



# Evading Musculoskeletal Conditions Using Qigong as a Rescue Technique

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Classically, Qigong is a Chinese technique that has been practiced in China for the past 3,000 years for healing the inner self. Qigong, wherein “Qi” means body energy and “Gong” denotes cultivation, regulates the energy flow in the body. The Qigong technique comprises a package of deep breathing training, gentle and rhythmic movement, and muscle-strengthening exercises that heal the body to activate one’s internal soul energy. It has demonstrated its efficacy by inducing relaxation, building up stamina, strengthening immunity, appreciating muscle conditioning, and minimizing anxiety and depression. Furthermore, it has been beneficial in improving awareness of joint and movement senses. Specifically, Qigong brings healing by regulating energy flow in the whole-body systems. Moreover, it has exhibited a variety of regenerating effects by inducing emotional and mental relaxation. In today’s world, Qigong exercises are being used for treating musculoskeletal disorders that are work- and stress-related by nature. Qigong is practiced globally as deep breathing exercises, and meditation is practiced for peace of mind and spirituality, whereas vigorous practice includes martial arts.

**Keywords:** Meditation, Qigong, Relaxation, Strength training, Technique

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## INTRODUCTION

Work related musculoskeletal disorders show characteristic symptoms as pain and muscle spasm. The most common regions characteristically involved are lower back, neck, upper limbs, and synovial joints. Musculoskeletal conditions when treated unprofessionally, may lead to further damage, progressing to disorders which involving the tendons, peripheral nerves and capsules. Exercise therapy has been a treatment of choice, which comprise of stretching, strengthening, range of motion, and relaxation exercise [1]. Research presents Chronic Non-Specific Low Back Pain (CNSLBP) to be a common complaint among young adults between age 20-40 years following sitting period of more than 4 hours day. The practice of Qigong is a promoting strategy for management of CNSLBP, as it reduces stress along with the required physical treatment. Qigong exercises not only treat physically it also treats mentally and spiritually [2]. According to the World Health Organization, Health is a state of complete physical, mental, social, psychological, and spiritual wellbeing with not merely absence of disease and infirmity. Thus, Qigong works as per the mandatory components of health. In addition, according to the National Institute of Health and Science, 75% of individuals working in the business sectors, experience low back pain and other musculoskeletal conditions. Along with advanced medical interventions, individuals also consider alternative and complementing therapies to seek relief from such conditions [3].

Arthritis can be a devastating health concern common seen in across the globe. Qigong has proved its metal by delivering a promising and beneficial exercise regime for people suffering from chronic arthritis. Qigong regimen is widely being practiced in China since centuries as a useful intervention strategy for individuals having painful conditions, problematic arthritis, anxiety and stress [4]. When discussing arthritis, osteoarthritis is the most common

form of arthritis. In general, patients suffering from osteoarthritis consume significant doses for pharmacological medicines in their daily routine. Few research in China show reduction in symptoms of severe arthritis but following Qigong therapy sessions. Qigong practice diminishes arthritis symptoms by relaxing the tissues and enhancing the flow of blood to the diseased tissue by delivering enough oxygen nutrients and neurotransmitters to remove pain mediators and metabolic waste from affected tissues. Hence, Qigong receives attention and interest from research world-wide [5-7].

Documentation of Qigong technique for musculoskeletal conditions lacks one's going through literature because of scarcity of knowledge about practicing Qigong. It comprises of a full-length protocol for an individual's health and wellness. A Qigong session (Table 1) is divided in 3 parts with 13 steps in total [1,8].

- A. Mastering breathing and concentration [1].
- B. Complete Qigong sets [1].
- C. Understanding Qigong [1].

Qigong allows individuals to cultivate the natural force of energy as Chinese technique. Qigong maintains harmony of energy flow in the body. Work related musculoskeletal disorders are reported world widely because of stress and daily messy schedule. Poor posture and bad dietary intake are the leading reasons for musculoskeletal alterations. Qigong relaxes the body and mind of an individual when performed accurately in sequence of sets designed as Qigong regime [4].

