

# Anxiety (2025)

## Overview: acupuncture for anxiety

### An overview of the evidence base of acupuncture for anxiety

Over the past decade, systematic reviews, integrative reviews, and evidence summaries evaluating acupuncture for anxiety have drawn broadly consistent conclusions: acupuncture shows potential benefits for anxiety, but the quality of evidence needs to be improved before researchers are able to make definitive claims.

Several methodological challenges hinder acupuncture research. Chief among them are ongoing debates regarding appropriate sham or placebo controls, as well as questions about the external validity of clinical trials [1-3]. External validity is sometimes weak because the acupuncture administered in trials does not reflect the individualised and holistic approach used by traditional practitioners. Additionally, many studies provide an insufficient number of treatments [4]. The lack of funding opportunities in Western countries means that there is limited research that applies directly to acupuncture in the UK.

There is surprisingly little research that has looked at acupuncture for anxiety. A specific limitation in the evidence base of acupuncture for anxiety is that many trials focus on anxiety associated with another condition such as cancer, preoperative anxiety, or anxiety related to IVF. This complicates interpretation and may weaken the strength of anxiety-specific conclusions (see Commentary). However, it also highlights a potential strength of acupuncture: its holistic nature allows for the simultaneous treatment of multiple conditions.

A good example of acupuncture's ability to address multiple issues is the area of oncology. The American Society of Clinical Oncology (ASCO) recommends acupuncture to reduce anxiety in individuals with breast cancer [5]. European Society for Medical Oncology recommend acupuncture to address nausea and vomiting, fatigue and hot flashes in those with breast cancer [6]. The ASCO recommends acupuncture to help reduce general cancer related pain, musculoskeletal pain, surgical or procedural pain, and chemo-induced peripheral neuropathy (CIPN) [7]. Consequently, there is evidence to suggest that acupuncture can address multiple signs and symptoms for people with breast cancer.[SH1]

In clinical practice, acupuncture is often used to support patients with complex health needs. In other words, it is not just oncology where acupuncture may be able to address multiple issues. The systematic reviews listed below included clinical trials that investigated anxiety associated with other conditions such as [depression](#); [infertility](#); [insomnia](#). Please see our factsheets on these conditions for more information.

## Key points

- The current evidence base suggests that acupuncture can help those with generalised anxiety disorder (GAD).
- The current evidence base suggests that acupuncture can help those with anxiety associated with other conditions.
- More research is required, especially in the UK and other Western countries.
- A key advantage of traditional acupuncture is its ability to address multiple symptoms without the additive risks seen in polypharmacy.
- When delivered by a qualified practitioner, acupuncture is considered a safe and well-tolerated therapy [8].

### [Short presentation on acupuncture and mental health](#) Ian Appleyard, Research & Policy Manager

## Systematic reviews

### [Effectiveness of electroacupuncture on anxiety: a systematic review and meta-analysis of randomized controlled trials \(2023\) \[9\]](#)

This systematic review analysed the results of 37 randomized controlled trials (RCTs), making it one of the more comprehensive reviews to date. However, the included studies assessed the effects of acupuncture on anxiety across a diverse range of conditions, including insomnia, depression, functional dyspepsia, polycystic ovary syndrome, irritable bowel syndrome, constipation, and situational anxiety in otherwise healthy individuals. This heterogeneity limits the confidence with which we can interpret the overall findings (see Commentary). Despite this, the review provides preliminary evidence that acupuncture may offer benefits for a broad spectrum of individuals experiencing anxiety.

**Hong et al, the authors, concluded that the evidence suggests that electro-acupuncture can relieve anxiety.**

#### Main results

Electro-acupuncture significantly reduced the Hamilton Anxiety Rating Scale (HAMA) score [Mean difference (MD): -1.13 (95% CI: -2.55-0.29), I<sup>2</sup>:80%], and the quality of evidence was moderate.

HAMA is a psychological questionnaire used by clinicians to rate the severity of a patient's anxiety. A higher score indicates greater anxiety.

Electro-acupuncture significantly reduced the Self-Rating Anxiety Scale (SAS) score [MD: -3.47 (95% CI, -6.57--0.36), I<sup>2</sup>:88%], and the quality of evidence was moderate.

SAS is a self-reported outcome measure. A higher score indicates greater anxiety.

