Acupuncture is an effective treatment modality for the alleviation of frozen shoulder. Also termed adhesive capsulitis, frozen shoulder is characterized by shoulder pain and range of motion loss in the rotator cuff region. Arm movements become difficult and frozen shoulder often interferes with a peaceful night’s sleep. In a controlled experiment conducted at the Guangdong 999 Brain Hospital, researchers determined that acupuncture alleviates pain and restores range of motion to the shoulder for patients with frozen shoulder.

Researchers measured the efficacy of electroacupuncture and extracorporeal shock wave therapy (ESWT) as separate and combined treatment modalities. Both protocols achieved significant positive patient outcomes. Optimal results were achieved when both treatment modalities were combined into a comprehensive and integrated regimen of care.

A combination of extracorporeal shock wave therapy (ESWT) and electroacupuncture reduces pain and improves shoulder joint range of motion (ROM) for patients with frozen shoulder (adhesive capsulitis). In a protocolized study from the Guangdong 999 Brain Hospital, researchers determined that integrated application of both extracorporeal shock wave therapy and electroacupuncture produces significant positive treatment outcomes among patients with frozen shoulder. After completion of the combined therapy, both VAS scores and ROM scores improved. VAS (Visual Analogue Scale) is a
measurement instrument that measures pain intensity levels experienced by patients.

Patients were evaluated before and after the treatment course. All patients underwent Visual Analogue Scale (VAS) assessments before and after their treatments. Next, shoulder range of motion (ROM) scores were documented. Three groups (acupuncture only, ESWT only, and combined acupuncture plus ESWT) were compared and all showed significant VAS and ROM improvements. The highest rate of positive patient outcomes was achieved with the combined protocol of acupuncture plus ESWT.

Electroacupuncture involved the application of 2 Hz disperse-dense wave stimulation to local and distal acupoints affecting the shoulder. Extracorporeal shock wave therapy (ESWT) is the use of pressure waves for the treatment of tendinopathies. The shock waves are created by electrohydraulics, piezoelectrics, or electromagnetics. According to Mariotto et al., ESWT creates microtraumas that promote neovascularization and overall healing by stimulating the release of growth factors and molecular agents. A similar high intensity technology is used in lithotripsy to break up kidney stones, gallstones, and bezoars. Liu et al. comment that ESWT relaxes local muscles, resolves spasticity, removes soft tissue adhesions, enhances red blood cell ability to absorb oxygen, and promotes microcirculation for the purposes of relieving pain and improving joint mobility.

The study involved 90 patients at the acupuncture department of Guangdong 999 Brain Hospital. All patients were diagnosed with frozen shoulder between October 2014 and August 2016. They were randomly divided into an extracorporeal shock wave (ESWT) group, an electroacupuncture (EA) group, and an extracorporeal shock wave plus electroacupuncture (ESWT plus EA) group, with 30 patients in each group.

Acupuncture points chosen for the study were based on acupoint prescriptions in the text Acupuncture and Moxibustion Therapeutics (China Press of Traditional Chinese Medicine, 9th edition). The therapeutic treatment principles were to dredge the meridians, improve qi and blood circulation, and soothe the sinews. Acupoints were selected to achieve the therapeutic actions guided by the treatment principles. GB34 was selected to benefit the sinew, tendons, and to stop pain. GB34 (Yanglingquan) has an alternative name (Jin Hui), referring to its importance as the meeting point of the tendons and sinew. LI15 (Jianyu), TB14 (Jianliao), SI9 (Jianzhen), and Jianqian (extra point) were selected as local points because they are indicated for improving local qi and blood circulation to relieve
pain. ST38 (Tiaokou) and BL57 (Chengshan) were chosen to smooth qi circulation in the Taiyang and Yangming channels.

