



Cigna Medical Coverage Policy

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Subject **Acupuncture**

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Coverage Policy

Acupuncture is specifically excluded under many benefit plans. Please refer to the applicable benefit plan document to determine benefit availability and the terms, conditions and limitations of coverage. Some plans that provide coverage for acupuncture include a maximum allowable benefit for duration of treatment or number of visits. When the maximum allowable benefit is exhausted, coverage will no longer be provided even if the medical necessity criteria described below are met.

If coverage is available for acupuncture, the following conditions of coverage apply.

Cigna covers acupuncture as medically necessary for any of the following indications:

- nausea and vomiting associated with pregnancy
- nausea and vomiting associated with chemotherapy
- postoperative nausea and vomiting
- postoperative dental pain
- the treatment of pain associated with ANY of the following chronic conditions:
 - migraine or tension headache

- osteoarthritic knee pain
- neck pain
- low back pain

Cigna does not cover acupuncture for any other indication, because it is considered experimental, investigational or unproven.

Cigna does not cover acupuncture point injection for ANY indication because it is considered experimental, investigational or unproven.

General Background

Acupuncture is a form of complementary and alternative medicine that has been widely practiced for many centuries. It involves the stimulation of specific anatomical locations on the skin through the penetration of fine needles, with the goal of relieving pain or treating disease. Stimulation can be accomplished manually (i.e., by a twisting motion of the hand) or through such methods as electrical stimulation (i.e., electroacupuncture), heating, laser, pressure, and herb moxibustion.

The theory of acupuncture is based on the assumption that there are patterns of energy flow (i.e., Qi) through the body that are essential for an individual's health. Proponents of acupuncture contend that illness can be traced to the imbalance of the Qi that runs in meridians or channels within the body. The insertion of needles in specific locations in various combinations and patterns along these meridians is claimed to restore the orderly energy flow, resulting in a return to a healthy state.

Acupuncture has been proposed as a treatment for acute and chronic pain conditions, including surgical analgesia, postoperative, musculoskeletal, neurological, vascular, and craniomandibular pain as well as the pain of malignancy. It has also been investigated as a treatment modality for a wide variety of other conditions, such as asthma, addictive behavior, nausea, vomiting, infertility, allergic rhinitis, depression, and bowel dysfunction, and as a weight-reduction method.

The clinical utility of acupuncture is widely debated. Evaluating the clinical efficacy of acupuncture in the context of clinical trials is challenging primarily because of the difficulty of designing randomized trials with appropriate blinding of both subjects and providers. Many studies lack appropriate controls, adequate study size, randomization and/or consistent outcome measures.

Study controls for comparing real acupuncture (also referred to as verum acupuncture) typically include a placebo, sham acupuncture, standard treatment, or no treatment. Sham acupuncture is the most often used control in studies evaluating the efficacy of acupuncture. However, there is no standardized method for employing sham acupuncture and no consensus on needle placement, making it difficult to generalize findings across studies. The goal of applying sham acupuncture is to refrain from stimulating acupuncture points. In many studies, sham is done at irrelevant acupuncture sites; however, evidence has shown sham acupuncture evokes physiological responses. Because the evidence suggests that sham acupuncture is not truly a physiologically neutral event, its use as a control in clinical trials is debatable. It is difficult to distinguish between the specific effects of treatment versus that of the placebo. It has been reported that the ratio of improvement in sham groups was substantially higher than in truly inert placebo groups (Madsen, et al., 2009; Ezzo, et al., 2000). Although initially believed to have no effect, some researchers contend that needle placement in any position invokes a biological response that may interfere with the interpretation of findings.

A majority of states provide licensure or registration for acupuncture practitioners, although the scope of practice allowed under state requirements varies. The National Institutes of Health (NIH) Consensus Panel and the U.S. Food and Drug Administration (FDA) consider acupuncture safe when performed by qualified practitioners using sterile needles. The FDA requires that sterile, nontoxic needles be used and that they be labeled for single use by qualified practitioners. Acupuncture appears to be a relatively safe treatment with rare serious adverse side effects when performed by qualified practitioners who consistently adhere to the recommendations of the FDA regarding the use of sterile needles.

In addition to adults, acupuncture is being performed to treat a variety of conditions in children. Treatment of children is more complex compared to adults, mainly due to physiological differences and fear of needles. As a result, instead of inserting needles a technique such as applied pressure, electricity or laser may be used (Libonate, et al., 2008) and is better tolerated. The amount of evidence to support safety and efficacy for use in children is limited and primarily focuses on post-operative nausea and vomiting and acute and chronic pain. Similar to adults, much of the data is limited by small sample size, lack of randomization, and mixed clinical outcomes. When used to treat postoperative and chemotherapy induced nausea and vomiting there is sufficient evidence to support safety and efficacy of acupuncture in children (Jindal, et al., 2008; Libonate, et al., 2008). There is limited data supporting efficacy for acupuncture when used to treat headaches in adolescents (Gottschling, et al., 2008; Kemper, et al., 2008 [Task Force on Complementary and Alternative Medicine and the Provisional Section on Complementary, Holistic, and Integrative Medicine, American Academy of Pediatrics]; Kundu, et al., 2007) and clinical outcomes are mixed (Jindal, et al., 2008). Additional applications may include nausea, pain and allergy (Kemper, et al., 2008), however further data from large well-designed clinical studies are needed to support safety and efficacy for these and a variety of other pediatric conditions such as asthma, allergic rhinitis, neurological disorders, gastrointestinal disorders, cancer pain, and addictions (Jindal, et al., 2008).

The published, peer-reviewed scientific literature provides sufficiently strong evidence to indicate that acupuncture is safe and effective in adults for the treatment of postoperative nausea and vomiting, nausea and vomiting associated with pregnancy or chemotherapy, and postoperative dental pain (Smith, et al., 2002; Smith and Crowther, 2002; Knight, et al., 2001; Lao, et al., 1999; Dundee, et al., 1989; National Institute of Health, [NIH], 1997; Lao, et al., 1995). Treatment duration for these conditions is generally short-term as a result of the condition being treated. There is also sufficient data in the peer-reviewed, published scientific literature supporting safety and efficacy for the use of acupuncture as an adjunctive treatment modality for chronic pain conditions including headaches (i.e., migraine, tension), low back pain, neck pain, and osteoarthritic knee pain. Depending on the pain condition being treated, a course of acupuncture may last several weeks. However, there is no consensus in the scientific literature regarding the optimal number of acupuncture treatments to administer or the duration of treatment for any condition. Furthermore, acupuncturists employ a variety of techniques making generalizations difficult.

Headaches

Evidence in the medical literature evaluating the safety and effectiveness of acupuncture as a treatment for chronic headaches consists largely of randomized controlled trials, case reports/series, and systematic reviews. Although the clinical trials have limitations and do not lead to strong, definitive conclusions, they are suggestive of improved clinical outcomes for chronic migraine and tension headaches (Wang, et al., 2012; Sun and Gan, 2008; Endres, et al., 2007; Alecrim-Adrade, et al., 2007; Diener, et al., 2006; Coeytaux, et al., 2005; Vickers, et al., 2004; Malchert, et al., 2003; Allais, et al., 2003; Malchert, et al., 2001). The number of treatment sessions and duration of treatment within these studies vary; the total treatment sessions ranged from one to 16 while the duration of treatment ranged from one single treatment (prevention at onset) to 24 weeks.

Sun and Gan (2008) published a systematic review evaluating the efficacy of acupuncture for treating various types of chronic headache (i.e., migraine, tension type). A total of 31 trials, using various sham designs, involving 3916 subjects were included in their review. Response rates (both early and late) of the acupuncture groups were significantly higher and showed a trend in favor of acupuncture. Furthermore, the authors noted that acupuncture was superior to medication therapy for headache intensity, headache frequency, physical function and response rate.

Data from randomized controlled trials has shown acupuncture to be effective for the treatment of various types of headaches, including chronic migraine, tension-type and daily headaches. Studies have generally compared acupuncture to sham acupuncture as the control group while some compared acupuncture to standard medical management or other forms of treatment such as transcutaneous nerve stimulation (TENS). Endres et al. (2007) reported that episodic or chronic tension-type headache improves after acupuncture treatment, although the authors noted the rationale for the effect is not clearly established. Acupuncture has also been shown to reduce the frequency of migraine headache (Wang, et al., 2011; Alecrim-Adrade, et al., 2007; Diener, et al., 2006; Vickers, et al., 2004). In addition, the study by Vickers, et al. (2004) evaluating acupuncture for chronic migraine or tension headaches, supported the use of less medication per year, fewer visits to general practitioners, and use of fewer sick days per year in the acupuncture group when compared to a control group (i.e., subjects receiving only standard care). Coeytaux and associates (2005) evaluated acupuncture as an adjunctive

treatment for chronic daily headaches (typically arising from migraine or tension) and noted that acupuncture did improve clinical outcomes when used as an adjunct to medical management. Allais et al. (2003) reported acupuncture as the most effective treatment of migraine headaches in comparison to transcutaneous nerve stimulation (TENS) and infrared laser therapy.

In addition, Cochrane reviews have been published supporting acupuncture as having benefit for the treatment of migraine headaches and tension-type headaches (Linde, et al., 2009a, Linde, et al., 2009b; Malchert, et al., 2001). In one review, Malchert et al. (2001) stated that the evidence does support the value of acupuncture for the treatment of migraine headaches, although the quality and amount of evidence were not fully convincing. Linde et al. (2009a) reviewed trials that evaluated whether or not acupuncture was effective in the prophylaxis of migraine headache and concluded, "Collectively, the studies suggest that migraine patients benefit from acupuncture, although the correct placement of needles seems to be less relevant than is usually thought by acupuncturists." In another Cochrane Review published by Linde, et al. (2009b) the authors evaluated acupuncture for treatment of tension-type headache and reviewed 11 trials in total. The authors concluded the available evidence does suggest that acupuncture could be a valuable non-pharmacological tool in patients with frequent episodic or chronic tension-type headaches.

