

# ACUPUNCTURE AND STRESS

## About STRESS

New research released this year suggests that a staggering one in six people suffer from stress\*.

There are many different causes of stress which are primarily related to a situation or event and how a person deals or responds to that situation. The signs of stress can therefore differ from one person to the next and may manifest in the form of conditions such as IBS, anxiety, migraines, insomnia or depression, back pain and fatigue.

Those suffering from stress symptoms use a number of coping mechanisms with many people finding traditional acupuncture effective in not only helping relieve symptoms but to also identify and treat the root cause of stress.

Stress, or any intense emotion, acts like a traffic jam, blocking the free flow of energy (Qi) in the body - when under a lot of stress the body releases stress hormones which can have an adverse effect and can cause muscles to tighten which reduces blood flow and provision of nutrients and oxygen to the tissues\*\*.

Through traditional acupuncture, these energy blockages can be addressed.

### References

\*The Stroke Association (2011)

\*\*NHS Choice 2009

## How acupuncture can help

Many people have found that acupuncture can be effective in helping to treat stress and the various conditions that are symptomatic of stress. These include insomnia, back pain, migraines, anxiety and depression.

Acupuncture aims to treat each person individually and an acupuncturist will recognise that each individual will have a unique experience of their problem. The practitioner will apply a number of different diagnostic processes to gain a picture of the health of your body such as feeling pulses and looking at your tongue to help identify imbalance in Qi, the body's motivating energy.

Any imbalances are addressed by inserting ultra fine needles into specific points in the body to restore the balance of Qi. With regards to stress an acupuncturist will aim to identify what imbalances are causing the symptoms of stress, rather than treating the condition in isolation.

Acupuncture has been found to be effective in treating various stress related conditions:

- **Back Pain:** One of the ways in which acupuncture can help back pain is by improving muscle stiffness and joint mobility. Acupuncture can increase local microcirculation (Komori 2009), which helps reduce swelling and bruising
- **IBS:** Stress activates the sympathetic nervous system, which can stimulate colon spasms, resulting in abdominal discomfort. In people with IBS, the colon can be oversensitive to the smallest amount of conflict or stress. Acupuncture activates the opposing parasympathetic nervous system, which initiates the relaxation or 'rest and digest' response.

Dr Nick Read from the Gut Trust says: "Complementary therapies treat the whole person, body and mind in the context of a person's life. Acupuncture uses the stimulation of fine needles inserted into the skin to induce a feeling of relaxation and confidence that helps people cope with stress related illnesses such as IBS."

- **Migraines:** By stimulating nerves located in muscles and other tissues, acupuncture leads to release of endorphins and other neurochemical factors and changes the processing of pain in the brain and spinal cord, promoting pain relief (Zhao 2008, Zijlstra 2003, Pomeranz, 1987)

Lee Tomkins, Director, Migraine Action says: "Traditional medication for managing migraine isn't always the first choice for migraineurs, particularly for those people who have suffered for a number of years and tried many treatments without success. Some migraineurs prefer to look at complementary therapies, such as acupuncture, to manage their condition as part of an overall migraine management plan. Many of our members have reported that acupuncture can help provide short term pain relief and increases their overall sense of well-being, so they can stay healthy in-between migraine attacks, and it may even contribute to a quicker recovery period after the migraine has diminished."

- **Chronic Fatigue:** Reducing inflammation by promoting release of vascular and immunomodulatory factors (Kavoussi 2007, Zijlstra 2003).
- **Anxiety:** Acupuncture can alter the brain's mood chemistry, reducing serotonin levels (Zhou et al, 2008) and increasing endorphins (Han, 2004) and neuropeptide Y levels (Lee et al, 2009), which can help to combat negative anxiety
- **Depression:** Acupuncture is believed to stimulate the nervous system and cause the release of neurochemical messenger molecules. The resulting biochemical changes influence the body's homeostatic mechanisms, thus promoting physical and emotional wellbeing
- **Insomnia:** Acupuncture can alter the brain's mood chemistry, reducing serotonin levels (Zhou et al, 2008) and increasing endorphins (Han, 2004) and neuropeptide Y levels (Lee et al, 2009), which can help to improve sleep

## Relevant Case studies

Please see below for various patient case study examples:

### **Insomnia**

Cathryn Hawker aged 62, from Birmingham suffered from severe insomnia for a number of years caused by excessive worry and anxiety. Symptoms included difficulty getting to sleep and waking as early as 3am and being unable to get back to sleep. She was treated by BAAC member Natalie Saunders who developed an acupuncture plan aimed at reducing feelings of stress and calming the mind as well as talking to her about her worries. Immediately after the first treatment she felt deeply relaxed and slept better that night. After four treatments she was regularly sleeping through till 5am and soon after that through till 9am, she now only returns for top up treatments.

