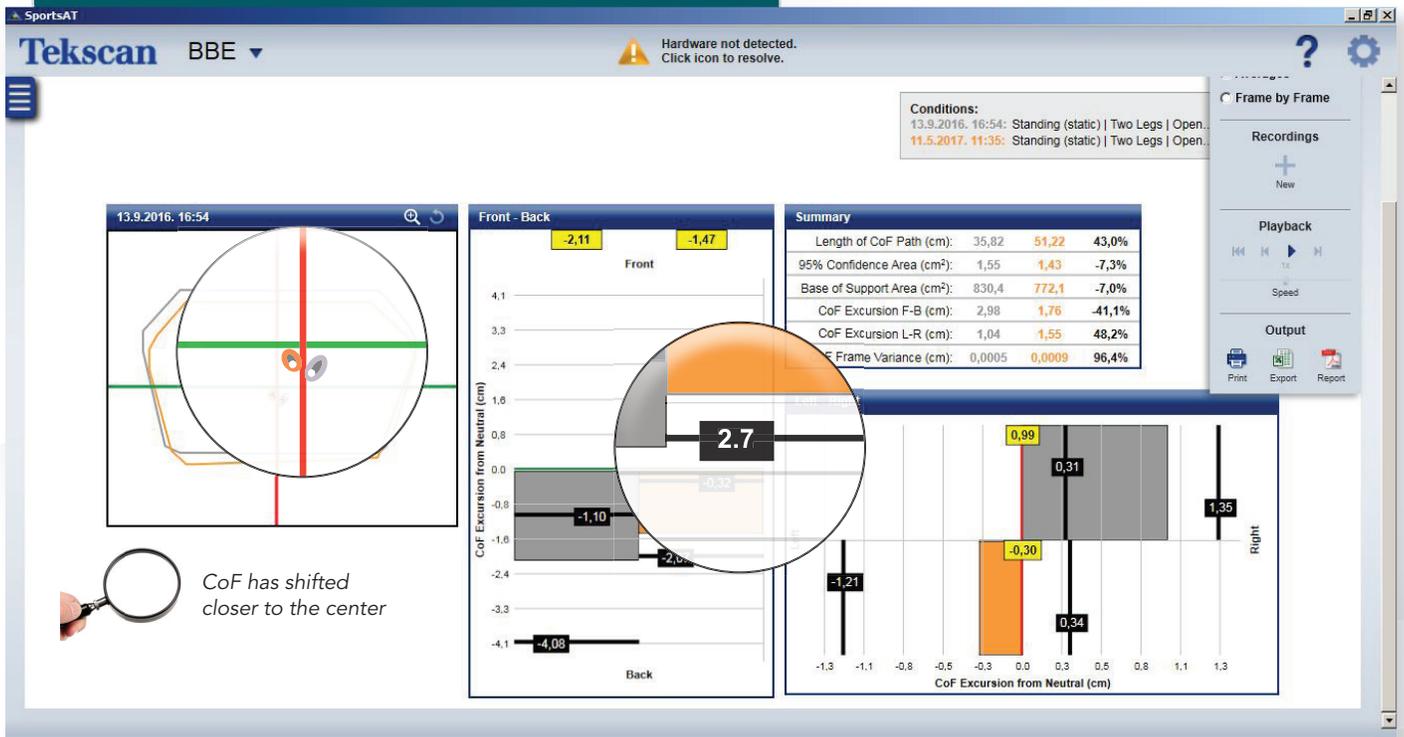
Comparison of weight distribution pre-rehab exercises and after several months show no signs of improvement.

The patient was then referred to a specialist physician, who is also an experienced long distance runner, with expertise dealing treating runners and developing treatment plans.

The physician prescribed very specific exercises focused on core strength, balance and muscle strengthening for the foot and metatarsal joints.

# TECHNOLOGY TO VALIDATE PATIENT PROGRESS:

## Test #4: A More Stable, Neutral Center of Force



In this final test, the Center of Force position shifted closer to the center line. Also, the Center of Force Excursion is reduced in the front-back position, indicating that the patient is more stable.

So after several months of testing and performing the prescribed exercises from the specialist, the patient was tested again with the MobileMat technology and SportsAT software to validate patient progress.

Notice the Center of Force position has shifted closer to the center line; as well the Center of Force Excursion is also reduced in the front-back position. The patient began to feel much better and more stable while running, without pain in the ankle joint. The patient was able to return to normal or standard running activities.

Monitoring patient progress with objective, consistent measurements is essential to confirming the patient is on the right path to recovery.

## OBJECTIVE SOLUTION FOR REHABILITATION ASSESSMENTS:

The MobileMat with SportsAT software was an essential tool for monitoring the patient's progress during rehabilitation. It provided an objective method to measure progress or lack of progress, allowing the clinician to adjust treatment until the results were satisfactory.

Disclaimer: The contents of this publication may be of interest to medical professionals or other health care providers. Such persons should exercise their own judgment in determining whether a particular product, treatment, therapy option, procedure, program or service is appropriate or legal for their practice or their patients.



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