Pain Conditions

Acupuncture has also been investigated for the treatment of pain conditions such as chronic neck and low back pain; although some of the evidence supporting the efficacy of acupuncture for these treatments has been contradictory. Various studies have compared the effectiveness of acupuncture to that of sham acupuncture, placebo, and massage therapy, as well as to the effectiveness of self-care for low back pain and neck pain.

Neck Pain: Chronic neck pain is a common condition with multiple etiologies, and is often treated with acupuncture. Although the evidence evaluating acupuncture as an alternative or adjunctive form of treatment for chronic neck pain is limited, some authors report that acupuncture is beneficial in the treatment of this condition (Blossfeldt, 2004; Irnich et al., 2001) while others claim there is a lack of evidence to support acupuncture as an effective treatment modality (White and Ernst, 1999). Nonetheless, while more robust research may be useful, the available evidence does suggest that acupuncture is a worthy option as an adjunct to other neck pain treatments. In general, the average number of acupuncture treatment sessions varies as well as the duration of treatment across clinical trials, however, the average number of treatment sessions for treating chronic neck pain range from one to two sessions per week provided over a range of three to 12 weeks.

Published evidence evaluating acupuncture for the treatment of neck pain is primarily in the form of systematic reviews and meta analysis (with some overlapping of studies) (Leaver, et al., 2010; Fu, et al., 2009; White and Ernst, 2009; Trinh, et al., 2007[Cochrane], Birch, et al., 2004) randomized controlled trials (Sun, et al., 2010; Vas, et al., 2006; Witt, et al., 2006; White, et al., 2004; Irnich, et al., 2001), and prospective clinical trials (Franca, et al., 2003; Zhu, et al., 2002, David, et al., 1999). The authors of one systematic review concluded that there was no convincing evidence to support the effectiveness of acupuncture for the treatment of chronic neck pain (i.e., ankylosing spondylitis, myofascial, osteoarthritic) after the authors reviewed 14 randomized controlled trials (White and Ernst, 1999). Nonetheless, the results of a Cochrane Review (Trinh, et al., 2007) suggested there was moderate evidence to support acupuncture as a treatment for chronic neck pain (i.e., mechanical neck disorders, myofascial, degenerative) was more effective for pain relief compared to sham acupuncture, decreased pain at short-term follow-up, and was more effective than inactive treatments for relieving pain post-treatment and was maintained at short-term follow-up. More recently in a publication regarding the results of the "Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorder", Hurwitz et al. (2008) reported, "The evidence suggests that manual and supervised exercise interventions, low-level laser therapy, and perhaps acupuncture are more effective than no treatment, sham, or alternative interventions." However, the authors also noted none of the active treatments were clearly superior to any other in either the short- or long-term.

Evidence in the form of randomized controlled trials lends support to the effectiveness of acupuncture as a treatment of chronic neck pain with varying etiology. In a single-blind prospective study Vas et al., (2006) reported acupuncture was more effective compared to a placebo control (TENS placebo). The acupuncture group had a change in mean intensity of uncomplicated neck pain that was 62.2% compared to 20.4% among the control group. Witt and associates (2006) conducted a prospective, multicenter, randomized three-arm study to investigate the effectiveness of acupuncture combined with routine care in patients with chronic neck pain compared to treatment with routine care alone (the Acupuncture in Routine Care [ARC] Study, conducted in

Germany). The authors reported improvement in neck pain and disability at three months follow-up, which was maintained through six months for both the acupuncture and control group. Sun et al. (2010) reported the results of a single-blind randomized trial (n=35) comparing acupuncture to sham acupuncture for treatment of chronic neck myofascial pain. The primary outcome was quality of life scores as measured by SF-36 with secondary outcomes measures of neck range of motion. The results of this trial did not demonstrate a significant difference in range of motion and motion related pain among groups however the authors noted the acupuncture group did have greater improvement in physical functioning and improvement in quality of life.

Back Pain: Evidence in the form of systematic reviews, randomized controlled trials, meta analyses and observational studies evaluate the use of acupuncture for treating low back pain. While the etiology of back pain is not specified, the subjects enrolled in the majority of clinical trials were experiencing chronic low back pain. Few authors have evaluated the efficacy of acupuncture for treatment of acute episodes of back pain (Lee, et al., 2013 Level 1; Vas, et al., 2012; Furlan, et al, 2005, Manheimer, et al., 2005). In general the published evidence is conflicting/contradictory with some authors reporting acupuncture may be beneficial (Cho, et al., 2012; Trigkilidas, 2010; Furlan, et al., 2004; Meng, t al., 2003; Molsberger, et al., 2002; Leibing, et al., 2002; Carlsson, et al., 2001) while others report a benefit is unclear (Cherkin, et al., 2003; Kerr, et al., 2003; van Tulder, et al., 1999; Ernst and White, 1998). Some authors do not define the number of treatment sessions and/or duration of treatment although similar to other pain conditions, treatment sessions in these studies ranged from one to five times per week, (averaging one to two treatments), over a duration of four to 12 weeks.

In May 2009 the National Institute for Health and Clinical Excellence (NICE) published guidelines for back pain which included a course of acupuncture as a treatment option. Trigkilidas (2010) sought to determine if the treatment option was justified based on recent evidence. In 2010 Trigkilidas published results of a systematic review of RCTs evaluating acupuncture for the treatment of chronic low back pain. Out of 15 studies identified, four studies met inclusion criteria and were reviewed. Methodological flaws were noted and included recruitment methods which could lead to bias, small sample population in some studies with high loss to follow-up and difficulty in reproducing the intervention. Based on 'the results of these studies the authors concluded acupuncture can be effective for managing patients with back pain, particularly if they have positive expectations.

Yuan et al. (2008) published a systematic review of RCTs evaluating the effectiveness of acupuncture for nonspecific low back pain (i.e., chronic, subacute, combined). After reviewing 23 trials the authors concluded there was moderate evidence that acupuncture is more effective than no treatment, there was strong evidence that there is no significant difference between acupuncture and sham acupuncture for short-term pain relief and there was strong evidence supporting acupuncture as a useful supplement to other forms of conventional therapy for low back pain. Manheimer and associates (2005) published the results of a meta-analysis that was conducted to assess acupuncture's effectiveness for treating low back pain (acute and chronic). Although the quality and quantity of the trials varied, 33 randomized controlled trials met inclusion criteria for the review. According to the results of the review, acupuncture effectively relieved chronic low back pain compared to no treatment, however, there was no evidence to indicate that acupuncture is more effective than other active therapies.

Some studies suggest acupuncture is superior to no treatment or sham therapy for short-term relief of back pain. Haake et al. (2007) reported the results of a randomized controlled trial (n=1162) evaluating whether acupuncture is more efficacious in reducing chronic low back pain than conventional therapy or sham acupuncture. Both acupuncture groups had improvement in pain intensity or back specific disability without concomitant therapies when compared to the conventional treatment group. Brinkhaus et al. (2006) reported acupuncture was more effective in improving pain than no acupuncture in patients with chronic low back pain, although there were no significant differences between acupuncture and minimal acupuncture. The study group consisted of 298 patients, randomized to treatment with acupuncture, minimal acupuncture, or a waiting list control. Inoue et al. (2006) randomized 31 patients with low back pain to receive either acupuncture or sham acupuncture performed at the most painful point on the lower back of patients. Their results suggested that acupuncture at the most painful point provided immediate relief of low back pain. Hsieh, et al. (2006) compared acupuncture (n= 64) to physical therapy (n=65) in patients with chronic low back pain and concluded that acupuncture was more efficacious in relieving back pain than physical therapy.

In a published observational study of patients with chronic low back pain (n=2564), conducted by Weidenhammer et al. (2007), the study results indicated that after six months follow-up, 45.5% of patients had

clinically significant improvement in functional ability scores, and the mean number of days with pain was decreased by half.

Thomas et al. (2005) conducted a randomized controlled trial evaluating acupuncture as a treatment for chronic low back pain. The authors compared outcomes in two populations: patients who received traditional acupuncture in addition to conventional primary care (n=159) and patients who received usual care only (n=80) for persistent nonspecific low back pain. Traditional acupuncture care was safe and acceptable to patients with non-specific low back pain and both acupuncture and usual care were associated with clinically significant improvement at 12 and 24-month follow-up. Adding acupuncture was significantly more effective in reducing bodily pain than usual care at 24-month follow-up.

Osteoarthritic Knee Pain: Researchers also suggest that acupuncture is an effective complement to standard care for chronic osteoarthritis of the knee. Some of the conclusions are limited by the poor quality of the study design. In a majority of the studies osteoarthritis was confirmed by radiographs. Although clinical trials have yielded inconsistent results for a variety of reasons, there is some evidence supporting the efficacy of acupuncture as an adjunct or alternative treatment for osteoarthritis of the knee (Mavrommatis, et al., 2012; Suarez, et al., 2010; Miller, et al., 2009; Jubb, et al., 2008; Manheimer, et al., 2007; White, et al., 2007; Williamson, et al., 2007; Scharf, et al., 2006; Witt, et al., 2006; Witt, et al., 2005; Berman, et al., 2004; Vas, et al., 2004; Ezzo, et al., 2001). Treatment sessions within these studies ranged from one to two treatment sessions per week, for an average of eight to 12 weeks.