### [Effectiveness of acupuncture on anxiety disorder: a systematic review and meta-analysis of randomized controlled trials \(2021\) \[10\]](#)

This systematic review provides evidence that acupuncture may be beneficial for individuals with generalised anxiety disorder (GAD). It evaluated 20 randomized clinical trials involving a total of 1,823 participants. A key strength of this review is that all included studies specifically targeted patients with GAD, which increases the reliability of the findings compared to reviews that combine studies on anxiety linked to other conditions (see Commentary). Notably, all trials were conducted in China.

The studies varied in their choice of control groups. Some compared acupuncture to Western medication, while others used comparisons with traditional Chinese treatments. Importantly, the authors conducted a subgroup analysis focusing solely on trials comparing acupuncture with Western medication—likely the most relevant comparison for patients with GAD in the UK.

**Yang et al., the review authors, concluded: “Our findings suggest that acupuncture therapy aimed at reducing anxiety in patients with GAD has certain beneficial effects compared to controls. More high-quality RCTs are needed to fully understand the role of acupuncture in treating various types of anxiety disorders.”**

### Main results

The meta-analysis of anxiety symptoms showed that acupuncture was more effective than the control condition, with a standard mean effect size of  $-0.41$  (95% CI  $-0.50$  to  $-0.31$ ;  $p < 0.001$ )

When compared to western medicine acupuncture had a better effect on anxiety with a SMD of  $-0.44$  (95% CI  $-0.54$  to  $-0.34$ ,  $p < 0.001$ )

Standardised Mean Difference is a commonly used method of measuring the effect size of a therapy/medication. By convention 0.2 is considered small, 0.5 is moderate and 0.8 is large.

### Acupuncture for treatment of anxiety, an overview of systematic reviews (2019) [11]

This study evaluated 10 systematic reviews on the use of acupuncture for anxiety. However, the reviews varied considerably in terms of patient populations and clinical contexts. Some focused on perioperative anxiety, while others examined anxiety in dental patients, individuals with cancer, or those with generalised anxiety disorder. These differences limit the comparability and generalizability of the findings across reviews (see Commentary). Nonetheless, the overview suggests that acupuncture may offer potential benefits for a wide range of individuals experiencing anxiety.

**Li et al., the study authors, concluded: “Although most of the included reviews indicated that the acupuncture group was more effective than the control group in the treatment of anxiety, more importantly, the methodological quality of the included reviews and the overall quality of evidence were low.”**

## Acupuncture and electroacupuncture for anxiety disorders: A systematic review of the clinical research (2018) [12]

This review focused specifically on electro-acupuncture. As with many other systematic reviews in this field, there was considerable variability in the patient populations included in the underlying clinical trials. Some studies investigated situational anxiety—for example, anxiety related to dental procedures—while others focused on anxiety in post-stroke patients. Such heterogeneity in study populations limits the comparability and generalizability of the review’s findings (see Commentary).

**The authors, Amorin et al., concluded: “Overall, there is good scientific evidence encouraging acupuncture therapy to treat anxiety disorders, as it yields effective outcomes with fewer side effects than conventional treatments. However, further research in this area is needed.”**

## Effects from acupuncture in treating anxiety: integrative review (2016) [13]

This was an integrative review, meaning the authors examined a range of evidence types, including cohort studies and non-randomised clinical trials. This approach differs from traditional systematic reviews, which typically focus exclusively on randomised controlled trials.

Goyatá et al., the authors, concluded: “Acupuncture seems to be a promising treatment for anxiety; however, there is a need for improving the methodological quality of research in this field.”

# Auricular acupuncture

## Is auriculotherapy effective and safe for the treatment of anxiety disorders? – A systematic review and meta-analysis [14]

This review examined 13 studies on auricular (ear) acupuncture for situational anxiety: pre-operative or exam anxiety.

Vieira et al, the authors, concluded: AA may be effective as a complementary treatment for situational anxiety.

### Main results

Auricular acupuncture reduced anxiety compared to placebo, standardised mean difference (SMD): -0.44 95% of Confidence Intervals (CI) [-0.60, -0.28]

Auricular acupuncture reduced anxiety compared to wait list SMD (-0.55; 95% CI [-0.70, -0.41]).

Standardised Mean Difference is a commonly use method of measuring the effect size of a therapy/medication. By convention 0.2 is considered small, 0.5 is moderate and 0.8 is large

## **Auricular stimulation for preoperative anxiety – A systematic review and meta-analysis of randomised controlled clinical trials [15]**

This review examined 15 studies with 1603 patients. The review was focused on auricular (ear) acupuncture for pre-operative.

