

## ACUPUNCTURE AN ANCIENT MEDICINE IS MAKING ITS POINT SIDEBAR WHAT THE RESEARCH SHOWS SIDEBAR WHAT TO CHECK FOR MORE INFORMATION

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Sometime this summer, the United States government is expected to acknowledge what the Chinese have known for 5,000 years: **Acupuncture can** be good for what ails you. For months now, the US Food and Drug Administration, not exactly known for rushing to embrace alternative medicine, has been reviewing a mountain of evidence, including more than 500 pages of research studies that show **acupuncture can help** with at least five problems: nausea, pain, asthma, addiction and stroke. The FDA's move -- technically, a reclassification of **acupuncture** needles from high- to medium-risk medical devices -- does not exactly constitute approval. But it paves the way for legal marketing of the needles, which until now have been treated by the feds with a kind of benign neglect. The government's blessing -- a long-overdue recognition that Western medicine may not have all the answers -- is widely seen as a breakthrough in efforts to legitimize **acupuncture**.

Among other things, it means reimbursement for **acupuncture** may be easier from Medicare, Medicaid and private insurers, which currently pay for **acupuncture** spottily.

And it will certainly further fuel **acupuncture's** growth.

America already has 9,000 to 10,000 acupuncturists -- of whom 5,500 are licensed by states -- plus 800 physician-acupuncturists and hundreds of chiropractors trained in **acupuncture**, according to figures from national **acupuncture** organizations.

Americans make 9 to 12 million visits yearly to acupuncturists, use 100 million needles and have 50 schools of **acupuncture**, 19 of them accredited by a national commission recognized by the government, and eight in candidacy status.

Non-physician acupuncturists now have the right to practice legally in 30 states. (In many states, including Massachusetts, licensed physicians do not need special permission to do **acupuncture**, which irks non-physician acupuncturists, who often have more training.)

Oddly enough, though, for most of America's love affair with **acupuncture**, we have proceeded with blissful ignorance of how it works, though this is changing as Western researchers become better able to explain **acupuncture** in their own terms.

For thousands of years, of course, the Chinese have had their own understanding of **acupuncture**, which involves sticking thin needles into 360 or so points that lie along 14 channels, or meridians in the body. It is through these meridians that a form of energy called **Qi** (pronounced "chee") is believed to flow.

The meridians do not seem to correspond to blood, lymphatic or nerve pathways but may lie on the skin or fascial planes -- the spaces between muscles.

According to Chinese belief, when needles are inserted -- and either left in place briefly, heated with a burning herb called "moxa" or hooked to weak electrical currents -- **Qi** is unblocked and re-routed, thus restoring the body's balance of energy.

But in the quarter-century since James Reston of the New York Times piqued Westerners' interest with his first-person account of **acupuncture**, a growing number of Western researchers have been fascinated by **acupuncture**, most legendary among them, Bruce Pomeranz, a University of Toronto physiologist.

Pomeranz was not reachable last week, but his 39 published papers on **acupuncture** and pain, plus others on addiction and nerve regeneration, have been central to one of the leading Western hypotheses: **Acupuncture** works in part by stimulating the body's own painkillers, endorphins.

In his first experiment, in 1974, Pomeranz hooked cats to electrodes, needled them on **acupuncture** points taken from Chinese charts, and found that pain-transmitting nerves did not fire, while nerves for touch remained unaffected.

As Pomeranz was doing his early work, other scientists discovered the brain's own opiates, endorphins, prompting Pomeranz to wonder if **acupuncture** somehow triggered them.

Knowing that the pain-killing effect of endorphins **can** be blocked by a chemical called naloxone, Pomeranz reasoned that one way to see if **acupuncture** worked through endorphins would be to see if it stopped working in animals given naloxone. He soon proved just this in experiments with mice.

Pomeranz went on to prove that if he put needles into "sham," or supposedly false points, endorphins were not released -- and pain was not blocked.

In other ingenious experiments, researchers added to this understanding. They hooked together the circulatory systems of two animals, but used **acupuncture** in only one. When pain stimuli were applied, both showed signs of analgesia, suggesting that something in the blood -- perhaps endorphins -- was at work.