Recently published RCTs support efficacy for the use of acupuncture as a treatment for OA of the knee. Mavrommatis et al. (2012) published the results of a RCT (N=120) evaluating the efficacy of acupuncture as an adjunctive therapy to pharmacological therapy for the treatment of OA of the knee. The study involved three groups of randomized subjects: those who received acupuncture and pharmacological therapy, sham acupuncture with pharmacological therapy, and only pharmacological therapy. The primary efficacy outcome was WOMAC Index score at the end of the eighth week of treatment. The results of the study demonstrated the acupuncture and pharmacological therapy group had statistically significant improvements in primary and secondary outcome measures of function and pain, when compared to the sham acupuncture and pharmacological therapy group or the pharmacological therapy group alone.

Suarez-Almazor et al. (2010) published the results of a RCT involving 455 subjects treated with acupuncture or sham acupuncture compared to a control of waitlist subjects (n=72). All patients had radiological diagnosis of OA. Inclusion criteria were OA of the knee with pain in the preceding two weeks and no prior acupuncture treatment. Measured outcomes included Joint Specific Multidimensional Assessment of Pain (J-MAP) measuring the intensity, frequency and quality of pain, WOMAC Index pain scale, and Satisfaction with Knee Procedure (SKIP). Secondary outcomes included WOMAC function, SF12 physical and mental component scores, and Timed Up and Go Test (TUG) (14). Follow-up was conducted at four weeks, at six weeks and three months following treatment. It was noted 25 subjects withdrew prior to treatment and eight subjects in the waitlist group did not return for assessment. Both groups had significant reductions in J-MAP and WOMAC pain compared to the waiting group, with no statistical differences between the acupuncture and sham acupuncture group. Limitations of the study included the use of sham acupuncture and short-term outcomes.

Miller and colleagues (2009) published the results of a randomized controlled clinical trial (n=55) assessing the efficacy of acupuncture as an adjunct therapy to standard care in a group of elderly patients with osteoarthritis of the knee for at least six months duration. Primary outcome measures were changes in Knee Society Score (KSS) and in KSS function and pain ratings at therapy onset, after eight weeks and at 12 weeks. The authors noted significant improvements in all scores for both groups at eight weeks and 12 weeks compared with baseline. Acupuncture had a longer lasting effect—significant differences between the intervention group and control group in the KSS was not noticeable until after 12 weeks (eight weeks of therapy and one month follow-up).

Evidence in the form of systematic reviews also supports the effectiveness of acupuncture for the treatment of knee pain. Manheimer et al. (2007) published the results of a systematic review and meta-analysis of the effects of acupuncture for treating osteoarthritis of the knee. All of the studies reviewed included participants with osteoarthritic knee pain of five years or more and all but one study required radiograph evidence of the condition. When evaluating efficacy, compared with sham acupuncture, real acupuncture provided clinically irrelevant short-term and long-term (six months after baseline) improvement in pain and function. When

compared to waiting list and usual care groups, the patients reported clinically relevant short-term improvement in pain and function. White et al. (2007) published the results of a systematic review and meta-analysis of evidence from randomized controlled trials on acupuncture's effect in reducing pain and increasing function in patients with chronic knee pain. All subjects had chronic knee pain for at least three months or osteoarthritis of the knee confirmed by radiographs. The authors noted that for pain reduction and improvement of function in the short term, acupuncture was significantly superior compared to sham acupuncture, and remained significantly superior at long-term outcome. Acupuncture was also superior compared to no additional care for both pain and function, although the authors reported that results were weakened by heterogeneity. The authors acknowledged there was some evidence that acupuncture is superior to placebo for chronic knee pain; however, further long-term large-scale studies are needed to provide a more definitive conclusion regarding acupuncture for knee arthritis.

Earlier published randomized controlled trials also demonstrated the efficacy of acupuncture when used to treat osteoarthritic knee pain. Williamson and colleagues (2007) reported the results of a trial evaluating patients who received acupuncture (n=60), physiotherapy (n=60) or standard management (n=61) prior to knee surgery due to osteoarthritic pain. In all subjects pain was present for at least three months. At seven weeks, the acupuncture group had lower knee scores compared to the other groups, although this was not present at 12 weeks. Visual analog scores were lower at 12 weeks for the acupuncture and physiotherapy groups. Scharf et al. (2006) compared acupuncture with sham acupuncture and conservative therapy in patients with chronic osteoarthritic knee pain (greater than six months duration) and noted the acupuncture groups had higher success rates when compared to conservative care. There was no difference between acupuncture groups. Witt and associates (2006) evaluated a group of patients with chronic pain (due to osteoarthritis of the knee and hip) as part of the Acupuncture in Routine Care Study (ARC). The authors compared acupuncture to control subjects who did not receive acupuncture and reported improvement in WOMAC scores, and quality of life improvements which were more pronounced in the acupuncture group compared to the control group, with treatment success maintained through six months. Acupuncture plus routine care was associated with clinical improvement in patients with osteoarthritis of the knee or hip. In 2005 Witt and colleagues investigated the efficacy of acupuncture compared with minimal acupuncture and with no acupuncture in patients with pain and dysfunction resulting from osteoarthritis of the knee. The results of the study indicated that the patients who received acupuncture had less pain and better function after eight weeks than patients who received minimal acupuncture or no acupuncture; significant improvements in WOMAC subscales; and significantly better results for almost all secondary outcome measures than did the other groups (Witt, et al., 2005). The results of earlier published randomized trials have also supported the efficacy of acupuncture as a treatment of osteoarthritic knee pain (Berman, et al., 2004; Vas, et al., 2004; Sandee, et al., 2002; Ezzo, et al., 2001).

Other Indications

The volume of literature reporting on the efficacy of acupuncture for other indications is extensive and includes conditions such as menstrual cramps, tennis elbow, fibromyalgia, myofascial pain, carpal tunnel, temporomandibular joint pain, and correction of breech presentation. However, the overall body of evidence for these indications is generally of poor quality, consisting of numerous uncontrolled studies, small case series, case reports, and anecdotal information. Sample sizes are generally inadequate to identify real differences between treatment and control groups, data on long-term outcomes are lacking, there is no consensus regarding patient selection criteria and well-designed, large-population, randomized, controlled clinical trials are lacking. Several systematic reviews of the literature involving acupuncture have concluded that, while acupuncture may be superior to various controls, there is insufficient evidence to conclude that it is better than placebo for most indications. In addition, technology assessments conducted by the Agency for Healthcare Quality and Research (AHRQ) concluded there is insufficient evidence to support the efficacy of acupuncture for the treatment of fibromyalgia and osteoarthritis (AHRQ, 2003a; AHRQ, 2003b). Acupuncture has not been proven effective in the peer-reviewed published scientific literature for the treatment of any of the following conditions, including but not limited to:

- acute pain
- addictive behaviors, including chemical and tobacco addictions
- allergies
- as a weight reduction modality
- asthma
- attention-deficit/hyperactivity disorder

- autism spectrum disorders
- bowel dysfunction
- bursitis
- carpal tunnel syndrome
- correction of breech presentation
- depression
- dermatitis or psoriasis
- dysmenorrhea
- epicondylitis (tennis elbow)
- fibromyalgia
- hypertension
- in lieu of traditional anesthesia
- infertility
- labor
- myofascial pain syndrome
- neuropathies
- nocturnal enuresis
- pain of malignancy
- plantar fasciitis
- post-stroke rehabilitation
- reflex sympathetic dystrophy
- temporomandibular joint disorders (TMJ)
- tinnitus
- urinary incontinence (all types)

Acupuncture Point Injection Therapy

Acupuncture point injection therapy is a procedure where pharmaceuticals and natural biologic products such as vitamins, herbal extracts and other homeopathics, are injected into the body at acupuncture points to prevent or treat disease. One solution in particular, isotonic saline, when injected theoretically allows activation of the acupuncture point for a longer period of time enhancing the therapeutic effect. There is insufficient evidence in the peer-reviewed published scientific literature to support safety and efficacy at this time, data comparing the effectiveness of different products, methods of stimulation and overall clinical utility is lacking.

Professional Societies/Organizations

Professional societies and organizations have studied and commented on the safety and efficacy of acupuncture for various diseases and conditions. Recommendations from initial reports were based on varying levels of evidence and there was little consensus regarding what conditions acupuncture may be considered effective for (National Institute of Health [NIH], 1997; United Kingdom National Health Service [Vickers, 2001]; Alberta Heritage Foundation for Medical Research [Tait, et al.] 2002; World Health Organization [WHO], 2003).

Consensus statements or formal recommendations regarding acupuncture are lacking in the published literature, however some professional societies have addressed the use of acupuncture in other guidelines. The American College of Physicians (ACP) and American Pain Society developed evidence-based clinical practice guidelines for diagnosing and treating low back pain in the primary care setting. According to the guideline recommendations, acupuncture is considered a moderately effective nonpharmacologic therapy for treating chronic low back pain (Chou, et al., 2007).

The American Academy of Orthopaedic Surgeons (AAOS) published an update to their clinical practice guidelines for the treatment of osteoarthritis of the knee (AAOS, 2013). Within these guidelines the AAOS does not recommend acupuncture for the treatment of osteoarthritis of the knee due to lack of evidence supporting efficacy. The AAOS noted the review consisted of five high quality and five moderate quality studies that compared acupuncture to subjects receiving sham, usual care, or education. The committee concluded a majority of studies were not statistically significant, many were not clinically significant, and that some outcomes were associated with clinical significance but not statistical significance.

Use Outside of the US: Acupuncture is also performed in countries outside the United States. For example, treatment guidelines are available from the United Kingdom for pain and other conditions and Singapore considers only needle acupuncture as an approved service; other acupuncture modalities are not supported.

