

Improved function. Decreased pain. Increased mobility. Now that's *getting back* into life ~ that's SpineOne!

In this issue:

Focus Topic:
Prevention of
Back Pain

Tips for
Preventing a
Back Pain
Episode

**Focus Topic: Prevention of
Back Pain**

**Does Exercise work as a Primary
Prevention Strategy?**

Over the next couple of months we will focus on the evidence for primary, secondary and tertiary prevention interventions. Primary prevention seeks to prevent the problem from occurring using interventions such as exercise, ergonomics, and education. In Secondary prevention the injury has occurred and the focus shifts to preventing the transition from acute to more costly chronic pain and disability. Common strategies include early identification of risk factors (i.e, yellow flags), behavioral and educational approaches, work place strategies, and early interventions such as interdisciplinary functional restoration programs specifically designed for those at high risk. Tertiary prevention aims to minimize the impact of chronic pain and disability that has already occurred.



**New study Supports Exercise for
Primary Prevention**

According to Stanely Bigos, M.D., primary prevention can work. Dr. Bigos, emeritus professor of orthopedic surgery at the University of Washington, and colleagues performed a systematic review to see whether any primary prevention method finds support in high-quality clinical trials. (See Bigos et al., 2009.) They concluded that medicine and industry may have overlooked an effective prevention strategy: exercise in both workplace and community settings. Dr. Bigos was interviewed by the BackLetter, "We found strong and consistent evidence that exercise has a significant impact, both in terms of preventing symptoms and reducing back pain-related work loss," said Bigos recently.



Seven of eight trials identified in the review concluded that exercise has a preventive effect.

They also stated, "We did not find high-quality scientific evidence to support any other prevention methods," Bigos commented. "Passive interventions such as lumbar belts and shoe inserts did not appear to work. And we couldn't find any evidence from high-quality clinical trials that ergonomic interventions, reduced lifting programs, or training sessions can prevent back pain or disability related to back pain."

Exercise was the single intervention that seemed to work consistently for primary prevention. Regardless of the exercise strategy, there appeared to be a benefit. It was thought that exercise in general may increase confidence in movement and activity, diminish fears of injury, and alter attitudes toward pain.

Reference: Bigos SJ, Holland J, Holland C, Webster JS, Battié M, and Malmgren JA, High-quality controlled trials on preventing episodes of back problems: Systematic literature review in working-age adults, *The SpineJournal*, 2009; 9:147-68.

**Tips for Preventing a Back
Pain Episode**

This information is based on the best available scientific evidence.

- Avoid a fully flexed spine during loading tasks. (i.e., picking an object up from the floor).



Spine-sparing technique

Thank you for
reading SpineOne
Connects!

To receive a copy
electronically, email
us at newsletter@
spineonemed.com.

Tips for Preventing a Back Pain Episode continued

- Disc herniation cannot occur unless flexed.
- Shearing of the spine is reduced and spine muscles are maximized for support.
- Ligaments cannot be damaged.



Flexion-Incorrect

- **Work and other tasks should be varied.**
 - Too much of any one activity will get you into trouble. Frequent postural changes will result in tissue recuperation from cumulative strain.
- **If possible, avoid lifting or spine bending shortly after rising from bed (1-2 hours after rising).**
 - Forward-bending stresses on the discs and ligaments are higher after rising from bed.
 - Therefore discs can become injured at lower levels of load and degree of bending.
- **Stabilize the spine through muscular bracing prior to light tasks.**
 - Lightly contracting the stabilizing muscles of the spine will help stiffen and remove the slack from the system.
 - Bracing as shown below will reduce risk.



Incorrect Pushing Out



Correct Bracing

- **Allow time for the disc nucleus to "equilibrate" and the other structures of the spine to recover after prolonged flexion.**

- After prolonged sitting or stooping, spend time standing.
- Back extension in standing can help to "equilibrate."

Slouched Sitting



To learn more about SpineOne and the durable outcomes we deliver, please contact at:

SpineOne
13980 Blossom Hill Road, Suite D
Los Gatos, CA 95032
408-264-1021
info@spineonemed.com

More information is also available at
www.spineonemed.com



SpineOne's focus – and commitment – is to work with clients in helping them achieve optimized function in their lives. Through medically-directed treatment teams and evidenced-based rehabilitation, SpineOne has a direct impact on decreased neck and back pain and improved mobility and function. Another component of SpineOne's treatment approach is through a partnership with DBC – Documentation Based Care. This partnership brings together state-of-the-art technology with compassionate and collaborative treatment to deliver sustainable outcomes.