# Shoulder Pain

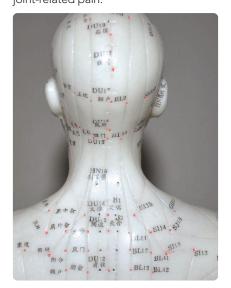
Summary Sheet Evidence-Based Assessment of Acupuncture Series

Society for Acupuncture Research | www.acupunctureresearch.org

## **Shoulder Pain Overview**

Shoulder pain is the third most common musculoskeletal condition, following back and neck pain. 1 The most common diagnoses relate to rotator cuff dysfunction (including impingement syndrome), adhesive capsulitis ('frozen shoulder'), glenohumeral osteoarthritis ('arthritis'), and subluxations/dislocations.<sup>2</sup> This summary will focus on the treatment of chronic shoulder pain and rotator cuff disorders. Of the common shoulder pain conditions, rotator cuff disorders are most prevalent (10%), however, the majority are poorly diagnosed/classified.<sup>2</sup> As a whole, these disorders often lead to impaired sleep, mood, and concentration and surveys suggest that shoulder pain disorders

lead to quality of life impairment on par with several major medical conditions (e.g. heart disease and clinical depression).3 Chronic shoulder pain (>6mths) may be the result of any of the common shoulder pain diagnoses, e.g. an untreated rotator cuff tear. Individuals suffering from shoulder pain and other joint-related disorders frequently seek treatment from providers of Complementary and Integrative Health (CIH).4 Of the numerous CIH modalities, the use of acupuncture is on the rise and approximately 16% of acupuncture visits in the U.S. are for the treatment of joint-related pain.5



# Shoulder Pain in Traditional East Asian Medicine (TEAM)

TEAM practitioners view the body in terms of Qi-dynamics and use a unique system and terminology. This is best summarized by the axiom "one pattern many diseases, one disease many patterns;" suggesting that identification of the correct pattern (e.g., Kidney gi deficiency) leads to improved shoulder treatment through the selection of pattern-specific acupuncture points. Shoulder pain, as a symptom, indicates a stagnation of the movement of gi and/or blood in the local channels, with additional contributing factors from lifestyle/work habits (e.g. repetitive overhead use) and TCM patterns.<sup>6-8</sup> Local acupuncture points are seen as the primary treatment of choice and astute palpation of the arm, shoulder, neck and surrounding musculature is advised for accurate point selection. In addition to acupuncture, treatments often include massage, cupping therapy, moxa (heat therapy), and home therapies such as topical herbal analgesics.

# Findings from the Acupuncture Research

**Acupuncture appears** effective for chronic shoulder pain; for rotator cuff disorders (impingement and tendinosis) the evidence is promising, but more research is needed.

#### **Chronic Shoulder Pain:**

- The most recent trial (n=80) suggests contralateral acupuncture is more effective than usual care.9
- A trial (n=424) suggests acupuncture is more effective than NSAIDs & physiotherapy; results maintained at 3-months.10
- A trial (n=425) suggests acupuncture (in addition to physiotherapy) is more effective than physiotherapy alone; results maintained at 1-year. 11
- The only systematic review conducted (2005) suggested: "...acupuncture may provide immediate improvements in both pain and function..."12

### **Summary and Commentary**

Current treatment guidelines for shoulder pain recommend 2-3 months of exercise and physical therapy as well as medications (e.g. NSAIDs).13 Despite this, up to 50% of patients do not respond to usual care and will develop chronic shoulder pain. 14-16 Of note, an earlier guideline (from 2013) suggests that acupuncture should be included as part of the initial course of treatment and rates its effects as on par with the use of Acetaminophen (i.e. Tylenol).<sup>17</sup> To date, the two largest trials suggest acupuncture is an effective option for shoulder pain and

warrants inclusion as part of a multi-modal treatment approach. 10,11 Although numerous and varying treatment protocols have been studied, treatment frequencies were similar in the clinical trials. To generalize, participants most often received acupuncture treatment 1-2x/week for 1-2 months.