Summary

Despite the lack of strong scientific evidence, acupuncture is accepted as a form of complementary and alternative medicine for selected conditions, including treatment of postoperative nausea and vomiting, nausea and vomiting associated with pregnancy or chemotherapy, and postoperative dental pain. Treatment for these conditions is generally of short duration. Clinical studies provide some evidence to support the effectiveness of acupuncture for the treatment of chronic headaches, low back and neck pain and osteoarthritis of the knee. Acupuncture may be a viable option as an adjunctive method of treatment for these conditions, when other conventional modalities have failed, and when there is reasonable expectation treatment will result in significant therapeutic improvement over a clearly defined period of time. While there is no consensus regarding the number of treatment sessions or duration of treatment, published scientific evidence suggests acupuncture is effective for pain relief, when performed one to two times weekly for 10 to 12 weeks on average. Acupuncture is considered not medically necessary when treatment is unlikely to result in sustained clinical improvement or when there is no defined endpoint for treatment, such as when provided for preventive, maintenance or supportive treatment. Acupuncture as a treatment for any other condition, including acupuncture point injection therapy, has not been proven effective in the published peer-reviewed scientific literature.

Coding/Billing Information

- Note:** 1) This list of codes may not be all-inclusive.
 2) Deleted codes and codes which are not effective at the time the service is rendered may not be eligible for reimbursement
 3) ICD-10-CM Diagnosis Codes are for informational purposes only and are not effective until 10/01/2014.

Acupuncture

Covered when medically necessary:

CPT [®] * Codes	Description
97810	Acupuncture, one or more needles without electrical stimulation; initial 15 minutes of personal one-on-one contact with the patient
97811	Acupuncture, one or more needles without electrical stimulation; each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s) (List separately in addition to code for primary procedure)
97813	Acupuncture, one or more needles with electrical stimulation; initial 15 minutes of personal one-on-one contact with the patient
97814	Acupuncture, one or more needles with electrical stimulation; each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s) (List separately in addition to code for primary procedure)

ICD-9-CM Diagnosis Codes	Description
307.81	Tension headache
338.18	Other acute postoperative pain
338.28	Other chronic postoperative pain
339.10-339.12	Tension type headache
346.00-346.93	Migraine
353.2	Cervical root lesions, not elsewhere classified
353.4	Lumbosacral root lesions, not elsewhere classified

564.3	Vomiting following gastrointestinal surgery
643.00	Mild hyperemesis gravidarum, unspecified as to episode of care or not applicable
643.03	Mild hyperemesis gravidarum, antepartum condition or complication
643.10	Hyperemesis gravidarum with metabolic disturbance, unspecified as to episode of care
643.13	Hyperemesis gravidarum with metabolic disturbance, antepartum condition or complication
643.20	Late vomiting of pregnancy, unspecified as to episode of care
643.23	Late vomiting of pregnancy, antepartum condition or complication
643.80	Other vomiting complicating pregnancy, unspecified as to episode of care
643.83	Other vomiting complicating pregnancy, antepartum condition or complication
643.90	Unspecified vomiting of pregnancy, unspecified as to episode of care
643.93	Unspecified vomiting of pregnancy, antepartum condition or complication
715.16	Osteoarthritis, localized, primary, lower leg
715.26	Osteoarthritis, localized, secondary, lower leg
715.36	Osteoarthritis, localized, not specified whether primary or secondary, lower leg
715.86	Osteoarthritis involving, or with mention of more than one site, but not specified to generalized, lower leg
715.96	Osteoarthritis, unspecified whether generalized or localized, lower leg
721.0	Cervical spondylosis without myelopathy
721.1	Cervical spondylosis with myelopathy
721.3	Lumbosacral spondylosis without myelopathy
721.42	Lumbar spondylosis with myelopathy
722.0	Displacement of cervical intervertebral disc without myelopathy
722.10	Displacement of lumbar intervertebral disc without myelopathy
722.4	Degeneration of cervical intervertebral disc
722.52	Degeneration of lumbar or lumbosacral intervertebral disc
722.71	Intervertebral disc disorder with myelopathy, cervical region
722.73	Intervertebral disc disorder with myelopathy, lumbar region
722.93	Other and unspecified disc disorder , lumbar region
723.0	Spinal stenosis in cervical region
723.1	Cervicalgia
723.2	Cervicocranial syndrome
723.3	Cervicobrachial syndrome (diffuse)
723.8	Other syndromes affecting cervical region
723.9	Unspecified musculoskeletal disorders and symptoms referable to neck
724.02	Spinal stenosis, lumbar region without neurogenic claudication
724.2	Lumbago
724.3	Sciatica
724.4	Thoracic or lumbosacral neuritis or radiculitis, unspecified
724.5	Backache, unspecified
724.6	Disorders of sacrum
724.70	Unspecified disorder of coccyx
724.9	Ankylosis of spine, NOS
739.1	Nonallopathic lesions, cervical region
739.3	Nonallopathic lesions, lumbar region
739.4	Nonallopathic lesions, sacral region
739.6	Nonallopathic lesions, lower extremities
787.01- 787.03	Nausea and vomiting

ICD-10-CM Diagnosis Codes (Effective	Description
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10/01/2014)	
G43.001- G43.919	Migraine
G44.221- G44.229	Chronic tension-type headache
G89.12	Acute post-thoracotomy pain
G89.18	Other acute post-procedural pain
K91.0	Vomiting following gastrointestinal surgery
M17.0-M17.9	Osteoarthritis of knee
M47.11	Other spondylosis with myelopathy, occipito-atlanto-axial region
M47.12	Other spondylosis with myelopathy, cervical region
M47.13	Other spondylosis with myelopathy, cervicothoracic region
M47.16	Other spondylosis with myelopathy, lumbar region
M47.21	Other spondylosis with radiculopathy, occipito-atlanto-axial region
M47.22	Other spondylosis with radiculopathy, cervical region
M47.23	Other spondylosis with radiculopathy, cervicothoracic region
M47.27	Other spondylosis with radiculopathy, lumbosacral region
M47.28	Other spondylosis with radiculopathy, sacral and sacrococcygeal region
M47.811	Spondylosis without myelopathy or radiculopathy, occipito-atlanto-axial region
M47.812	Spondylosis without myelopathy or radiculopathy, cervical region
M47.813	Spondylosis without myelopathy or radiculopathy, cervicothoracic region
M47.816	Spondylosis without myelopathy or radiculopathy, lumbar region
M47.817	Spondylosis without myelopathy or radiculopathy, lumbosacral region
M47.818	Spondylosis without myelopathy or radiculopathy, sacral and sacrococcygeal region
M47.891	Other spondylosis, occipito-atlanto-axial region
M47.892	Other spondylosis, cervical region
M47.893	Other spondylosis, cervicothoracic region
M47.896	Other spondylosis, lumbar region
M47.897	Other spondylosis, lumbosacral region
M47.898	Other spondylosis, sacral and sacrococcygeal region
M48.01	Spinal stenosis, occipito-atlanto-axial region
M48.02	Spinal stenosis, cervical region
M48.03	Spinal stenosis, cervicothoracic region
M48.06	Spinal stenosis, lumbar region
M48.07	Spinal stenosis, lumbosacral region
M50.00	Cervical disc disorder with myelopathy, unspecified cervical region
M50.01	Cervical disc disorder with myelopathy, high cervical region
M50.02	Cervical disc disorder with myelopathy, mid-cervical region
M50.03	Cervical disc disorder with myelopathy, cervicothoracic region
M50.20	Other cervical disc displacement, unspecified cervical region
M50.21	Other cervical disc displacement, occipito-atlanto-axial region
M50.22	Other cervical disc displacement, mid-cervical region
M50.23	Other cervical disc displacement, cervicothoracic region
M50.30	Other cervical disc degeneration, unspecified cervical region
M50.31	Other cervical disc degeneration, high cervical region
M50.32	Other cervical disc degeneration, mid-cervical region
M50.33	Other cervical disc degeneration, cervicothoracic region
M51.06	Intervertebral disc disorders with myelopathy, lumbar region
M51.16	Intervertebral disc disorders with radiculopathy, lumbar region
M51.17	Intervertebral disc disorders with radiculopathy, lumbosacral region
M51.26	Other intervertebral disc displacement, lumbar region
M51.27	Other intervertebral disc displacement, lumbosacral region
M51.36	Other intervertebral disc degeneration, lumbar region
M51.37	Other intervertebral disc degeneration, lumbosacral region

M51.86	Other intervertebral disc disorders, lumbar region
M51.87	Other intervertebral disc disorders, lumbosacral region
M53.0	Cervicocranial syndrome
M53.1	Cervicobrachial syndrome
M54.2	Cervicalgia
M54.30- M54.32	Sciatica
M54.40- M54.42	Lumbago with sciatica
M54.5	Low back pain
M54.89	Other dorsalgia
M54.9	Dorsalgia, unspecified
M99.01	Segmental and somatic dysfunction of cervical region
M99.03	Segmental and somatic dysfunction of lumbar region
M99.04	Segmental and somatic dysfunction of sacral region
M99.11	Subluxation complex (vertebral) of cervical region
M99.13	Subluxation complex (vertebral) of lumbar region
M99.14	Subluxation complex (vertebral) of sacral region
M99.21	Subluxation stenosis of neural canal of cervical region
M99.23	Subluxation stenosis of neural canal of lumbar region
M99.24	Subluxation stenosis of neural canal of sacral region
M99.31	Osseous stenosis of neural canal of cervical region
M99.33	Osseous stenosis of neural canal of lumbar region
M99.34	Osseous stenosis of neural canal of sacral region
M99.41	Connective tissue stenosis of neural canal of cervical region
M99.43	Connective tissue stenosis of neural canal of lumbar region
M99.44	Connective tissue stenosis of neural canal of sacral region
M99.51	Intervertebral disc stenosis of neural canal of cervical region
M99.53	Intervertebral disc stenosis of neural canal of lumbar region
M99.54	Intervertebral disc stenosis of neural canal of sacral region
M99.61	Osseous and subluxation stenosis of intervertebral foramina of cervical region
M99.63	Osseous and subluxation stenosis of intervertebral foramina of lumbar region
M99.64	Osseous and subluxation stenosis of intervertebral foramina of sacral region
M99.71	Connective tissue and disc stenosis of intervertebral foramina of cervical region
M99.73	Connective tissue and disc stenosis of intervertebral foramina of lumbar region
M99.74	Connective tissue and disc stenosis of intervertebral foramina of sacral region
O21.0-O21.9	Mild hyperemesis gravidarum
R11.0	Nausea
R11.10	Vomiting, unspecified
R11.11	Vomiting without nausea
R11.12	Projectile vomiting
R11.2	Nausea with vomiting, unspecified