### **Stress and Depression**

Patient X has been under a great deal of stress because of her family situation, turning to acupuncture initially in order to have treatment for post viral shingles and depression. It was later agreed that she was being treated for stress and depression. She was seen once a week every three weeks which was then changed to once a week every two weeks. After about 5 treatments, she felt an immediate boost to her mood and after the first treatment her shingle pain no longer bothered her. Acupuncture has enabled her to feel energised and able to deal with daily tasks.

### **Stress and Depression**

After working in a very pressurised job and an abusive environment patient X was very stressed and depressed. Bereavement after losing her father also added to her feelings of stress and depression, patient X turned to acupuncture in order to receive some release. The first treatment was a combination of acupuncture and counselling. After taking a case history the acupuncturist started by just chatting with her using counselling skills to better understand her mental and emotional state. After a course of treatment she was feeling much better and she certainly looked much more relaxed and happy.

### **Stress and Depression**

Patient Mrs Kerry Dowd turned to acupuncture after suffering bereavement, her feelings of stress and depression were also a result of a lymphedema caused by mastectomy and work stress. The Patient reported huge improvement after one set of treatment but pulses were still not as relaxed as the acupuncturist would have liked. After two sessions however, the pulses were much more even and relaxed. The Patient felt very well and it was agreed that she didn't need any more treatment at that time.

## About traditional acupuncture

Acupuncture is a tried and tested system of traditional medicine, which has been used in China and other eastern cultures for thousands of years to restore, promote and maintain good health. Its benefits are now widely acknowledged all over the world and in the past decade traditional acupuncture has begun to feature more prominently in mainstream healthcare in the UK.

Traditional acupuncture takes a holistic approach to health and regards illness as a sign that the body is out of balance. The exact pattern and degree of imbalance is unique to each individual. The traditional acupuncturist's skill lies in identifying the precise nature of the underlying disharmony and selecting the most effective treatment.

The World Health Organisation (WHO) recognises that acupuncture can help resolve specific symptoms or conditions. Traditional acupuncture can also be used as a preventive measure to strengthen the constitution and promote general wellbeing.

An increasing weight of evidence from Western scientific research (see below) is demonstrating the effectiveness of acupuncture for treating a wide variety of conditions and revealing the mechanisms by which it acts. From a biomedical viewpoint, acupuncture is believed to stimulate the nervous system, influencing the production of the body's communication substances - hormones and neurotransmitters. The resulting biochemical changes encourage the process of homeostasis, activating the body's self-regulating systems, thus stimulating its natural healing abilities and promoting physical and emotional wellbeing.

In May 2009 NICE (National Institute for Clinical Excellence) issued guidelines recommending that acupuncture be made available on the NHS for chronic lower back pain.

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## The evidence

Research	Conclusion
<b>Systematic reviews (SRs)</b>	
<b>Back Pain</b>	
. Lewis K, Abdi S. Acupuncture for lower back pain: A review. <i>Clinical Journal of Pain</i> . 2010; 26(1)(pp 60-69)	A systematic review based on an online search of all articles and other literature in the past 50 years related to acupuncture efficacy in low back pain, including case reports, randomized controlled trials and meta-analyses. They found multiple, generally poor quality studies. Newer studies show promise but effectiveness has not been clearly demonstrated. They conclude that more, high-quality research is needed but that acupuncture can continue to play a significant role as an adjunct to a multidisciplinary approach for managing low back pain
<b>Back Pain</b>	
Cherkin DC, Sherman KJ, Avins AL, Erro JH, et al. A randomized trial comparing acupuncture, simulated acupuncture, and usual care for chronic low back pain. <i>Arch Intern Med</i> . 2009; 169(9):858-66.	Randomized controlled trial of acupuncture for chronic lower back pain (LBP). Compared individualized acupuncture with standardized acupuncture, simulated acupuncture and usual care. 638 adults received 10 treatments over 7 weeks. After 8 weeks, 60% of patients receiving any type of acupuncture showed improvement in their level of pain and function, compared with 39% for those receiving normal care. This superiority persisted at one year though to a lesser degree. Concludes that, compared with usual care, acupuncture (of whichever type, including simulated) has

