



## Fitness Trainers and Strength Soles®

### Introduction

As a Fitness Trainer, you understand that having strong and good functioning core muscles will help your clients with:

- Increased balance which can assist golf, football, rugby, etc
- Improved strength through our trunk which can assist golf, tennis, baseball, etc
- Improved ability to undertake day to day activities
- Reduced risk of injury
- Improved posture
- Reduce the likelihood of back pain caused by weak core muscles.

### Core Muscle Training Challenges for Fitness Trainers:

There are 3 major challenges facing Fitness Trainers in the **strengthening** and **activation** of the core muscles:

#### 1. Poor Exercise Compliance

Pilates, Yoga, Gym ball exercises, Bio-Feedback devices and Tai Chi are all great methods of improving the strength and capabilities of this area of muscles. Unfortunately, many people do not follow through with these activities. This may be due to:

- Inclination
- Laziness
- Fatigue
- Time
- Cost
- Capacity - due to injury and pain

#### 2. Poor Core Muscle Activation

Even if we have Strengthened our Core Muscles, activation of them at the right time to prevent back problems or increase strength is a major challenge for many people.

#### 3. Stand Still or Keep Moving

- The Spine needs movement - To ensure vascular supply and adequate nutrition to the discs, cyclic loading and unloading must occur
- However - A 50-minute period of cyclic or prolonged flexion of the spine causes an 85% reduction of the muscular stabilizing forces of the spine that begins in the first 5 minutes. Even after a ten minute rest period it has been demonstrated that these muscles DO NOT effectively improve their function and become reactive again (p.38, Cailliet 2003).

**Low Back Disorders a Medical Enigma**, Rene Cailliet  
(Lincott Williams & Wikins 2003)

So you can't stand still and you can't move continuously. What can you do? Well, through improved strength and recruitment of the spinal stabilizing muscles, the spine and associated structures are protected to the best ability allowing normal movement with limited impact on the spinal structures.

Getting clients to follow through with Core Muscle exercises and effectively learn to activate them is a major challenge for most Fitness Trainers

### A Product to Help You Overcome these Challenges

Backassist Technologies have developed a simple, unique and inexpensive way for people on their feet to automatically "switch on" these important spinal stabilizing muscles through the use of an innersole called Strength Soles

### How do Strength Soles work?

Once cut to fit, the Strength Soles are placed into shoes which are worn regularly i.e. when standing at work or home. Although difficult to actually feel, the Strength Soles are slightly angled. This triggers the body to protect itself as it believes it is no longer standing on a flat surface. As a result the muscles around the spine are "switched on" in preparation for maintaining balance and an upright posture when moving and standing as seen in Real Time Ultrasound Studies. This increases stability in the spinal structures (discs, ligaments, joints, nerves, etc) and strengthens the muscles around the spine over time.

### Potential Benefits for your Clients by Better Utilising Muscles Developed in your Programs

If worn regularly these Strength Soles may:

- Improve recruitment and increase strength of spinal stabilizing muscles
- Increase intra-abdominal pressure increases stability
- Improve posture
- Improve limb strength enabling greater force when playing sport
- Improve balance and reactions to challenges to balance
- Reduce likelihood of back injury as protective muscle responses are heightened

So if your clients are sportspeople looking for greater strength, have poor posture or balance or simply want to improve their overall strength from the inside, out, they may benefit from adding Strength Soles to their existing exercise and day to day routine.

### Clients most likely to benefit:

- Clients who work on their feet and who are required to complete bending, lifting or twisting like movements as part of their duties for example nurses, waiters, factory workers, tradesmen and allied health practitioners
- The elderly with balance problems who have good proprioception in their feet
- Clients with weakened spinal stabilizing muscles i.e. post injury, who have been advised to strengthen this group of muscles by their health practitioner to prevent and/or reduce chronic LBP e.g. worn in conjunction with Pilates classes etc.
- Sportspeople who are looking for increased power and stability when competing e.g. golf, tennis, football etc.