Experimental, investigational or unproven and not covered when used to report acupuncture for the following indications:

ICD-9-CM Diagnosis Codes	Description
	All other codes

ICD-10-CM Diagnosis Codes (Effective 10/01/2014)	Description

	All other codes
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Acupuncture Point Injection

Experimental, investigational or unproven and not covered when used to report acupuncture point injection therapy:

CPT®* Codes	Description
20550	Injection(s); single tendon sheath, or ligament, aponeurosis (eg, plantar "fascia")
20551	Injection(s); single tendon origin/insertion
20552	Injection(s); single or multiple trigger point(s), 1 or 2 muscle(s)
20553	Injection(s); single or multiple trigger point(s), 3 or more muscle(s)

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References

1. Agency for Healthcare Research and Quality (AHRQ). Acupuncture for fibromyalgia. Technology assessment. 2003a Jun. Archived. Accessed February 5, 2014. Available at URL address: <http://www.ahrq.gov/clinic/techix.htm#completed>
2. Agency for Healthcare Research and Quality (AHRQ). Acupuncture for osteoarthritis. Technology assessment. 2003b Jun. Archived. Accessed February 5, 2014. Available at URL address: <http://www.ahrq.gov/clinic/techix.htm#completed>
3. Alecrim-Andrade J, Maciel-Júnior JA, Carnè X, Severino Vasconcelos GM, Correa-Filho HR. Acupuncture in Migraine Prevention: A Randomized Sham Controlled Study With 6-months Posttreatment Follow-up. Clin J Pain. 2008 Feb;24(2):98-105.
4. Allais G, DeLorenzo C, Quirico PE, Airola G, Tolardo G, Mana O, Benedetto C. Acupuncture in the prophylactic treatment of migraine without aura: a comparison with flunarizine. Headache. 2002 Oct; 42(9):855-61.
5. Allais G, De Lorenzo C, Quirico PE, Lupi G, Airola G, Mana O, Benedetto C. Non-pharmacological approaches to chronic headaches: transcutaneous electrical nerve stimulation, laser therapy and acupuncture in transformed migraine treatment. Neurol Sci. 2003 May;24 Suppl2:S138-42.
6. American Academy of Orthopaedic Surgeons. Treatment of Osteoarthritis of the knee (non-arthroplasty). Full Guideline. December 6, 2008. Second edition May 2013. Accessed February 5, 2014. Available at URL address: <http://www.aaos.org/Research/guidelines/guide.asp>
7. Berman BM. Clinical applications of acupuncture: an overview of the evidence. J Altern Complement Med. 2001;7Suppl 1:S111-8.
8. Berman BM, Lao L, Langenberg P, Lee WL, Gilpin AMK, Hochberg MC. Effectiveness of acupuncture as adjunctive therapy in osteoarthritis of the knee: a randomized, controlled trial. Ann Intern Med. 2004 Dec;141(2):901-10.
9. Berman BM, Singh BB, Lao L, Langenberg P, Li H, Hadhazy V, et al. A randomized trial of acupuncture as an adjunctive therapy in osteoarthritis of the knee. Rheumatology (Oxford). 1999 Apr;38(4):346-54.
10. Berman BM, Swyers JP, Ezzo J. The evidence for acupuncture as a treatment for rheumatologic conditions. Rheum Dis Clin North Am. 2000 Feb;26(1):103-15, ix-x.

11. Blossfeldt P. Acupuncture for chronic neck pain—a cohort study in an NHS pain clinic. *Acupunct Med*. 2004 Sep;22(3):146-51.
12. Brinkhaus B, Witt CM, Jena S, Linde K, Streng A, Wagenpfeil S, et al. Acupuncture in patients with chronic low back pain: a randomized controlled trial. *Arch Intern Med*. 2006 Feb 27;166(4):450-7.
13. Cao H1, Li X1, Han M1, Liu J2. Acupoint Stimulation for Fibromyalgia: A Systematic Review of Randomized Controlled Trials. *Evid Based Complement Alternat Med*. 2013;2013:362831.
14. Cardini F, Lombardo P, Regalia AL, Regaldo G, Zanini A, Negri MG, Panepuccia L, Todros T. A randomised controlled trial of moxibustion for breech presentation. *BJOG*. 2005 Jun;112(6):743-7.
15. Carlsson CP, Axemo P, Bodin A, Carstensen H, Ehrenroth B, Madegard-Lind I, Navander C. Manual acupuncture reduces hyperemesis gravidarum: a placebo-controlled, randomized, single-blind, cross-over study. *J Pain Symptom Manage*. 2000 Oct;20(4):273-9.
16. Carlsson CP, Sjolund BH. Acupuncture for chronic low back pain: a randomized placebo-controlled study with long-term follow-up. *Clin J Pain*. 2001 Dec;17(4):296-305.
17. Casimiro L, Brousseau L, Milne S, Robinson V, Wells G, Tugwell P. Acupuncture and electroacupuncture for the treatment of RA. *Cochrane Database Systematic Reviews*. In: The Cochrane Library, Issue 2. Copyright © 2005 The Cochrane Collaboration.
18. Centers for Medicare & Medicaid Services (CMS). Acupuncture for fibromyalgia; acupuncture for osteoarthritis. National coverage determination (NCD). (30.3.2). Effective 2004 Apr 16. Accessed February 5, 2014. Available at URL address: http://www.cms.hhs.gov/mcd/index_list.asp?list_type=ncd
19. Cherkin DC, Eisenberg D, Sherman KJ, Barlow W, Kaptchuk TJ, Street J, Deyo RA. Randomized trial comparing traditional Chinese medical acupuncture, therapeutic massage, and self-care education for chronic low back pain. *Arch Intern Med*. 2001 Apr 23;161(8):1081-8.
20. Cherkin DC, Sherman KJ, Deyo RA, Shekelle PG. A review of the evidence for the effectiveness, safety, and cost of acupuncture, massage therapy, and spinal manipulation for back pain. *Ann Intern Med*. 2003 Jun 3;138(11):898-906.
21. Cheuk DK, Wong V, Chen WX. Acupuncture for autism spectrum disorders (ASD). *Cochrane Database Syst Rev*. 2011 Sep 7;9:CD007849.
22. Cho YJ, Song YK, Cha YY, Shin BC, Shin IH, Park HJ, et al. Acupuncture for Chronic Low Back Pain: A Multicenter, Randomized, Patient-Assessor Blind, Sham-Controlled Clinical Trial. *Spine (Phila Pa 1976)*. 2012 Sep 28.
23. Chou R, Qaseem A, Snow V, Casey D, Cross JT Jr, Shekelle P, Owens DK; Clinical Efficacy Assessment Subcommittee of the American College of Physicians; American College of Physicians; American Pain Society Low Back Pain Guidelines Panel. Diagnosis and treatment of low back pain: A joint clinical practice guideline from the American College of Physicians and the American Pain Society. October 2, 2007. Accessed February 5, 2014. Available at URL address: http://www.acponline.org/clinical_information/guidelines/
24. Coeytaux RR, Kaufman JS, Kaptchuk TJ, Chen W, Miller WC, Callahan LF, Mann JD. A randomized, controlled trial of acupuncture for chronic daily headache. *Headache*. 2005 Oct;45(9):1113-23.
25. Council of Acupuncture and Oriental Medicine Associates (CAOMA), Foundation for Acupuncture Research. Acupuncture and electroacupuncture. Evidence-based treatment guidelines. Calistoga (CA): Council of Acupuncture and Oriental Medicine Associates (CAOMA); 2004 Dec.

