



## Scientific Facts on

# Evaluating effectiveness and safety of acupuncture

**Source document:**  
INSERM (2014)

**Summary & Details:**  
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**Context** - Acupuncture is used more and more in parallel with conventional treatments, and INSERM (France) undertook a synthesis of medical literature to evaluate the effectiveness and safety of acupuncture.

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This is a faithful summary of the leading report produced in 2014 by French National Institute of Health and Medical Research (INSERM):  
*"Review of the scientific literature conducted by INSERM - Unit 669 - 2014"*

The full Digest is available at: <https://www.greenfacts.org/en/acupuncture/>

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- Each question is answered in Level 1 with a short summary.
- These answers are developed in more detail in Level 2.
- Level 3 consists of the Source document, the internationally recognised scientific consensus report which is faithfully summarised in Level 2 and further in Level 1.

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## 1. What is the context of this report?

Evaluation of so-called 'non-conventionnal' therapies is generally difficult or even impossible due to a lack of data.

Even if it's not the case for acupuncture, for which thousands of publications and analyses are available, results are however far from consistent.

Since acupuncture is used more and more in parallel with conventional treatments, the Institut National de la Santé et de la Recherche Médicale (INSERM, France) undertook a synthesis of national and international medical litterature (with around 250 sources examined), that was then analysed and reviewed by experts in the evaluation of therapies.

## 2. What is acupuncture?

Acupuncture is a discipline that stems from traditional chinese medicine, consisting or the stimulation of specific points on the body using, among other things, needles, electric currents or light.

Acupuncture is a widely used therapeutic approach.

In France, there are currently training available for people in the medical field.

This training is offered in medical faculties as an interuniversity diploma.

Reasons for consulting an acupuncturist are most commonly pain-related, such as joint pains and headaches, and are also often linked to strees, fatigue and sleep disorders.

Even if many neurobiological pathways have been suggested to explain the way that acupuncture could have analgesic clinical effets or could help the action of conventional painkillers, the biological mechanims are not really known.

Non-specific effects are often considered to originate from the psychobiological processes triggered by the overall therapeutic context, the patient-therapist relation, expectations and beliefs of the patient, etc..., a group of elements that are part of the « placebo effect ».

## 3. What are the applications where acupuncture seems to have an effect, according to the report?

Available data suggests that acupuncture could be effective in the treatment of some pain such as headaches, migraines or pain linked to arthritis, even if authors suggest that the measured effects are partially attributable to the placebo effect.

In a less clear way, it seems that acupuncture could relieve back pain, labor pain ou menstrual cramps.

Some forms of acupuncture seem to also be beneficial for patients suffering from nausea and vomitting after chemotherapy or surgery, with minimal side effects.

For the vast majority of other afflictions and conditions that acupuncture claims to address, like smoking cessation or epilepsy, the available data is not sufficient to be able to assess the effectiveness of the treatment.

#### **4. Are there unwanted side effects to acupuncture?**

Reported side-effects are mainly local pain at insertion or needle or at stimulation, severe bruising was reported in a patient under anticoagulant treatment), bleeding or bruising at stimulation points, headaches (usually light, but can be moderate), a feeling of fatigue, nausea or fainting at the moment of treatment by electro-acupuncture.

Other problems stem either from a hygiene problem – if the hands of the practitioner are not clean or if non-sterile needles are used – or from not following the angles and depths of insertion that have been codified for more than two millennia.

#### **5. What are the conclusions and take-away message of this report?**

Globally, the report underlines that the benefits that the analysis or the available literature seems to suggest should be interpreted carefully. Conclusions of different evaluations of available studies vary mainly because of the large variation in published work and because of problems in methodologies and protocols, but also because of clearly different interpretations of the data and because of the risk of bias.

It is thus difficult to compare them and use them in an analysis that would yield very robust conclusions.

It is thus impossible to be certain of the effectiveness of this therapeutic approach, and to determine if acupuncture, no matter what the reason to use it, is more effective than a placebo treatment.

In summary :

- For many chronic pains and to treat nausea and vomiting, acupuncture has an effectiveness that is higher than no treatment.
- For the many other conditions, it is difficult to draw any conclusion.