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# New reliable method based on patients' gait helps to diagnose fibromyalgia

## This release is available in Spanish.

A researcher from the University of Granada has designed a reliable method that – combined with the diagnostic criteria of the American College of Reumathology– helps to diagnose fibromyalgia on the basis of patients' walk parameters, i.e. their gait.

Some of the altered parameters in this type of patient are: walk speed, step length, sole pressure on the ground, time on each foot, time on both feet, and step length. Thus, as it can be drawn from the research conducted at the University of Granada,.the analysis of these parameters and other diagnostic tests can provide a more reliable diagnosis of the disease,

This study was developed by **Jose María Heredia Jiménez**, from the Department of Physical Education, and coordinated by professor **Víctor Manuel Soto Hermoso**. Heredia analysed –from a multidisciplinary perspective– disorders on motion parameters in patients with fibromyalgia, and their relationship with physical activity and lifestyle.

#### A Common Disease

Fibromyalgia is a severe disease with increasing occurrence, characterized by unexplainable widespread chronic pain and fatigue. There are multiple "trigger points" affecting the whole body, and it mainly affects women. There are both pharmacological and non-pharmacological treatments aimed at alleviating the many symptoms of this disorder of unknown etiology.

The researcher from the University of Granada states that "patients with fibromyalgia present noticeable alteration of motion parameters associated with low performance in other variables as body constitution, and psychosocial and strength tests. These alterations undermine patients' quality of life". Thus, this study showed that patients with this disorder present altered motion parameters, and such parameters are associated to psychosocial and fitness aspects. Additionally, the group is currently studying the effect of multidisciplinary therapies based on physical activity, since "they are a good alternative to alleviate the symptoms associated with this disorder".

## 64 Women and 12 Men

For the purpose of this study, 64 women diagnosed with fibromyalgia by an ACR physician were chosen by the researchers of the University of Granada, in collaboration with the Asociación Granadina de Fibromialgia (association of fibromyalgia in Granada). Simultaneously, for the control group, 45 healthy women were randomly chosen. All of them were subjected to a series of medical and physical tests. In addition, the researchers proceeded in the same way with 12 men with fibromyalgia and 12 healthy men.

This research revealed that the symptoms experienced by these women are not limited to pain, but they also present disorders in other aspects that can affect their quality of life. The study showed that this type of patients present impaired motion, which can be used as an additional diagnostic parameter. This is a step forward, since so far, diagnostic tests limited to tender point tests, so it was easy to misinterpret the results. Thus, this test designed by Heredia may be a complementary diagnostic tool. ###

**Reference**: Authors: Heredia, J.M., Aparicio, V., Delgado, M., Porres, J.M., Soto, V.M. Title: Spatial-temporal parameters of gait in women with fibromyalgia Ref. Journal: *Clinical Rheumatology* (2009). 28(5); 595-598. Impacto: 1.644

### Seminars:

Authors: Heredia, J.M., Aparicio, V., Delgado, M., Soto, V.M. Title: Gait disorder in women with fibromyalgia Seminar: 2nd International Congress of Physical Activity and Public Health Character: Poster. Venue: Amsterdam (Holland) 2008

Authors: Aparicio, V., Heredia, J.M., Delgado, M. Title: Fibromyalgia impact is directly related to hand grip strength Seminar: 2nd International Congress of Physical Activity and Public Health Character: Poster. Venue: Amsterdam (Holanda) 2008

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