26. Coyle ME, Smith CA, Peat B. Cephalic version by moxibustion for breech presentation. The Cochrane Database of Systematic Reviews 2007. In: The Cochrane Library Issue 1. Copyright © 2007The Cochrane Collaboration.
27. David J, Townsend S, Sathanathan S, Kriss S, Doré CJ. The effect of acupuncture on patients with rheumatoid arthritis: a randomized, placebo-controlled cross-over study. *Rheumatology (Oxford)*. 1999 Sep;38(9):864-9.
28. Diener HC, Kronfeld K, Boewing G, Lungenhausen M, Maier C, Molsberger A, Tegenthoff M, Trampisch HJ, Zenz M, Meinert R; GERAC Migraine Study Group. Efficacy of acupuncture for the prophylaxis of migraine: a multicentre randomised controlled clinical trial. *Lancet Neurol*. 2006 Apr;5(4):310-6.
29. Endres HG, Böwing G, Diener HC, Lange S, Maier C, Molsberger A, Zenz M, Vickers AJ, Tegenthoff M. Acupuncture for tension-type headache: a multicentre, sham-controlled, patient-and observer-blinded, randomised trial. *J Headache Pain*. 2007 Oct;8(5):306-14.
30. Ernst E, Lee MS, Choi TY. Acupuncture: does it alleviate pain and are there serious risks? A review of reviews. *Pain*. 2011 Apr;152(4):755-64.
31. Ernst E, Lee MS, Choi TY. Acupuncture for depression?: A systematic review of systematic reviews. *Eval Health Prof*. 2011 Dec;34(4):403-12. Epub 2010 Dec 7.
32. Ernst E, Lee MS, Choi TY. Acupuncture in obstetrics and gynecology: an overview of systematic reviews. *Am J Chin Med*. 2011;39(3):423-31.
33. Ernst E, White AR. Acupuncture as a treatment for temporomandibular joint dysfunction: a systematic review of randomized trials. *Arch Otolaryngol Head Neck Surg*. 1999 Mar;125(3):269-72.
34. Ernst E, White AR. Acupuncture for back pain: a meta-analysis of randomized controlled trials. *Arch Intern Med*. 1998 Nov 9;158(20):2235-41.
35. Ezzo J, Berman B, Hadhazy VA, Jadad AR, Lao L, Singh BB. Is acupuncture effective for the treatment of chronic pain? A systematic review. *Pain*. 2000 Jun;86(3):217-25.
36. Ezzo J, Hadhazy V, Birch S, Lao L, Kaplan G, Hochberg M, Berman B. Acupuncture for osteoarthritis of the knee: A systematic review. *Arthritis Rheum*. 2001 Apr;44(4):819-25.
37. Ezzo JM, Richardson MA, Vickers A, Allen C, Dibble SL, Issell BF, Lao L, Pearl M, Ramirez G, Roscoe JA, Shen J, Shivnan JC, Streitberger K, Treish I, Zhang G. Acupuncture-point stimulation for chemotherapy-induced nausea or vomiting. *Cochrane Database of Systematic Reviews* 2006, Issue 2. Copyright © 2007The Cochrane Collaboration.
38. França DL, Senna-Fernandes V, Cortez CM, Jackson MN, Bernardo-Filho M, Guimarães MA. Tension neck syndrome treated by acupuncture combined with physiotherapy: A comparative clinical trial (pilot study). *Complement Ther Med*. 2008 Oct;16(5):268-77.
39. Furlan AD, van Tulder MW, Cherkin DC, Tsukayama H, Lao L, Koes BW, Berman BM. Acupuncture and dry-needling for low back pain. *Cochrane Database Systematic Reviews*. In: The Cochrane Library, 2005 Issue 2. Copyright © 2007 The Cochrane Collaboration.
40. Gottschling S, Meyer S, Gribova I, Distler L, Berrang J, Gortner L, Graf N, Shamdeen MG. Laser acupuncture in children with headache: a double-blind, randomized, bicenter, placebo-controlled trial. *Pain*. 2008 Jul 15;137(2):405-12.
41. Granato A, Chiodo Grandi F, Stokelj D, Musho S, Pizzolato G. Acupuncture in tension-type headache. *Neuroepidemiology*. 2010 Aug;35(2):160-2. Epub 2010 Jun 23.

42. Green S, Buchbinder R, Hetrick S. Acupuncture for shoulder pain. *Cochrane Database Systematic Reviews*. In: The Cochrane Library, 2005 Issue 2. Copyright © 2005 The Cochrane Collaboration.
43. Green S, Buchbinder R, Barnsley L, Hall S, White M, Smidt N, Assendelft W. Acupuncture for lateral elbow pain. *Cochrane Database Systematic Reviews*. In: The Cochrane Library, 2005 Issue 4. Copyright © 2007 The Cochrane Collaboration.
44. Haake M, Müller HH, Schade-Brittinger C, Basler HD, Schäfer H, Maier C, Endres HG, Trampisch HJ, Molsberger A. German Acupuncture Trials (GERAC) for chronic low back pain: randomized, multicenter, blinded, parallel-group trial with 3 groups. *Arch Intern Med*. 2007 Sep 24;167(17):1892-8.
45. He L, Zhou D, Wu B, Li N, Zhou MK. Acupuncture for Bell's palsy. *The Cochrane Database of Systematic Reviews* 2004, Issue 1. Copyright © 2004 The Cochrane Collaboration.
46. Hochberg MC, Altman RD, April KT, Benkhalti M, Guyatt G, McGowan J, Towheed T, Welch V, Wells G, Tugwell P. American College of Rheumatology 2012 recommendations for the use of nonpharmacologic and pharmacologic therapies in osteoarthritis of the hand, hip, and knee. *Arthritis Care Res (Hoboken)* 2012 Apr;64(4):465-74.
47. Hopton A, MacPherson H. Acupuncture for chronic pain: is acupuncture more than an effective placebo? A systematic review of pooled data from meta-analyses. *Pain Pract*. 2010 Mar-Apr;10(2):94-102.
48. Hsieh LL, Kuo CH, Lee LH, Yen AM, Chien KL, Chen TH. Treatment of low back pain by acupressure and physical therapy: randomised controlled trial. *BMJ*. 2006 Mar 25;332(7543):696-700. Epub 2006 Feb 17.
49. Hurwitz EL, Carragee EJ, van der Velde G, Carroll LJ, Nordin M, Guzman J, Peloso PM, Holm LW, Côté P, Hogg-Johnson S, Cassidy JD, Haldeman S; Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders. Treatment of neck pain: noninvasive interventions: results of the Bone and Joint Decade 2000-2010 Task Force on Neck Pain and Its Associated Disorders. *Spine*. 2008 Feb 15;33(4 Suppl):S123-52.
50. Hutchinson AJ, Ball S, Andrews JC, Jones GG. The effectiveness of acupuncture in treating chronic non-specific low back pain: a systematic review of the literature. *J Orthop Surg Res*. 2012 Oct 30;7:36. doi: 10.1186/1749-799X-7-36.
51. Inoue M, Kitakoji H, Ishizaki N, Tawa M, Yano T, Katsumi Y, Kawakita K. Relief of low back pain immediately after acupuncture treatment—a randomised, placebo controlled trial. *Acupunct Med*. 2006 Sep;24(3):103-8.
52. Irnich D, Behrens N, Molzen H, König A, Gleditsch J, Krauss M, et al. Randomised trial of acupuncture compared with conventional massage and “sham” laser acupuncture for treatment of chronic neck pain. *BMJ*. 2001 Jun;322(7302):1574-8.
53. Irnich D, Behrens N, Gleditsch JM, Stor W, Schreiber MA, Schops P, et al. Immediate effects of dry needling and acupuncture at distant points in chronic neck pain: results of a randomized, double-blind, sham-controlled crossover trial. *Pain*. 2002 Sep;99(1-2):83-9.
54. Jamtvedt G, Dahm KT, Christie A, Moe RH, Haavardsholm E, Holm I, Hagen KB. Physical therapy interventions for patients with osteoarthritis of the knee: an overview of systematic reviews. *Phys Ther*. 2008 Jan;88(1):123-36.
55. Jevsevar DS, Brown GA, Jones DL, Matzkin EG, Manner PA, Mooar P, Schousboe JT, Stovitz S, Sanders JO, Bozic KJ, Goldberg MJ, Martin WR 3rd, Cummins DS, Donnelly P, Woznica A, Gross L; American Academy of Orthopaedic Surgeons. The American Academy of Orthopaedic Surgeons evidence-based guideline on: treatment of osteoarthritis of the knee, 2nd edition. *J Bone Joint Surg Am*. 2013 Oct 16;95(20):1885-6.

56. Ji J, Lu Y, Liu H, Feng H, Zhang F, Wu L, Cui Y, Wu H. Acupuncture and moxibustion for inflammatory bowel diseases: a systematic review and meta-analysis of randomized controlled trials. *Evid Based Complement Alternat Med.* 2013;2013:158352.
57. Jindal V, Ge A, Mansky PJ. Safety and efficacy of acupuncture in children: a review of the evidence. *J Pediatr Hematol Oncol.* 2008 Jun;30(6):431-42.
58. Jubb RW, Tukmachi ES, Jones PW, Dempsey E, Waterhouse L, Brailsford S. A blinded randomised trial of acupuncture (manual and electroacupuncture) compared with a non-penetrating sham for the symptoms of osteoarthritis of the knee. *Acupunct Med.* 2008 Jun;26(2):69-78.
59. Jung A, Shin BC, Lee MS, Sim H, Ernst E. Acupuncture for treating temporomandibular joint disorders: a systematic review and meta-analysis of randomized, sham-controlled trials. *J Dent.* 2011 May;39(5):341-50. Epub 2011 Feb 25.
60. Kemper KJ, Vohra S, Walls R; Task Force on Complementary and Alternative Medicine; Provisional Section on Complementary, Holistic, and Integrative Medicine. American Academy of Pediatrics. The use of complementary and alternative medicine in pediatrics. *Pediatrics.* 2008 Dec;122(6):1374-86.
61. Kerr DP, Walsh DM, Baxter D. Acupuncture in the management of chronic low back pain: a blinded randomized controlled trial. *Clin J Pain.* 2003 Nov-Dec;19(6):364-70.
62. Knight B, Mudge C, Openshaw S, White A, Hart A. Effect of acupuncture on nausea of pregnancy: a randomized, controlled trial. *Obstet Gynecol.* 2001 Feb;97(2):184-8.
63. Kundu A, Berman B. Acupuncture for pediatric pain and symptom management. *Pediatr Clin North Am.* 2007 Dec;54(6):885-9; x.
64. Kwon YD, Pittler MH, Ernst E. Acupuncture for peripheral joint osteoarthritis: a systematic review and meta-analysis. *Rheumatology (Oxford).* 2006 Nov;45(11):1331-7. Epub 2006 Aug 27.
65. Lao L, Bergman S, Hamilton GR, Langenberg P, Berman B. Evaluation of acupuncture for pain control after oral surgery: a placebo-controlled trial. *Arch Otolaryngol Head Neck Surg.* 1999 May;125(5):567-72.
66. Lao L, Bergman S, Langenberg P, Wong RH, Berman B. Efficacy of Chinese acupuncture on postoperative oral surgery pain. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 1995 Apr;79(4):423-8.
67. Lee JH, Choi TY, Lee MS, Lee H, Shin BC, Lee H. Acupuncture for acute low back pain: a systematic review. *Clin J Pain.* 2013 Feb;29(2):172-85. doi: 10.1097/AJP.0b013e31824909f9.
68. Leibing E, Leonhardt U, Koster G, Goerlitz A, Rosenfeldt JA, Hilgers R, Ramadori G. Acupuncture treatment of chronic low-back pain: a randomized, blinded, placebo-controlled trial with 9-month follow-up. *Pain.* 2002 Mar;96(1-2):189-96.
69. Liang Z, Zhu X, Yang X, Fu W, Lu A. Assessment of a traditional acupuncture therapy for chronic neck pain: a pilot randomised controlled study. *Complement Ther Med.* 2011 Jan;19 Suppl 1:S26-32.
70. Libonate J, Evans S, Tsao JC. Efficacy of acupuncture for health conditions in children: a review. *ScientificWorldJournal.* 2008 Jul 13;8:670-82.
71. Linde K, Allais G, Brinkhaus B, Manheimer E, Vickers A, White AR. Acupuncture for tension-type headache. *The Cochrane Database of Systematic Reviews* 2009 Issue 1, Copyright © 2009 The Cochrane Collaboration (a)