In time, Pomeranz and others showed that **acupuncture** releases not just endorphins but a hormone called ACTH, which stimulates the adrenal glands to release cortisol, a hormone with anti-inflammatory effects. The combination of endorphins and cortisol, researchers now think, may explain why **acupuncture can** reduce pain in inflammatory diseases such as arthritis.

Pomeranz and others also showed that when **acupuncture** needles are attached to high-frequency electrical currents, a different brain chemical -- serotonin -- is released, leading to hopes that **acupuncture** may **help** with depression, which is often associated with deficiencies in serotonin.

Increasingly, however, Western scientists say that endorphins and other neurochemicals may be only part of the picture.

Some hypothesize **acupuncture** may work by inducing changes in blood flow. Others lean toward the Chinese hypothesis that **acupuncture** triggers changes in energy flow.

For decades, in fact, Western scientists have known that **acupuncture** points correspond to areas of decreased electrical resistance on the skin that **can** be detected with an Ohm meter. This was one way French researchers discovered **acupuncture** points on the ear not initially known to the Chinese, notes Andrew Parfitt, a National Institutes of Health neurochemist.

Today, some of those with a foot in Western and Eastern medicine, especially doctors who also do **acupuncture**, like Dr. Glenn S. Rothfeld, director of Spectrum Medical Arts in Arlington, hope to link the Western focus on matter -- endorphins -- with the Eastern one on electromagnetic fields.

"Evidence is growing," he says, "that the body's hormone system is regulated electromagnetically as well as biochemically, and that a metal needle in the right point **can** create this electromagnetic change."

None of which, of course, matters a whit to the already-converted, like Deborah Dumaine, 46, a Lincoln woman who runs Better Communications Writing Workshops, Inc. in Lexington.

Whenever Dumaine feels stressed out, run-down or about to come down with a cold, she goes to an acupuncturist, often Loochie Brown at the Center for **Acupuncture** and Oriental Medicine in Lexington. Dumaine says she invariably leaves feeling like she's had "two weeks' vacation."

The usual explanations of **acupuncture** "sound like mumbo-jumbo to me, but it works, and that's all I care about," she adds. "This energy coming and going, whether you have too much fire or air in your system, or too much heat. . . I go for the results, and the results are there."

Of all the alternative therapies inching their way toward acceptance in America, "**acupuncture** is the most promising," says Dr. Alan I. Trachtenberg, acting director of the Office of Alternative Medicine at the National Institutes of Health.

But just how solid is the research on which this growing acceptance is based? Even enthusiastic proponents, like Stephen Birch, who runs the Japanese **Acupuncture** Center in Watertown, acknowledge that the quality of research varies enormously.

There have, for instance, been 42 review articles on **acupuncture**, including more than 200 randomized controlled trials, and 4 meta-analyses, studies in which data from many trials are pooled for statistical power. But methodologically, many studies are poor, says Dr. David Eisenberg, director of Beth Israel Hospital's new center for alternative medicine research.

Of 70 studies that claim to be "double-blind," for instance, meaning neither patient nor acupuncturist knows which patient is getting real **acupuncture** and which, a dummy procedure in which needles are placed in "sham" points where **acupuncture** is not supposed to have an effect, few truly are, he says.

With such caveats firmly in mind, here is the best Western evidence to date on the efficacy of **acupuncture**:

**Nausea:** The best case for **acupuncture** comes from studies on nausea, for which needles are placed in a point the Chinese call "neiguan" and Westerners, Pericardium 6, three finger-widths up the inside of the arm from the wrist crease, between the two big tendons.

Studies at Queens University in Belfast found **acupuncture** on this point very effective for people undergoing chemotherapy and those with nausea after anesthesia. These studies, in hundreds of people, show piercing neiguan -- but not a sham point at the elbow -- reduces nausea, says National Institutes of Health neurochemist Andrew Parfitt.

Even mere acupressure on the neiguan point may reduce nausea. In one 1986 double-blind study, researchers showed wrist bands that supplied pressure on this point reduced morning sickness in pregnant women, while similar pressure on a sham point did not.

**PAIN:** There have been more than 135 randomized controlled trials on **acupuncture** for pain relief, including chronic pain, musculo-skeletal pain and headaches. A 1989 meta-analysis of 14 such trials suggested **acupuncture** works against pain, but a larger, 1990 meta-analysis of 51 trials came to a more cautious conclusion -- because the best-done studies were contradictory.

