

# MONITORING DEVICE TO PREVENT LUMBAR PAIN



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#### ABSTRACT

A research group of the University of Alicante has developed a device to control dynamic stability of lumbar spine. It allows establish a map pressure and warn about critical pressure levels according body movements. A prototype is being developed and soon it will be available for market demonstration.

This technology estimates lumbar pressure levels and gets a map pressures. Also, it has a specific software for data saving and processing, and it is customizable and water proof. It can be used in the following industrial sectors: Physiotherapy and Orthopaedic Technology, Biomedical Engineering and applications for Medicine and Human Health. The research group is looking for companies acquiring this technology for commercial exploitation.

### ADVANTAGES AND INNOVATIVE ASPECTS

The most important advantages of the device are:

- Estimation of lumbar pressure levels;
- Map pressures establishment:
- Allows data saving and processing;
- Software is calibrated for every holder;
- Water proof.

The main innovative aspects are:

- Dynamic control of lumbar spine stability, without interfering in daily activities;
- Easy to use;
- Adjustable;
- Measuring by high sensitivity and precision electronic sensors.

## MARKET APPLICATIONS

Application sectors for this technology are:

- Therapeutic services and monitoring equipment;
- Diagnostic services and equipment;
- Applications software for medical and health.

Other current and potential domains of application are:

• Pressure monitoring during daily activities;

- Sport resources and gyms;
- Physical medicine and rehabilitation (hospitals, postural therapy departments);
- Postural hygiene, ergonomics and risk prevention.

## COLLABORATION SOUGHT

The research group is looking for companies interested in acquiring this technology for its commercial exploitation.

- Type of partner sought: Industries.
- Specific area of activity of the partner: Health, Sports, Physiotherapy, Orthopaedic.
- Task to be performed: Technology licensing.