**Usichenko et al, the authors, concluded: auricular acupuncture may be useful in treatment of preoperative anxiety. Due to heterogenous certainty in effect estimates, further research is needed to clarify the actual efficacy of AS for preoperative anxiety.**

### **Main result**

Auricular acupuncture reduced anxiety compared compared to the sham control SMD - 0.72, 95% confidence interval (CI) -1.09 to -0.36,  $p < 0.0001$

Auricular acupuncture reduced anxiety compared compared to no intervention SMD - 1.01, 95% CI -1.58 to 0.45,  $p = 0.0004$

There was no difference between auricular acupuncture and benzodiazepines.

## **Commentary: acupuncture for anxiety**

[An analysis of the research into acupuncture for anxiety.](#)

Systematic reviews compile and assess the results of available clinical trials. When the design and methodology of these trials are sufficiently similar, their results can be statistically combined in a meta-analysis. However, in the context of acupuncture for anxiety, clinical trials often examine anxiety in combination with another health condition—such as anxiety with pain, insomnia, post-stroke recovery, addiction, postpartum depression, or during IVF treatment—rather than studying anxiety in isolation. Additionally, some studies focus on situational anxiety, such as that experienced before dental procedures, sporting events, or academic examinations.

This diversity in clinical focus presents a scientific challenge. Acupuncture may be more effective for individuals experiencing anxiety alongside chronic pain than for those with anxiety related to addiction, or vice versa. As a result, combining such heterogeneous studies in a single meta-analysis may not provide an accurate estimate of the potential benefit. If ten clinical trials are available, it is methodologically preferable for all ten to evaluate anxiety in the same context, rather than combined results of unrelated conditions such as anxiety and insomnia, anxiety and IVF, situational anxiety, anxiety in post-stroke patients, anxiety and addiction.

In general, larger clinical trials with more participants tend to provide stronger evidence. Likewise, combining results from multiple similar trials in a meta-analysis can increase the strength of the evidence. Conversely, when the patient populations and associated conditions differ significantly, the strength of the conclusions is weakened. When looking

at the evidence base, such as systematic reviews, it is important to remember that terms like “weak evidence” or “no evidence,” this does not imply that acupuncture is ineffective or that its benefits are negligible. Rather, such phrases reflect the current limitations in the quality and/or consistency of the evidence, highlighting the need for more rigorous or targeted research.

Randomised clinical controlled trials are usually focused on one sign or symptom rather than looking at a person’s overall health and well-being. The theory that underpins traditional acupuncture seeks to understand the person as a whole. This means that multiple signs and symptoms can be addressed through one treatment or course of treatments. There is no build-up of side effects or additional risks, as can sometimes be seen when multiple medications are prescribed.

Acupuncture is increasingly used to support people with a cancer diagnosis, and oncology is a good example of how acupuncture can address multiple signs and symptoms. American Society of Clinical Oncology (ASCO) recommends acupuncture to help reduce anxiety in those with breast cancer [5]. European Society for Medical Oncology recommend acupuncture to address nausea and vomiting, fatigue and hot flashes in those with breast cancer [6]. The American Society of Clinical Oncology recommends acupuncture to help reduce general cancer related pain, musculoskeletal pain, surgical or procedural pain, and chemo-induced peripheral neuropathy (CIPN) [7]. The systematic reviews on acupuncture for anxiety included clinical trials with participants who had anxiety alongside other conditions. Apart from cancer these trials investigated conditions such as [depression](#), [infertility](#) or [insomnia](#). Please click on the links to see our fact sheets on these conditions.

Auricular acupuncture (ear acupuncture) has been used for decades in the West to help people with anxiety. Some clinical trials have investigated the use of auricular acupuncture for anxiety. This presents a similar challenge to the diversity of patient populations. It may not be appropriate to combine the results of auricular acupuncture with the results of trials that used full body acupuncture. In practice, traditional acupuncturists will often combine body acupuncture with a regular acupuncture for people with anxiety. If auricular acupuncture alone is less effective than body and auricular acupuncture combined, the result of a meta-analysis will underestimate the benefits people will receive in practice.

Auricular acupuncture is often delivered in a group setting, with six people sitting in a circle receiving acupuncture at the same time. Delivering acupuncture in this way can have additional benefits. Sometimes the practitioner will take the group through meditative breathing exercises, often based on qigong, which is also part of Traditional Chinese Medicine. The American Society of Clinical Oncology recommends mindfulness-based interventions [5]. This can potentially enhance the overall benefit and provide participants with skills to help them manage their anxiety in the future. Group settings also provide an opportunity for peer support.