Primary acupuncture points were applied to all patients receiving acupuncture and secondary acupuncture points were selected based upon diagnostic considerations. The primary acupoints were the following:

- LI15 (Jianyu)
- TB14 (Jianliao)
- SI9 (Jianzhen)
- Jianqian (Extra)
- GB34 (Yanglingquan)
- ST38 (Tiaokou)
- BL57 (Chengshan)

Secondary acupoints were as follows. For Hand-Yangming channel stimulation, the following acupoint was added:

- LI3 (Sanjian)

For Hand-Shaoyang stimulation, the following was added:

- TB3 (Zhongzhu)

For Hand-Taiyang stimulation, the following acupoint was added:

- SI3 (Houxi)

For Hand-Taiyin stimulation, the following acupoint was added:

- LU7 (Lieque)

Treatments were initiated with patients in a seated or lateral position. Upon disinfection of the acupoint sites, a 0.25 mm x 40 mm filiform acupuncture needle was inserted into the acupoints to a standard depth. After elicitation of a deqi sensation, the acupuncture needles were connected to an electroacupuncture device. A disperse-dense wave (2 Hz baseline) was applied with an intensity level set to patient tolerance levels or until muscle fasciculations were observable. The needles were retained for 30 minutes, timed from the initiation of electroacupuncture current. For patients receiving acupuncture and ESWT, identical acupuncture procedures were applied with a 20 minute break between the
two therapeutic applications. For all groups, treatments were applied every two days for a total of 10 sessions.

The results demonstrate that acupuncture is an important therapeutic option for patients with frozen shoulder. All therapies (acupuncture, ESWT, and acupuncture plus ESWT) provided significant improvements for patients. The combination of acupuncture plus ESWT provided the greatest contribution to the improvement of positive patient outcomes. As a result, the researchers conclude that acupuncture plus ESWT is an effective protocol for the treatment of frozen shoulder.

Mo et al. (Zhejiang Hospital of Traditional Chinese Medicine) had similar findings. In their investigation, 157 patients with shoulder periarthritis characterized by adhesive capsulitis were randomly divided into 2 groups. Group 1 was comprised of 79 patients that received abdominal style acupuncture. The acupuncture points used on these patients were the following:

- CV12 (Zhongwan)
- KI17 (Shangqu)
- ST24 (Huaroumen)

Group 2 was comprised of 78 patients that received acupuncture at the following local acupoints:

- LI15 (Jianyu)
- TB14 (Jianliao)
- SI9 (Jianzhen)

Acupuncture was applied once per day at a rate of 3 times per week, for a total of 10 treatments. Patients receiving the local acupuncture points had a 71.8% total effective rate. Patients receiving abdominal acupuncture had a 92.4% total effective rate. The aforementioned research finds acupuncture effective for the treatment of frozen shoulder.

The salient findings are acupuncture’s proven ability to stop pain and to restore range of motion for patients with frozen shoulder. This underscores acupuncture’s ability to provide anti-inflammatory, analgesic, and recuperative effective actions. The contemporaneous development and implementation of allopathic medicine and Traditional Chinese Medicine (TCM) presents challenges and advantages. While nosological distinctions between these diagnostic and treatment systems seems antinomic, the integration of both approaches to medicine produces significant positive patient outcomes as demonstrated in the aforementioned research. The
The challenge ahead is to protocolize allopathic and TCM therapies into integrated and accessible patient care that is made widely available in usual care settings.

The process involves 3 basic stages. Stage 1 is termed the freezing stage wherein range of motion decreases and pain gradually increases. Stage 2 is the frozen shoulder phase, stiffness rises to the level of interfering with many daily activities including brushing the hair, showering, and driving. Stage 3 is the healing phase, termed thawing, wherein range of motion increases and pain decreases.

Several procedures are often employed to stimulate thawing of frozen shoulder. ESWT and acupuncture were explored in the aforementioned research. Prescription and over-the-counter analgesics and anti-inflammatory medications are commonly prescribed or recommended by physicians. Corticosteroid injections into the shoulder and surgery (shoulder arthroscopy) are additional treatment options. Also, the injection of sterile water into the joint capsule of the rotator cuff (a procedure termed joint distension) is used to stretch tissue and increase mobility.

A physician may apply shoulder manipulation while the patient is under a general anesthetic. The physician moves the joint through varying directions to release adhesions for the purposes of resolving frozen shoulder. Since the patient is unconscious while the tissue adhesions are stretched or torn, the patient is able to withstand the procedure without discomfort. Acupuncture may be applied after shoulder manipulation to improve the recovery rate, prevent adverse effects, and to solidify treatment results.