72. Linde K, Allais G, Brinkhaus B, Manheimer E, Vickers A, White AR. Acupuncture for migraine prophylaxis. The Cochrane Database of Systematic Reviews 2009 Issue 1, Copyright © 2009 The Cochrane Collaboration (b).
73. Linde K, Jobst K, Panton J. Acupuncture for chronic asthma. Cochrane Database Systematic Reviews. In: The Cochrane Library, 2005 Issue 2. Copyright © 2005 The Cochrane Collaboration.
74. Madsen MV, Gøtzsche PC, Hróbjartsson A. Acupuncture treatment for pain: systematic review of randomised clinical trials with acupuncture, placebo acupuncture, and no acupuncture groups. *BMJ*. 2009 Jan 27;338:a3115. doi: 10.1136/bmj.a3115.
75. Manheimer E, Linde K, Lao L, Bouter LM, Berman BM. Meta-analysis: acupuncture for osteoarthritis of the knee. *Ann Intern Med*. 2007 Jun 19;146(12):868-77.
76. Manheimer E, White A, Berman B, Forys K, Ernst E. Meta-analysis: acupuncture for low back pain. *Ann Intern Med*. 2005 Apr 19;142(8):651-63.
77. Mavrommatis CI, Argyra E, Vadalouka A, Vasilakos DG. Acupuncture as an adjunctive therapy to pharmacological treatment in patients with chronic pain due to osteoarthritis of the knee: a 3-armed, randomized, placebo-controlled trial. *Pain*. 2012 Aug;153(8):1720-6. doi: 10.1016/j.pain.2012.05.005
78. McCarney RW, Brinkhaus B, Lasserson TJ, Linde K. Acupuncture for chronic asthma. Cochrane Database Syst Rev. In: The Cochrane Library, Issue 4. Copyright © 2007 The Cochrane Collaboration.
79. McNeely ML, Armijo Olivo S, Magee DJ. A systematic review of the effectiveness of physical therapy interventions for temporomandibular disorders. *Phys Ther*. 2006 May;86(5):710-25.
80. Melchart D, Linde K, Fischer P, Berman B, White A, Vickers A, Allais G. Acupuncture for idiopathic headache. Cochrane Database Systematic Reviews. In: The Cochrane Library, 2001 Issue 2. Copyright © 2009 The Cochrane Collaboration. Updated April 15, 2008.
81. Melchart D, Linde K, Fischer P, White A, Allais G, Vickers A, Berman B. Acupuncture for recurrent headaches: a systematic review of randomized controlled trials. *Cephalalgia*. 1999 Nov;19(9):779-86; discussion 765.
82. Melchart D, Thormaehlen J, Hager S, Liao J, Linde K, Weidenhammer W. Acupuncture versus placebo versus sumatriptan for early treatment of migraine attacks: a randomized controlled trial. *J Intern Med*. 2003 Feb;253(2):181-8.
83. Meng CF, Wang D, Ngeow J, Lao L, Peterson M, Paget S. Acupuncture for chronic low back pain in older patients: a randomized, controlled trial. *Rheumatology (Oxford)*. 2003 Dec;42(12):1508-17. Epub 2003 Jul 30.
84. Mayhew E, Ernst E. Acupuncture for fibromyalgia--a systematic review of randomized clinical trials. *Rheumatology (Oxford)*. 2007 May;46(5):801-4. Epub 2006 Dec 19.
85. Miller E, Maimon Y, Rosenblatt Y, Mendler A, Hasner A, Barad A, Amir H, Dekel S, Lev-Ari S. Delayed Effect of Acupuncture Treatment in OA of the Knee: A Blinded, Randomized, Controlled Trial. *Evid Based Complement Alternat Med*. 2009 Jan 5.
86. Molsberger AF, Mau J, Palwelec DB, Winkler J. Does acupuncture improve the orthopedic management of chronic low back pain: a randomized, blinded, controlled trial with 3 months follow up. *Pain*. 2002 Oct;99(3):579-87.
87. National Institutes of Health (NIH). Acupuncture. Consensus statement online. 1997 Nov 3-5;15(5):1-34. Accessed February 5, 2014. Available at URL address: <http://consensus.nih.gov/1997/1997Acupuncture107html.htm>

88. National Institutes of Health (NIH). National Center for Complementary and Alternative Medicine (NCCAM). Acupuncture. NCCAM Publication No. D003. Revised Dec, 2004. Accessed February 7, 2013. Available at URL address: <http://nccam.nih.gov/health/acupuncture/>
89. National Institute of Health and Clinical Excellence. Acupuncture Evidence. May 22, 2011. Accessed February 3, 2014. Available at URL address: <http://www.nhs.uk/Conditions/Acupuncture/Pages/Evidence.aspx>
90. National Institute of Health and Clinical Excellence. Low back pain: early management of persistent and non-specific low back pain. May 2009. Accessed February 3, 2014. Available at URL address: <http://www.nice.org.uk/nicemedia/live/11887/44334/44334.pdf>
91. Neri I, Airola G, Contu G, Allais G, Facchinetti F, Benedetto C. Acupuncture plus moxibustion to resolve breech presentation: a randomized controlled study. *J Matern Fetal Neonatal Med.* 2004 Apr;15(4):247-52.
92. Paley CA, Johnson MI, Tashani OA, Bagnall AM. Acupuncture for cancer pain in adults. *Cochrane Database Syst Rev.* 2011 Jan 19;1:CD007753.
93. Passalacqua G, Bousquet PJ, Carlsen KH, Kemp J, Lockey RF, Niggemann B, Pawankar R, Price D, Bousquet J. ARIA update: I--Systematic review of complementary and alternative medicine for rhinitis and asthma. *J Allergy Clin Immunol.* 2006 May;117(5):1054-62.
94. Prady SL, Thomas K, Esmonde L, Crouch S, Macpherson H. The natural history of back pain after a randomised controlled trial of acupuncture vs usual care - long term outcomes. *Acupunct Med.* 2007 Dec;25(4):121-9.
95. Rakel D. Acupuncture for neck pain. In: *Integrative medicine.* 1st ed. Philadelphia, PA: W.B. Saunders Company; 2003. p. 438.
96. Sangdee C, Teekachunhatean S, Sananpanich K, Sugandhavesa N, Chiewchantanakit S, Pojchamarnwiputh S, Jayasvasti S. Electroacupuncture versus diclofenac in symptomatic treatment of osteoarthritis of the knee: a randomized controlled trial. *BMC Complement Altern Med* 2002;2):3.
97. Scharf HP, Mansmann U, Streitberger K, Witte S, Kramer J, Maier C, Trampisch J, Victor N. Acupuncture and knee osteoarthritis: a three-armed randomized trial. *Ann Intern Med.* 2006 Jul 4;145(1):12-20.
98. Selfe TK, Taylor AG. Acupuncture and osteoarthritis of the knee: a review of randomized, controlled trials. *Fam Community Health.* 2008 Jul-Sep;31(3):247-54.
99. Seshia SS, Wang SJ, Abu-Arafeh I, Hershey AD, Guidetti V, Winner P, Wöber-Bingöl C. Chronic daily headache in children and adolescents: a multi-faceted syndrome. *Can J Neurol Sci.* 2010 Nov;37(6):769-78.
100. Smith CA, Hay PPJ. Acupuncture for depression. *The Cochrane Database of Systematic Reviews* 2004, Issue 3. Copyright © 2007 The Cochrane Collaboration.
101. Smith CA, Carmady B. Acupuncture to treat common reproductive health complaints: An overview of the evidence. *Auton Neurosci.* 2010 Oct 28;157(1-2):52-6.
102. Smith CA, Crowther CA. Acupuncture for induction of labour. *Cochrane Database Systematic Reviews.* In: *The Cochrane Library*, 2004 Issue 4. Copyright © 2007 The Cochrane Collaboration.
103. Smith C, Crowther C. The placebo response and effect of time in a trial of acupuncture to treat nausea and vomiting in early pregnancy. *Complement Ther Med.* 2002 Dec;10(4):210-4.

