# OPTIMAL HEALTH UNIVERSITY<sup>TM</sup>

Presented by Katie Gravesen, DC

## **Stress and Back Pain**

Dr. Gravesen acknowledges the connection between the body, mind and spirit, especially when it comes to wellness. One arena where Dr. Gravesen frequently sees this connection at play is in regard to back pain and its relationship to emotional stress.



#### **Which Comes First?**

A study from the Centers for Disease Control (CDC) estimates that 34 million people suffer from low-back pain (LBP) (*Arthritis Rheum* 2007;57:656-65). The CDC classifies LBP as a critical public health problem.

Stress is also widespread. It was originally intended to warn of a serious threat to survival. But today the natural stress response has morphed into a chronic problem, because people lead increasingly "unnatural," fast-paced lives.

In a classic "chicken or egg" quandary, researchers have questioned whether stress triggers physical pain. Or, does pain create stress? According to Dr. Gravesen, the answer is that both feed each other, no matter which comes first.

A wealth of scientific research supports the link between these two com-

mon conditions.

For many, back discomfort and stress go hand in hand. In fact, there is scientific proof that pain and psychological distress may be causes *and* consequences of each other (*J Clin Epidemiol* 2003;56:463-71).

For instance, a study from the Rosalind Franklin University of Medicine and Science found that patients with already-established chronic LBP may be more susceptible to stress (*Emotion* 2006;6:180-92). Other studies indicate that stress exacerbates back pain.

## Work Often a Trigger

Dr. Gravesen often observes that work is a major source of stress for many patients.

One analysis found that the No. 1 work-related health complaint was stress, affecting 27 percent of participants (*Med Lav* 2008;99:9-30). Interestingly, the No. 2 complaint was backache (18 percent).

Some professions have exceptionally high rates of both back pain and stress. For example, flight attendants under heavy stress from job demands also have an elevated incidence of LBP (*J Adv Nurs* 2008;61:492-502).

And, a study conducted in Sweden finds that on-the-job psychological stress is just as damaging as physical exertion. Researchers from the Karolinska Institute in Stockholm found



that burned-out and mentally exhausted employees have the highest rates of back pain (*J Adv Nurs* 2008;62:84-95). These same employees report elevated levels of psychological stress, including anxiety and depression.

## **Breaking the Cycle**

Psychological factors may reduce the effectiveness of any care plan for treating low-back pain (*Health Care Women Int* 2008;29:339-48). So, chiropractors believe that it is key to attend to both issues in order to break the brutal cycle.

Chiropractic focuses on correcting *vertebral subluxations* (*Clin Orthop Relat Res* 2006;444:236-42). Vertebral subluxations are dysfunctional segments in the spine, which occur when spinal bones (vertebrae) are slightly out of place, or not functioning properly.

People who undergo chiropractic care for conditions such as low-back pain are more likely to notice improvement in their symptoms (*Spine* 2006;31:611-21).

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Many studies show that even severe LBP is reduced by chiropractic approaches, which offer "great pain relief" (*J Manipulative Physiol Ther* 2004;27:358-65). Chiropractic may also be part of a larger solution because it offers psychological benefits for patients as well, and can improve quality of life (*JVSR* 2008:1-7).

The effectiveness of chiropractic care for relief of LBP and stress can be measured by patient satisfaction. Techniques commonly used in chiropractic provide high levels of satisfaction and physical functioning, along with mental health benefits (*Spine* 2003;28:1355-62).

#### The Mind Worsens Pain

While it is logical to assume that psychological traumas instigate emotional problems, many people do not realize that these same events also influence the development of chronic pain (*Pain* 2008;134:69-79). This relationship is demonstrated by research, which determined that people who have more stress also have more pain (*Eur Spine J* 2008;17:393-405) as calculated by biomarker levels, such as stress chemicals, in the body.

Originally, our stress response was triggered rarely and only by impending danger. These days, our frenzied lifestyles elevate the stress response to critical mass for long periods. This persistent activation alters hormonal balance, in turn causing additional stress, and physical impairment of many body processes (*Chiropr Osteopat* 2006;14:25).

Research has proven beyond a shadow of a doubt that high levels of stress hurt your body. Other mental and emotional conditions can have a detrimental impact on the body as well. Anger, for one, increases muscle tension near the site of an injury, and can cause pain in addition to aggravating existing LBP (*Emotion* 2006;6:309-19).

## **Imagining the Worst Creates the Worst**

Of course, chronic pain of any sort is frightening. A large number of studies have looked into the relationship between pain and an individual's tendency to focus on the worst-case scenario. Psychologists term this habit "catastrophic thinking," which triggers additional stress.

Many people with LBP share the common fear that their pain indicates serious injury (*Clin J Pain* 2007;23:720-5). Other LBP patients who've had symptoms for a long time worry that the pain means they're well on the way to becoming disabled, or will have the pain forever (*Spine* 2006;31:1038-46).

These stressful beliefs strongly influence whether a patient will actively engage in treatment. A "catastrophic" attitude can also have a direct effect on whether the chosen care strategy will work — or not (*Spine* 2008;33:966-72). Researchers advise tackling these negative thinking patterns directly, which can help patients deal with their pain realistically.

## How Chiropractic Addresses Emotional Well-Being

Researchers theorize that the additional time chiropractors spend with their patients contributes to overall patient satisfaction. Studies have shown that greater satisfaction boosts the odds of recovery (*Spine* 2005;30:2121-8).

Back pain patients who are under tremendous psychological distress find that chiropractic alleviates suffering from both conditions (*JVSR* 2006:1-6).

Another analysis indicates that joint manipulation may lower stress. Researchers measured the levels of stress markers in the circulating blood after chiropractic care, and found the levels were significantly lower (*J Am Osteopath Assoc* 2007;107:387-400).

## **Supplemental Strategies**

Your doctor may suggest additional strategies for back pain/stress relief to try in conjunction with chiropractic adjustments. These strategies include the following.

## Reflexology

Reflexology is particularly well suited to help manage LBP (*Complement Ther Med* 2008;16:3-8).

Reflexology uses massage and pressure point therapy on the feet, and sometimes the hands, to promote calmness and healing. In one UK survey, 94 percent of respondents said that reflexology had a positive effect on their LBP and provided relaxation as well (Complement Ther Med 2008;16:9-14).

#### Exercise

One study showed that regular, highintensity aerobic exercise reduces pain and "psychological strain" in patients with chronic LBP (*Phys Ther* 2007;87:304-12).

Another study advocates participation in fun, physical recreational activities for people with both LBP and stress. While targeted back exercises did not help these study participants, less-structured choices did alleviate pain and improve psychological health (*Am J Public Health* 2005;95:1817-24).

## It's Time to Break Free

Back pain and stress are not "all in your head." If you are caught in this discouraging cycle, there are many factors to address. This office has targeted strategies that work, so ask for an appointment today.

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