

## Successful Level 1 study of plantar fasciitis treatment with the PiezoWave and F10G4

Based on 90 patients, a significant reduction in pain was verified after the first treatment as well as after 6 months.

The research group led by L. Vaamonde-Lorenzo from the San Carlos Clinic in Madrid is currently publishing a level 1 study on the Shockwave treatment of plantar fasciitis. It must be considered an extremely positive study for PW with F10G4. Please refer to the attached study for the settings and application. It is particularly remarkable that the users worked with a frequency of 8 Hz.

It can be found online under the following link:

<https://www.sciencedirect.com/science/article/abs/pii/S1988885619300148?via%3Dihub>

Unfortunately, the study is not freely downloadable, but can be downloaded by paying a fee.

Enclosed you will find an Elvation internal version of the complete study.



### Abstract

**Introduction:** Plantar fasciitis (PF) is one of the most frequent causes of thalalgia and disability. The effectiveness of extracorporeal shock wave therapy is an ideal alternative to conservative treatments.

**Objective:** To evaluate the effectiveness of the treatment with Piezoelectric Focal Shock Waves with echographic support and maintenance of the effect at 3 and 6 months.

**Materials and methods:** Causi-experimental, retrospective statistical study, June 2015 to June 2017, of 90 patients, 36.6% men and 63.3% women, with a mean age of 52 years, diagnosed with PF. Three sessions (one weekly for 3 weeks) of shock wave therapy (PiezoWave F10 G4 generator) were performed, with echographic support and weekly revision and at 3 and 6 months. Main variables: pain, using Visual Analogue Scale before and after each session and at 3 and 6 months and Roles and Maudsley Scale at the end of treatment and at 3 and 6 months.

**Results:** 2000 pulses per session were applied, medium energy intensity .45 mJ/mm<sup>2</sup>, median frequency 8MHz and median depth of focus of 15 mm. Statistically significant improvement was observed in the Visual Analogue Scale between the 3 treatment sessions and after 3 and 6 months post-treatment, obtaining a statistically significant improvement in all values ( $p < .05$ ).

**Conclusion:** Treatment with piezoelectric focal shock waves in PF may reduce pain from the first session and achieves a subjective perception of improvement, maintaining these results at 6 months post-treatment.

// according to the results obtained in our study,  
focal piezo-electric Shockwave Therapy  
(F10G4) reduces significantly the pain  
of plantar fasciitis from the first session,  
improving and maintain-ing this result even at  
6 months following the treatment //

Level of Evidence 1