## Mechanisms: acupuncture for anxiety

The potential mechanisms that may explain the effect of acupuncture in reducing anxiety.

In general, 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 well-being.

Research has shown that acupuncture treatment may specifically benefit anxiety disorders and symptoms of anxiety by:

- acting on areas of the brain known to reduce sensitivity to pain and stress, as well as promoting relaxation and deactivating the 'analytical' brain, which is responsible for anxiety and worry [16]  
regulating levels of neurotransmitters (or their modulators) and hormones such as serotonin, noradrenaline, dopamine, GABA, neuropeptide Y and ACTH; hence altering the brain's mood chemistry to help to combat negative affective states [17, 18]
- stimulating production of endogenous opioids that affect the autonomic nervous system [19] Stress activates the sympathetic nervous system, while acupuncture can activate the opposing parasympathetic nervous system, which initiates the relaxation response.
- reversing pathological changes in levels of inflammatory cytokines that are associated with anxiety [19]
- reversing stress-induced changes in behaviour and biochemistry[20]

For more information see [Almeida and Cavalca who postulate:](#)

From a mechanistic point of view, the hypothesis is that the anxiolytic [to reduce anxiety] effect of acupuncture on anxiety may occur due to the regulation of brain regions involved in emotional, cognitive and memory processing, via modulation of memory network (MN), salience network (SN), default mode network (DMN) and limbic-paralimbic-neocortical network (LPNN). In addition, the acupuncture decreases the cortisol production, via modulation of the hypothalamic-pituitary-adrenal (HPA) axis [21].

## Case studies: acupuncture for anxiety

Some examples of services that use acupuncture to help those with anxiety.

### Inner City Gloucester Primary Care Network

In November 2022, Inner City Gloucester Primary Care Network (PCN) introduced a group ear acupuncture service for anxiety. This service was developed by Inner City Gloucester PCN in partnership with the British Acupuncture Council (BAC). This innovative primary-care based acupuncture group therapy service, serves patients with the highest prevalence of mental health needs in Gloucestershire in one of the highest areas of deprivation in the Southwest of England.

Patients are offered a six-week course of ear acupuncture. The acupuncture is delivered in a group environment. During each session, which lasts 45 minutes, patients are taken through a relaxation and breathing techniques. This provides patients with self-help techniques to help them manage anxiety.

This is an incredibly cost-effective and holistic mental health intervention that promotes wellness and provides an alternative patient choice. The service is inclusive, safe and accessible, with little to no barriers for referral. The service has accommodated those with English as a second language, learning disabilities, visual impairments, complex physical needs, and patients from excluded minorities such as the traveller community and migrants.

## Results

Preliminary data indicates that the service is supporting patients to make positive changes in their lives and has the potential for wider variety of additional benefits such as smoking cessation and reliance on medications. The following is based on feedback from more than 150 patients.

**100% of patients highly recommended the services to their family and friends.**

## GAD-7 scores

According to the NHS Generalised Anxiety Disorder metric (GAD-7 scores), we have seen significant improvements in our patient's well-being:

- Average GAD-7 score at course entry: 15.53 (indicating severe anxiety)
- Average GAD-7 score at course completion: 8.09 (indicating mild anxiety)

These results demonstrate an effectiveness in helping individuals manage anxiety, making a positive impact on their mental health and overall quality of life.

## Patient feedback

I am really grateful for the knowledge and support I have received over the last 6 week, this course has been more beneficial than any medication I have been on.

I genuinely didn't think I'd be able to relax in a group setting and although open minded, quite sceptical. It was superb. It quickly became my safe space and I so looked forward to my 45min of me time once a week and always left feeling better than when i went in. It has given me a glimmer of hope, priceless! Thank you 😊

This has been a great experience. My smoking has also decreased. I suffered badly from anxiety, this has been the best thing ever. Totally recommend.

Lovely to meet people from the all walks of life and realise we all have similar problems. Committing to the full 6 weeks let me work through and face some initially scary and uncomfortable issues and prove to myself I can keep going. I recommend this to anyone. I want everyone to know how much this has helped me and I'm truly very grateful, thank you so much.

Wonderful course and excellent course leader. She took personal interest in everyone and it felt like a really safe space. It also felt like you weren't alone anymore and the whole team were there to support you. I definitely felt less anxious and stronger and much better than when I started. Just wish there was more like this. Great course 😊

[Using NADA protocol to support the Grenfell community](#)  
Rachel Peckham FBAC

## References: acupuncture for anxiety

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