# Scope and Purpose of Evidence-Based Assessment of Acupuncture Project

This project is supported by the Society for Acupuncture Research. It includes a growing library of condition specific assessments and summary sheets on topics such as dysmenorrhea, low back pain, neck pain, etc. Our aim is to evaluate the literature with a focus on systematic reviews and randomized controlled trials. When appropriate, other levels of evidence (e.g. case studies) are also referenced. The goal of the project is to inform policy-makers, clinicians, and the public of trends in the acupuncture literature and to provide expert commentary on the state of this evidence.

#### **Disclaimer of Warranties**

The author and publisher (Society for Acupuncture Research) have used their best efforts in preparing this report. The author and publisher make no representation or warranties with respect to the accuracy, applicability, fitness, or completeness of the contents of this report. The information contained in this report is strictly for educational purposes. Therefore, if you wish to apply or use ideas or information contained in this report, you are solely responsible for your actions. The author and publisher disclaim any and all warranties (express or implied), of merchantability, and of fitness for any particular purpose. The author and publisher shall not be liable to any person or entity for any direct, indirect, punitive, special, incidental, consequential or other damages arising directly or indirectly from any use of this report or any portion of its contents, which are provided "as is," and without warranties. The advice of a competent professional should be sought if you have any questions regarding this report or this disclaimer.

#### References

- 1. Urwin M, et al. Estimating the burden of musculoskeletal disorders in the community: the comparative prevalence of symptoms at different anatomical sites, and the relation to social deprivation. *Ann Rheum Dis.* 1998;57(11):649-55.
- 2. Meislin RJ, et al. Persistent shoulder pain: epidemiology, pathophysiology, and diagnosis. *Am J Orthop Surg.* 2005;34(12 Suppl):5-9.
- 3. Gartsman GM, et al. Self-assessment of general health status in patients with five common shoulder conditions. *J Shoulder.Elbow.Surg.* 1998;7(3):228-37.
- 4. Barnes PM, et al. Complementary and alternative medicine use among adults and children: United States, 2007. *Natl Health Stat Report*. 2008(12):1-23.
- 5. Burke A, et al. Acupuncture use in the United States: findings from the National Health Interview Survey. *J Altern Complement Med.* 2006;12(7):639-48.
- 6. Maciocia G. The Practice of Chinese Medicine. 1994.
- 7. Wu Y, et al. Practical Therapeutics of Traditional Chinese Medicine. 1997:265-71 CY Brookline.
- 8. Reaves W. *The Acupuncture Handbook of Sports Injuries and Pain*. Boulder, CO: Hidden Needle Press; 2009.
- 9. Zhang H, et al. Randomised controlled trial of contralateral manual acupuncture for the relief of chronic shoulder pain. *Acupunct Med*. 2016;34(3):164-70.
- 10. Molsberger AF, et al. German Randomized Acupuncture Trial for chronic shoulder pain (GRASP) a pragmatic, controlled, patient-blinded, multi-centre trial in an outpatient care environment. *Pain*. 2010;151(1):146-54.
- 11. Vas J, et al. Single-point acupuncture and physiotherapy for the treatment of painful shoulder: a multicentre randomized controlled trial. *Rheumatology* (Oxford). 2008.
- 12. Green S, et al. Acupuncture for shoulder pain. *Cochrane Database Syst Rev.* 2005;Apr 18(2):CD005319.
- 13. American Association of Orthopaedic Surgeons. 2010; http://orthoinfo.aaos.org/topic.cfm?topic=A00065.
- 14. Kuijpers T, et al. Costs of shoulder pain in primary care consulters: a prospective cohort study in The Netherlands. *BMC Musculoskelet Disord*. 2006;7:83.
- 15. van der Heijden GJ. Shoulder disorders: a
- state-of-the-art review. *Baillieres Best Pract Res Clin Rheumatol*. 1999;13(2):287-309.
- 16. Chard MD, et al. Shoulder disorders in the elderly: a community survey. *Arthritis Rheum*. 1991;34(6):766-69.
- 17. Hopman K KL, Lukersmith S, McColl AR, & Vine K. Clinical Practice Guidelines for the Management of Rotator Cuff Syndrome in the Workplace.: The University of New South Wales; 2013.



Prepared December 2021: SAR, Translators of the Evidence www.AcupunctureResearch.org

The entire series of Assessments and Summary sheets are available free of charge for members of the Society for Acupuncture Research.

www.acupunctureresearch.org/join