	<p>beneficial and persistent effects on chronic LBP, which resulted in clinically meaningful improvements in function.</p> <p>They performed a secondary analysis to try to identify subgroups of participants particularly responsive to acupuncture. The strongest predictors of improvement in back function and symptoms were higher baseline levels of these measures, receipt of an acupuncture treatment, and non-use of narcotic analgesics. Benefit from acupuncture compared to usual care was greater with worse pre-treatment levels of back dysfunction. No other factors were important in this respect.</p>
<b>IBS</b>	
Lim B et al. Acupuncture for treatment of irritable bowel syndrome. <i>Cochrane Database Syst Rev.</i> 2006 Oct 18;(4):CD005111.	Systematic review and meta-analysis of acupuncture for IBS. Analysed pooled results of 6 trials. Acupuncture treatment and sham acupuncture found to be equally effective. For two studies without a sham control, acupuncture was more effective than control treatment (herbal medicine or psychotherapy) for improvement of symptoms.
Anastasi JK et al. Symptom management for irritable bowel syndrome: a pilot randomized controlled trial of acupuncture/moxibustion. <i>Gastroenterol Nurs.</i> 2009 Jul-Aug;32(4):243-55	Twenty-nine people with IBS were randomized to 8 sessions of either individualized acupuncture/moxibustion or sham/placebo. Average daily abdominal pain/discomfort improved in the Acu/Moxa group but there was little change in the sham control (a statistically significant difference between groups). The intestinal gas, bloating, and stool consistency composite score showed a similar pattern of improvement. Conclusions: Acu/Moxa treatment shows promise for symptom management for IBS.
<b>Migraine</b>	
Linde K et al. Acupuncture for migraine prophylaxis. <i>Cochrane Database of Systematic Reviews</i> 2009 Issue 1. Art.No.: CD001218. DOI: 10.1002/14651858.CD001218.pub2.	A review of 22 trials that investigated whether acupuncture is effective for the prevention of migraine attacks. Patients who received acupuncture had fewer headaches than those given basic care. 'True' acupuncture and sham acupuncture seemed to be similarly effective. When acupuncture was compared to proven drug treatment, patients receiving acupuncture tended to report more improvement and fewer side effects. <u>Overall, migraine patients benefited from acupuncture, and it was at least as effective as, or possibly more effective than, drug treatment, with fewer adverse effects.</u>
<b>Chronic Fatigue</b>	
Wang JJ et al. [Randomized controlled study on influence of acupuncture for life quality of patients with chronic fatigue syndrome]. <i>Zhongguo Zhenjiu</i> 2009a; 29: 780-4.	A randomised controlled trial to observe effects of acupuncture on quality of life in 70 patients with chronic fatigue syndrome. Patients were allocated to treatment with 'real' acupuncture or sham acupuncture, three times a week. Individuals' own perception of their health condition and total score were significantly improved after treatment in the observation group (all $P < 0.05$ ). There were no adverse effects reported. <u>The researchers concluded that acupuncture can improve the quality of life of patients with chronic fatigue syndrome.</u>
Wang JJ et al. [Randomized controlled clinical trials of acupuncture treatment of chronic fatigue syndrome]. [Chinese]. <i>Chen Tzu Yen Chiu Acupuncture Research</i> 2009b; 34: 120-4	In the same trial, the researcher, observed the effects of acupuncture on the amount of fatigue experienced by the patients. After the treatments, the amount of fatigue experienced by patients in both groups had decreased significantly from baseline. Real acupuncture resulted in a greater reduction in mental fatigue than sham acupuncture, but the change in physical fatigue was similar in the two groups. <u>The researchers concluded that acupuncture can relieve physical and mental fatigue in patients with chronic fatigue syndrome.</u>
<b>Anxiety</b>	
Samuels N et al. Acupuncture for psychiatric illness: a literature review. <i>Behav Med</i> 2008; 34: 55-64.	A literature review of acupuncture for psychiatric illness, which presents research that found acupuncture to increase central nervous system hormones, including ACTH, beta-endorphins, serotonin, and noradrenaline. <u>It concludes that acupuncture can have positive effects on depression and anxiety.</u>

