

# Belt to prevent and rehabilitate lower back pain launched

April 23 2013

---



FIK, Tecnalia and BTS launch a belt to prevent lower back pain problems and provide rehabilitation at home and at work. The Lumbia device can be used for patient's assessment, and for therapy during postural reeducation.

Nearly everyone will suffer a bout of lumbago at some point in their

lives, a problem that gets worse during working life, not to mention in old age. Right now, it is the main cause of sick leave in Spain, which means an average of 6 million working days are lost per year at a cost of up to 112 million euros for National Insurance. To help to remedy this condition, FIK and Tecnia in [collaboration](#) with the Italian company BTS have designed a technology that is not only able to prevent pain in the lumbar region but also to rehabilitate the damage caused.

Finding effective therapies to treat this disorder is one of the aims of therapists and researchers. However, relapses are frequent and [disc degeneration](#) in the lumbar region routinely ends up requiring surgery. This [new technology](#) known as Lumbia aims to remedy lumbago and, in particular, to obviate the need for surgery.

Lumbia is incorporated into a belt that the patients have to wear around their lumbar region and which includes a sensor that detects whenever the [posture](#) is not correct. In these cases, the belt emits a [vibration](#) to remind the patient that he/she must change that posture because it is bad for his/her health. At the same time, this sensor sends all the information it gathers to a computer so that the therapist involved can monitor the condition.

So the Lumbia has a dual aim: to rehabilitate in such conditions and to prevent damage in healthy patients. In the first case, the device not only helps the patient to correct bad posture, it also aims to facilitate the therapy [doctors](#) offer by providing data with which the evolution can be analysed during the period of time the therapy takes. So it can be used as an [assessment tool](#) which provides the therapist with reliable, precise information about the behaviour patterns of the patient's lumbar region.

The second objective of the Lumbia is to prevent damage in healthy patients. In this respect, the use of the Lumbia will help them to re-educate the posture of their lumbar regions when they are warned

through a vibration that the posture is incorrect.

Lumbia technology will be available on the market in 2014 and the Italian company BTS will be responsible for distributing it internationally; the aim is to reach the specialists in the sector so that they can use it on their patients, and companies, so that they can prevent damage being sustained by their staff.

## **Lumbago, a universal problem**

According to the study "Disorders of the lumbar spine and their relation with work in Spain" produced by the Mapfre Foundation, practically everyone will suffer a bout of lumbago at some point in their lives. Every year between 5 and 25% of the general population will suffer lumbago but this rate rises to 50% during working age, between the ages of 18 and 65. Right now, it is the main cause of [sick leave](#) in Spain, which means an average of 6 million working days are lost every year at a cost of up to 112 million euros for National Insurance.

According to data of the European Commission's Directorate-General for Research and Innovation it is estimated that throughout the European Union there are about 67 million people affected by this problem. For example, in Germany the direct costs resulting from lumbago are calculated to be €7,000 per person, which accounts for 75% of the total cost of being off work, as far as the figures for temporary disability in that country are concerned.

Provided by Tecnia Research and Innovation

Citation: Belt to prevent and rehabilitate lower back pain launched (2013, April 23) retrieved 19 April 2024 from <https://medicalxpress.com/news/2013-04-belt-pain.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.