## ABDOMINAL SEQUENCE IN QIGONG

The abdominal sequence includes, set of poses which include abdominal massage, stretching and strengthening of core muscles. Control of breathing while performing these

**Table 1.** Qigong session

Component	Title	Step
I	Breathing control	<ul style="list-style-type: none"> <li>• Focus on rhythm of breathing</li> <li>• Stretching the breath</li> <li>• Relaxing the mind</li> <li>• Relaxing the body</li> <li>• Move and breathe in unison</li> </ul>
II	Understand procedure of Qigong	<ul style="list-style-type: none"> <li>• Clear of Qigong</li> <li>• Familiarize on self with practice Qigong in accordance to the achievable benefit</li> <li>• Determine relevance of Qigong</li> <li>• Observing effects of Qigong as beneficial or non-beneficial</li> </ul>
III	Practicing Qigong	<ul style="list-style-type: none"> <li>• Practice ideal sitting posture</li> <li>• Try ideal standing posture</li> <li>• Work on walking posture</li> <li>• Try other postures in progression</li> </ul>

## DISCUSSION

sets is mandate to observe promising results. Dietary modifications are required for proper functioning of abdominal organs and process of digestion. Liver, gall bladder, stomach, small intestine, and large intestine are interrelated in process of digestion. Proper functioning of all the organs is mandatory to achieve a healthy life [9-14].

The abdominal sequence (Table 2) includes a set of poses which include abdominal massage, stretching and strengthening of core muscles.

The abdominal sequence is prescribed for middle burner disorder, improving the process of digestion and for weight loss. Back stretching and strengthening exercises can also be included for early and quick improvement.

Standardization Qigong protocols: As, every individual endures respective benefits from exercise, Qigong is a safe and gentle practice in the form of stretching exercises and rhythmic movements (Tables 3-5) [9-14].

Precautions while Qigong practice: Do not eat at least 30 minutes before Qigong practice [14].

- a. The Qigong protocol for beginners is recommended to be followed early morning (Table 4) [15-20].
- b. If any position creates discomfort, then quit the step, and move on another step.
- c. Wear loose and comfortable clothes.

In 2019, a randomized controlled trial (RCT) was conducted to investigate effects of Qigong practice among of-fice workers in Bangkok, with CNSLBP [2]. Qigong Practice show cased as significant technique in decreasing intensity of pain and back functional disability [2]. As questions of whether Qigong being non inferior to exercise therapy in patients with low back pain are raised, many researches are conducted for this unclear evaluation. A comparative study reflected statistically and clinically significant results towards using Qigong as low back pain treatment [3]. A favoured Qigong workout set consisting of 24 postures is used to treat back discomfort [4]. Positive outcomes are recorded with clinically significant and symptomatic relief with the use of Qigong Practice. In addition, Qigong is also a useful intervention strategy for adults with different forms of painful arthritis. A review conducted by Marks [5] to fuse effects of Qigong exercises in Arthritis, concluded, reduction of pain and depression to be possible with use of Qigong Practice.

It shows improvement in an individual's quality of life suffering from pain, arthritis, and depression [5]. As knee is the most favorable site for arthritis to attack, RCT was conducted on patients with knee osteoarthritis for observing effects of Qigong therapy sessions in painful condition of

**Table 2.** Abdominal sequences

Exercise	Instruction	Repetition	Effect
Grounding Digestion	Abdominal massage in downward direction to create a direction for food to travel through intestines	5 repetitions × 2 sets (twice daily)	Relieves constipation, balance process of digestion
Organ Yang	Extend diaphragmatic breathing with incorporating catching and throwing movement of upper and lower limbs	5 repetitions × 2 sets (twice daily)	Produce huge amount of energy stimulation and improves digestion
Rotating North Star	Twisting and rotation movements of trunk and lower body (torso rotations)	5 repetitions × 2 sets (twice daily)	Provide massage to liver, spleen and other abdominal organs, also beneficial in menstrual pain

**Table 3.** Qigong protocol for practice

Standing	Lying face-up	Lying face-down
<ul style="list-style-type: none"> <li>• Deep abdominal breathing</li> <li>• Abdominal massage</li> </ul>	<ul style="list-style-type: none"> <li>• Deep breathing</li> <li>• Knee to chest</li> <li>• Trunk twisting</li> <li>• Bridge</li> </ul>	<ul style="list-style-type: none"> <li>• Tai Chi push up</li> <li>• Child pose</li> <li>• Dolphin pose</li> <li>• Cobra pose</li> </ul>
<ul style="list-style-type: none"> <li>• Arm swings</li> <li>• Shaking</li> <li>• Tiger pose</li> <li>• Turtle pose</li> <li>• Wide leg weight shift</li> <li>• Swimming</li> <li>• Lunges</li> </ul>	<ul style="list-style-type: none"> <li>• Leg-circle/pulling the bow</li> <li>• Bicycle</li> <li>• Core: right leg up, left leg up, both legs up</li> </ul>	<ul style="list-style-type: none"> <li>• Cat tuck</li> <li>• Mountain with leg extension</li> </ul>

