

A pain in the back

**Press Release**

**Back pain is a common complaint with many age groups. Day-to-day life movements such as bending, turning and picking up objects or even getting into a car, osteoporosis, general degeneration through ageing, sports injuries or trauma can all ignite a back pain which requires treatment. Kylie Tomich, expert Physiotherapist, Director of BodyMove in Sydney and trained in world-renowned Huber technology, explains the causes of backpain and how to relieve it.**

What is lower back pain?

Lower back pain is pain that is felt anywhere within a region bounded superiorly by the tip of the last thoracic spinous process, inferiorly by the tip of the first sacral spinous process, and laterally by vertical lines along the lateral borders of the lumbar erector spinae muscles. Lower back pain can be caused by a wide variety of different structures due to the fact the lumbar spine comprises of more than one different structure, these being: five vertebrae each separated by a shock absorbing disc and held together by ligaments and muscles that provide stability, strength and mobility allowing movements that are required in everyday life.

Low back pain (LBP) can be a result of damage to any of these structures and we usually refer to it as either *mechanical* or *discogenic* in nature. If either the ligament or muscle is injured then the pain is usually felt locally. If injury occurs to one of the discs, then pain can be referred into the buttock and/or down the leg. One can also experience neurological deficits, which means there is serious nerve impingement and one experiences things like numbness and tingling in the lower limb.

The disc itself is made up of an outer jelly like layer called the annulus fibrosus and an inner liquid part called the nucleus pulposus. If the nucleus part of the disc starts to leak out, it will put pressure on one of the nerves which can send pain down the leg.

Furthermore, degenerative changes can become evident in the disc(s) and/or the vertebra(e) although this is usually seen in chronic conditions. When the discs start to degenerate they become narrower and therefore the space between the vertebrae lessens, that is, they become close together. This inturn can result in compression of the nerves and the vertebrae rubbing together. This chronic type of pain can be more difficult to alleviate because there are a number of factors to deal with.

## How Does SpineForce® work?

*Huber* works up to 80 muscles at once, strengthening the muscle chains, optimizing coordination and stimulating balance and improving posture. An oscillating platform together with ergonomic handles, provides the initial assessment and co-ordination score, identifies weaknesses and/or imbalances in the spine, which is then coupled with additional Physiotherapy recommendations to strengthen core spinal muscles.

Developed from a concept allowing users to work alone, *Huber* possesses a user-friendly interface with a virtual coach. The degree of manual exertion, the rotation of the mobile plate, and the choice of body position are all factors that combine to allow the design of a multitude of exercises for stimulating the deep muscles of the spinal column for balance, coordination, posture and strengthening.

Huber was developed to strengthen the deep spinal muscles and re-activate the micro-movements and vertebral articulation mobility. Furthermore it allows the recuperation of the postural equilibrium and improvement of adapted co-ordination skills.

Huber places the body in a state of imbalance, simultaneously it employs resistance to force the deep muscles of the spine to be strengthened therefore overcoming the muscular deficiencies. Electromyographic studies have shown that a greater numbers of muscles are recruited during axial rotation of the torso and the isometric component increases muscular performance helping to restore atrophied paravertebral muscles.

With Huber it is possible to determine if the stabilizing muscles are working in a tonic or phasic motor pattern. Therefore if phasic rather than tonic stabilizing muscle action is occurring Huber will determine if this is the case. Huber can therefore prevent compensatory "cheating" techniques such as when the patient can look stable but using the global muscles

Huber prevents patients from being able to perform extended sessions of highly functional exercises, when they have poor deep stabilizing muscles. This way we can monitor the ability to control any progression of exercises and also monitor fatigue.

A more specific comparison of sides is evident with the use of huber due to the ability to dynamic assessment able to be performed. This becomes especially important if the patient has a unilateral condition, for example Lumbar spine pain.

Assessment of muscle chains gives us an understanding of Automatic activation of postural muscles and Transverse Abdominus (TA) and Multifidus co-contraction.

When assessing and rehabilitating these muscles a therapist MUST take into account that multifidus is inhibited following an episode of LBP and wasting will occur whereas TA activity will change

Different dysfunctional motor patterns require different protocols for rehabilitation so we must therefore determine if the dysfunctional patterns are dependent on previous rehab or chronicity remembering some are easier to fix than others.

The outstanding ability of Huber to retrain proprioception, motor learning and monitor ongoing pain levels are key elements to getting better

### **What are the benefits of SpineForce®?**

*Huber* is the only machine in the world to strengthen the core spinal muscles\*. This is based on the understanding that the core of the body is where the power is derived, and that as the nerve centre of the body, it is the foundation of all bodily movements, responsible for balance, coordination, posture and overall spinal health.

SpineForce®'s *Huber* delivers a technology coined as 'a physiotherapists' new best friend', allowing for the provision of consistent programs for patients' unique needs. Treatments are not just for specific ailments, they are ongoing, helping physiotherapists who have had extensive training with Huber to establish themselves as not only a viable option, but the only option for wellness care.

- **Fitness in a new generation**

Developing harmonious musculature is the desire of many men and women. With *Huber*, each minute is used for the maximum utilisation of all the muscles (up to 80 at the same time). Finally, intelligent muscle strengthening that radiates from the deep muscles of the spinal column!

- **Prevent back pain**

A muscular spinal column is a healthy spinal column, and a healthy spinal column is a pain-free spinal column. *Huber* allows for the adjustable stimulation of the deep muscles of the spinal column in order to obtain a strong and mobile back that is stable and pain-free within a few sessions.

- **Improve muscle performance**

In order to achieve optimum movement, the spinal column must have maximal stability. *Huber* provides a natural response to this need with appropriate training. It exercises all the muscles, from the deepest muscles

of the spinal column to the most superficial muscles of the limbs, in situations specific to each athlete - and the results are rapid! Improved balance, improved coordination and improved performance.

- **Restore density to the muscles of the sedentary woman**

Bone density in women depends on muscle strength, which is often weak. *Huber* offers all women, even the least fit, a new way of strengthening their skeletons while improving their figures. Simple, progressive exercises strengthen the deep muscles of the spinal column, and, as a result, the whole musculature. Posture and elegance return quite naturally.

- **Mobility of the elderly**

The back ages due to lack of muscle strength and excessive demands. Balance is impaired and falls become more frequent. *Huber* provides specific exercises for the deep muscles of the spinal column for developing stability, balance and flexibility, for everyday life without falls!

### **Who Can Use SpineForce®?**

*Huber* is gentle and can be applied to almost anyone, regardless of age or physical shape; empowering them to reclaim and maintain their complete bodily homeostasis and achieve optimum health. This helps the CORE spinal muscles hold the vertebrae in the proper alignment relieving disc and nerve pressure. This can provide immediate, lasting and measurable results. *Huber* is the perfect partner for spinal manipulation and decompression therapy.

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