<p>Luo WZ et al. Clinical study on "Jin's three-needling" in treatment of generalized anxiety disorder. Chinese Journal of Integrated Traditional &amp; Western Medicine 2007; 27: 201-3.</p>	<p>A 6-week randomised controlled trial that compared the clinical effect of acupuncture with anti-anxiety drugs in 58 patients with generalised anxiety disorder. The clinical effects were evaluated with HAMA, clinical global impression (CGI), and treatment emergent symptom scale (TESS). Serotonin levels in platelets, and plasma levels of corticosterone and ACTH were also measured before and after treatment. The clinical effects in the two groups were equivalent, while unwanted effects were fewer in the acupuncture group than the medication group (<math>P &lt; 0.05</math>). The platelet concentration of serotonin and plasma ACTH levels fell significantly but similarly in both groups, while plasma corticosterone levels did not change. The reviewers concluded that acupuncture had a similar anti-anxiety effect to routine Western medicine but with less unwanted effects, and that this effect may be realised through regulating platelet serotonin and plasma ACTH levels.</p>
<p><b>Depression</b></p>	
<p>Schroer S, Adamson J. Acupuncture for Depression: A Critique of the Evidence Base. CNS Neurosci Ther. 2010 Nov 21[Epub ahead of print]</p>	<p>This review identified a number of limitations in existing studies of acupuncture for depression. (i) Patients: often no rationale for patient selection procedures. Concerns about the generalisability of study populations. (ii) Intervention: poor quality acupuncture, not generalisable to routine clinical practice (iii) Comparisons: concerns about therapeutically inappropriate sham acupuncture. (iv) Outcomes: short-term, narrow range. Other methods may be better suited to evaluating acupuncture care. <u>Uncertainty remains about the value of acupuncture care, as routinely practiced in the West, and this has not been resolved by trials to date.</u></p>
<p>Zhang Z.-J et al. The effectiveness and safety of acupuncture therapy in depressive disorders: Systematic review and meta-analysis. Journal of Affective Disorders. 2010;124 (1-2) (pp 9-21)</p>	<p>Systematic review with meta-analysis of acupuncture for various depressive conditions, particularly major depressive disorder (MDD) and post-stroke depression (PSD). Twenty higher quality RCTs of MDD (<math>n = 1998</math>) and 15 of PSD (<math>n = 1680</math>) were included. The efficacy of acupuncture alone for MDD was comparable to antidepressants, but not different from sham acupuncture. Acupuncture plus antidepressants did not yield better outcomes than antidepressants alone. For PSD, acupuncture was superior to antidepressants and waitlist controls in both response and symptom severity. Acupuncture-related adverse events were significantly lower than with antidepressants. Conclusions: Acupuncture therapy is safe and effective in treating MDD and PSD and could be considered an alternative option for the two disorders.</p>
<p><b>Insomnia</b></p>	
<p>Yeung WF et al. Traditional needle acupuncture treatment for insomnia: a systematic review of randomized controlled trials. <i>Sleep Med</i> 2009; 10: 694-704.</p>	<p>A systematic review of Chinese and English literature that included 20 randomised controlled trial comparing traditional acupuncture with placebo, sham acupuncture, drugs, other treatments or non-treated controls for insomnia. Most of the trials concluded that acupuncture was significantly more effective than benzodiazepines for treating insomnia, with mean effective rates for acupuncture and benzodiazepines being 91% and 75%, respectively. Acupuncture also appeared to be more effective in improving sleep than sleep hygiene counselling and sham acupuncture. <u>The reviewers concluded that the results were "somewhat promising" for acupuncture in the treatment of insomnia, but that all the trials had methodological shortcomings so a clear conclusion could not be drawn.</u></p>
	<p>A systematic review of Chinese and English literature that included 30 clinical trials and case series examining the extent to which research supports the use of acupuncture in treating insomnia. In all, 93% of the studies showed positive treatment effects with acupuncture in improving various aspects of sleep. <u>The reviewers concluded, however, that although acupuncture has been shown to be safe and have "great potential" to be an effective treatment for insomnia, the evidence is limited by the quality of studies and mixed results from those with sham acupuncture.</u></p>