104. Smith C, Crowther C, Beilby J. Acupuncture to treat nausea and vomiting in early pregnancy: a randomized controlled trial. *Birth*. 2002 Mar;29(1):1-9.
105. Smith P, Mosscrop D, Davies S, Al-Ani Z. The efficacy of acupuncture in the treatment of temporomandibular joint myofascial pain: A randomised controlled trial. *J Dent*. 2007 Mar;35(3):259-67. Epub 2006 Nov 13.
106. Soderberg E, Carlsson J, Stener-Victorin E. Chronic tension-type headache treated with acupuncture, physical training and relaxation training. Between-group differences. *Cephalalgia*. 2006 Nov;26(11):1320-9.
107. Standaert CJ, Friedly J, Erwin MW, Lee MJ, Rehtine G, Henrikson NB, Norvell DC. Comparative effectiveness of exercise, acupuncture, and spinal manipulation for low back pain. *Spine (Phila Pa 1976)*. 2011 Oct 1;36(21 Suppl):S120-30.
108. Suarez-Almazor ME, Looney C, Liu Y, et al. A randomized controlled trial of acupuncture for osteoarthritis of the knee: effects of patient-provider communication. *Arthritis Care Res (Hoboken)* 2010;62(9):1229-1236.
109. Sun MY, Hsieh CL, Cheng YY, Hung HC, Li TC, Yen SM, Huang IS. The therapeutic effects of acupuncture on patients with chronic neck myofascial pain syndrome: a single-blind randomized controlled trial. *Am J Chin Med*. 2010;38(5):849-59.
110. Sun Y, Gan TJ. Acupuncture for the management of chronic headache: a systematic review. *Anesth Analg*. 2008 Dec;107(6):2038-47.
111. Taechaarpornkul W, Suvapan D, Theppanom C, Chanthipwaree C, Chirawatkul A. Comparison of the effectiveness of six and two acupuncture point regimens in osteoarthritis of the knee: a randomised trial. *Acupunct Med* 2009;27(1):3-8.
112. Tait PL, Brooks L, Harstall C. Acupuncture: evidence from systemic reviews and meta-analyses. HTA 27: series A.. Health technology assessment. Alberta Heritage Foundation for Medical Research. 2002 Mar. Accessed January 12, 2006. Available at URL address: <http://www.ahfmr.ca/hta/hta-publications/reports/acupuncture.pdf>
113. Thomas KJ, MacPherson H, Ratcliffe J, Thorpe L, Brazier J, Campbell, et al. Longer term clinical and economic benefits of offering acupuncture care to patients with chronic low back pain. *Health Technol Assess*. 2005 Aug;9(32):iii-iv, ix-x, 1-109.
114. Thomas KJ, MacPherson H, Thorpe L, Brazier J, Fitter M, Campbell MJ, Roman M, Walters SJ, Nicholl J. Randomised controlled trial of a short course of traditional acupuncture compared with usual care for persistent non-specific low back pain. *BMJ*. 2006 Sep 23;333(7569):623. Epub 2006 Sep 15.
115. Trigkilidas D. Acupuncture therapy for chronic lower back pain: a systematic review. *Ann R Coll Surg Engl*. 2010 Oct;92(7):595-8.
116. Trinh K, Graham N, Gross A, Goldsmith C, Wang E, Cameron I, Kay T. Acupuncture for neck disorders. *Spine*. 2007 Jan 15;32(2):236-43.
117. U.S. Food and Drug Administration (FDA). Acupuncture needles no longer investigational. Updates. *FDA Consumer*. 1996 Jun;30(5). Accessed January 22, 2008. Available at URL address: http://www.fda.gov/fdac/departs/596_upd.html
118. van Tulder MW, Cherkin DC, Berman B, Lao L, Koes BW. The effectiveness of acupuncture in the management of acute and chronic low back pain. A systematic review within the framework of the Cochrane Collaboration Back Review Group. *Spine*. 1999 Jun 1;24(11):1113-23.

119. Vas J, Aranda JM, Modesto M, Benítez-Parejo N, Herrera A, Martínez-Barquín DM, et al. Acupuncture in patients with acute low back pain: a multicentre randomised controlled clinical trial. *Pain*. 2012 Sep;153(9):1883-9. doi: 10.1016/j.pain.2012.05.033.
120. Vas J, Mendez C, Perea-Milla E, Vega E, Panadero MD, Leon JM, et al. Acupuncture as a complementary therapy to the pharmacological treatment of osteoarthritis of the knee: randomised controlled trial. *BMJ*. 2004 Nov;329(7476):1216. Epub 2004 Oct 19.
121. Vas J, Perea-Milla E, Méndez C, Sánchez Navarro C, León Rubio JM, Brioso M García Obrero I. Efficacy and safety of acupuncture for chronic uncomplicated neck pain: a randomised controlled study. *Pain*. 2006 Dec 15;126(1-3):245-55. Epub 2006 Aug 23.
122. Vickers A. United Kingdom National Health Service (NHS) Centre for Reviews and Dissemination. Acupuncture. *Effective Health Bulletins*. 2001 Nov;7(2):1-12. Accessed February 5, 2014. Available at URL address: http://www.york.ac.uk/inst/crd/ehcb_em.htm
123. Vickers AJ, Cronin AM, Maschino AC, Lewith G, MacPherson H, Foster NE, et al. Acupuncture for chronic pain: individual patient data meta-analysis. *Arch Intern Med*. 2012 Oct 22;172(19):1444-53. doi: 10.1001/archinternmed.2012.3654.
124. Vickers AJ, Rees RW, Zollman CE, McCarney R, Smith CM, Ellis N, et al. Acupuncture of chronic headache disorders in primary care: randomised controlled trial and economic analysis. *Health Technol Assess*. 2004 Nov;8(48):1-50.
125. Wang LP, Zhang XZ, Guo J, Liu HL, Zhang Y, Liu CZ, et al. Efficacy of acupuncture for acute migraine attack: a multicenter single blinded, randomized controlled trial. *Pain Med*. 2012 May;13(5):623-30. doi: 10.1111/j.1526-4637.2012.01376.x. Epub 2012 Apr 26.
126. Wang LP, Zhang XZ, Guo J, Liu HL, Zhang Y, Liu CZ, Yi JH, Wang LP, Zhao JP, Li SS. Efficacy of acupuncture for migraine prophylaxis: a single-blinded, double-dummy, randomized controlled trial. *Pain*. 2011 Aug;152(8):1864-71. Epub 2011 May 26.
127. Weiner DK, Rudy TE, Morone N, Glick R, Kwok CK. Efficacy of periosteal stimulation therapy for the treatment of osteoarthritis-associated chronic knee pain: an initial controlled clinical trial. *J Am Geriatr Soc*. 2007 Oct;55(10):1541-7.
128. Weidenhammer W, Linde K, Streng A, Hoppe A, Melchart D. Acupuncture for chronic low back pain in routine care: a multicenter observational study. *Clin J Pain*. 2007 Feb;23(2):128-35.
129. White AR, Ernst E. A systemic review of randomized controlled trials of acupuncture for neck pain. *Rheumatology (Oxford)*. 1999 Feb;38(2):143-7.
130. White A, Foster NE, Cummings M, Barlas P. Acupuncture treatment for chronic knee pain: a systematic review. *Rheumatology (Oxford)*. 2007 Mar;46(3):384-90.
131. White P, Lewith G, Prescott P, Conway J. Acupuncture versus placebo for the treatment of chronic mechanical neck pain: a randomized, controlled trial. *Ann Intern Med*. 2004 Dec;141(12):911-9.
132. White AR, Rampes H, Ernst E. Acupuncture for smoking cessation. *Cochrane Database Systematic Reviews*. In: *The Cochrane Library*, 2005 Issue 4. Copyright © 2007 The Cochrane Collaboration.
133. White AR, Resch KL, Chan JC, Norris CD, Modi SK, Patel JN, Ernst E. Acupuncture for episodic tension-type headache: a multicentre randomized controlled trial. *Cephalalgia*. 2000 Sep;20(7):632-7.
134. Williamson L, Wyatt MR, Yein K, Melton JT. Severe knee osteoarthritis: a randomized controlled trial of acupuncture, physiotherapy (supervised exercise) and standard management for patients awaiting knee replacement. *Rheumatology (Oxford)*. 2007 Sep;46(9):1445-9.

135. Witt CM, Jena S, Brinkhaus B, Liecker B, Wegscheider K, Willich SN. Acupuncture in patients with osteoarthritis of the knee or hip: a randomized, controlled trial with an additional nonrandomized arm. *Arthritis Rheum.* 2006 Nov;54(11):3485-93.
136. Witt CM, Jena S, Brinkhaus B, Liecker B, Wegscheider K, Willich SN. Acupuncture for patients with chronic neck pain. *Pain.* 2006 Nov;125(1-2):98-106.
137. Witt C, Brinkhaus B, Jena S, Linde K, Streng A, Wagenpfeil S, et al. Acupuncture in patients with osteoarthritis of the knee: a randomised trial. *Lancet.* 2005 Jul 9-15;366(9480):136-43.
138. Wonderling D, Vickers AJ, Grieve R, McCarney R. Cost effectiveness analysis of a randomised trial of acupuncture for chronic headache. *BMJ.* 2004 Mar 27;328(7442):747.
139. World Health Organization (WHO). Medicines documentation. Acupuncture: Review and analysis of reports on controlled clinical trials. WHO; 2003. Accessed February 5, 2014. Available at URL address: <http://apps.who.int/bookorders/anglais/detart1.jsp?sesslan=1&codlan=1&codcol=93&codcch=196>
140. Yao E, Gerritz PK, Henricson E, Abresch T, Kim J, Han J, Wang K, Zhao H. Randomized controlled trial comparing acupuncture with placebo acupuncture for the treatment of carpal tunnel syndrome. *PM R.* 2012 May;4(5):367-73. doi: 10.1016/j.pmrj.2012.01.008.
141. Yuan J, Purepong N, Kerr DP, Park J, Bradbury I, McDonough S. Effectiveness of acupuncture for low back pain: a systematic review. *Spine.* 2008 Nov 1;33(23):E887-900.
142. Zhang QH, Yue JH, Liu M, Sun ZR, Sun Q, Han C, Wang D. Moxibustion for the Correction of Nonvertex Presentation: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. *Evid Based Complement Alternat Med.* 2013;2013:241027.
143. Zhang SH, Liu M, Asplund K, Li L. Acupuncture for acute stroke. *The Cochrane Database of Systematic Reviews* 2005, Issue 2. Copyright © 2007 The Cochrane Collaboration.

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