Still, the good studies, like a 1987 Kaiser Foundation trial by Dr. Joseph Helms of 43 women with menstrual pain, are encouraging. The women given **acupuncture** had dramatically less pain and used far less pain-killing medicine than those given sham treatment or no **acupuncture** at all.

University of Maryland researchers led by Dr. Brian R. Berman have found similarly encouraging results in a study of 12 people with osteoarthritis of the knee.

**ASTHMA:** Oxford University's Kim A. Jobst reviewed 16 studies in the Journal of Alternative and Complementary Medicine. Initially, he found seven studies showed **acupuncture** worked. But when he reanalyzed the data, he saw sham **acupuncture** yielded similar results, raising the possibility a placebo or some other non-specific effect was at work.

Still, the anecdotal evidence is often compelling. Dr. Michael Smith, a researcher at Lincoln Hospital in the South Bronx, tells of a patient who ballooned up to 300 pounds from steroids taken to control asthma.

"She had terrible rashes, asthma attacks all the time and clearly wasn't going to live much longer," he says. After a year and a half of **acupuncture**, she lost 80 pounds, no longer takes steroids and has thrown away her asthma supplies.

**ADDICTION:** It is hard to do controlled studies of people addicted to alcohol, cocaine and other drugs, says Smith.

One solid study, however, done in 1989 on 80 recidivist alcoholics in Hennepin County, Minn., showed 52 percent of those who got real **acupuncture** stayed for the whole rehab program, compared to 2 percent of those who got sham needling.

Smith did a similar study on 120 crack cocaine addicts in the South Bronx. Both the real and sham groups did badly because there was no social support to supplement the treatments, Smith says, but the group getting real **acupuncture** "did less badly."

Nationwide, **acupuncture** has helped fuel the Drug Court movement, which has been endorsed by US Attorney General Janet Reno. In many states -- but not Massachusetts -- these courts use **acupuncture** plus counselling to rehabilitate drug offenders.

**STROKE:** In studies published last year, Margaret Naeser, a licensed acupuncturist and neurology researcher at Boston University and the Boston Veterans Administration Medical Center obtained CT scans on more than 30 patients

with strokes.

Naeser found that if at least half of a tiny area of the brain's motor pathway remains intact after a stroke, patients with mild to moderate paralysis of the hand, arm or leg improve with 40 **acupuncture** sessions. Sham treatments did not show the same benefit. Naeser is now teaching patients with carpal tunnel syndrome to give themselves **acupuncture** with hand-held lasers.

If you are considering **acupuncture**, specialists suggest that you:

- Insist on disposable needles.
- Check to see that your physician-acupuncturist has at least 200 hours of acupuncture training or is a member of the American Academy of Medical **Acupuncture**, which requires proof of training for membership.
- Check to see that your non-physician acupuncturist has more than two years of training at an accredited program, is licensed or registered in your state or has passed the NCCA (National Commission for the Certification of Acupuncturists) exam, which requires more than 1,000 hours of **acupuncture** training. In Massachusetts, you may call 727-1788 X363, the Board of Registration in Medicine, which oversees licensing of acupuncturists.

To learn more about **acupuncture**, you **can** call:

- The New England School of **Acupuncture** Health Care Services, 617-926-1788.
- American Academy of Medical **Acupuncture**, 1-800-521-2262 .
- The National Alliance of **Acupuncture** and Oriental Medicine, 206-524-3511.
- The American Association of **Acupuncture** and Oriental Medicine, 610-433-2448.
- The Council of Colleges of **Acupuncture** and Oriental Medicine, 301-608-9175.
- The National Accreditation Commission of Schools and Colleges of **Acupuncture** and Oriental Medicine, 301-608-9680.
- The Society for **Acupuncture** Research **can** be reached by writing to P.O. Box 33, New Town Branch, Boston, Ma. 02258.

For a copy of the Holistic Health Directory & Resource Guide, 1994-1995, which lists national practitioners by specialty and region and costs \$5.95, call New Age, 617-926-0200, or 1-800-782-7006.

A listing of acupuncturists **can** also be found in the Yellow Pages.

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