**Table 4.** Qigong protocol for beginners








Position	Movement	Description	Instruction	Repetition	Image
Standing	Deep abdominal thoracic breathing	This movement allows control on breathing and makes mind relax	Inhale deep as much as you can. Act like sniffing in 2 to 3 breaks of continues inhalation. With hands placed around side	2 repetitions × 2 sets × once daily	
Standing	Raising arms	The movement makes extension of diaphragmatic breathing with incorporating movement of upper limbs	Raise your arms in side of your body along with deep inhalation	2 repetitions × 2 sets × once daily	
Standing	Paint a rainbow pose	The movement makes extension of diaphragmatic breathing with incorporating catching and throwing movement of upper limbs	Make your body free and move your arms like you are painting in air	2 repetitions × 2 sets × once daily	
Standing	Separate clouds	The movement makes extension of diaphragmatic breathing with incorporating catching and throwing movement of upper and lower limbs	Enjoy the session with rhythm and freely move your body in air like you are dancing or separating clouds in sky	2 repetitions × 2 sets × once daily	
Standing	Rolling arms	The movement makes extension of diaphragmatic breathing with incorporating movement of upper limbs	With not holding your breathe and continuing abdominal thoracic breathing try to roll your arms like circumduction	2 repetitions × 2 sets × once daily	
Standing	Row a boat	The movement makes twisting and rotation movement of trunk and lower body (torso rotations) which is beneficial for abdominal massage	Incline your arms upward and laterally like a boat	2 repetitions × 2 sets × once daily	
Standing	Gaze at moon	The movement makes our mind relax and moves breathe and soul toward unison	Move your arms upward on either side of body and look upward toward sky like you are gazing a moon	2 repetitions × 2 sets × once daily	

Table 4. Continued

Position	Movement	Description	Instruction	Repetition	Image
Standing	Balance a ball	The movement provides balance and strength of upper limb	Maintain your arm in a position like you are holding a basketball	2 repetitions × 2 sets × once daily	
Standing	Step and bounce ball	The movement provide balance, strength and proprioception	Stand on single leg stance and act like you are bouncing a ball	2 repetitions × 2 sets × once daily	
Standing	Rotate wheel	The movement makes twisting and rotation movements of trunk and lower body (torso rotations) which is beneficial for abdominal massage	Move your trunk along with your arms like you are rotating a wheel with both hands	2 repetitions × 2 sets × once daily	
Standing	Punching	The movement provides balance, strength and proprioception of upper limb and trunk	Attain a posture of contraction like you are punching someone in front of you	2 repetitions × 2 sets × once daily	
Standing	Dove spreading wings	The movement makes our mind relax and moves breathe and soul towards unison with twisting and rotation movements of trunk and upper limbs	Make your body free and feel like you are a bird who is spreading wings for flying high	2 repetitions × 2 sets × once daily	

The above-mentioned protocol is recommended to be followed early morning; As a safeguard, individuals fascial gestures should be given priority; Any observed inconvenience is indication for temporary termination of the protocol.

arthritic knee. Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC Index) scoring was taken for outcome of pain intensity. The study concluded significant decrease in pain and WOMAC scoring [6]. Tai Chi and Qigong in combination is also a good option of treatment in osteoarthritis of knee. Another study was conducted to evaluate the effects of Tai Chi and Qigong training on quality of life and functional activities of patients with knee osteoarthritis [6]. Qigong and Tai Chi sessions were conducted for 8 weeks, with each session is of one hour and conducted twice a week. WOMAC index was recorded for outcome. The study concluded Tai Chi and Qigong training to be beneficial option for improving functional activity and quality of

life among subjects having osteoarthritis of knee [7]. Qigong and Tai Chi achieve good results in physical, physiological, and psychological effects in RCT's and reviews. Research reflects evidence of good outcomes with using Qigong exercises in clinical practice [8]. A RCT conducted to evaluate Qigong session is more effective than nil treatment and nevertheless inferior to exercise therapy. Though evidence for supporting Qigong practice is less, but still, it's a topic of interest. Qigong session when compared with nil treatment group, showed that Qigong to be superior to no treatment group and non-inferior to exercise therapy group [9]. A session of 24 set of Qigong exercise when conducted for 3 months in population having neck pain, with outcomes of

**Table 5.** Standardized Qigong protocol sequence for low back pain

Position	Movement	Procedure	Repetitions & hold	Purpose
Supine	<ul style="list-style-type: none"> <li>• Knee to chest</li> <li>• Pelvic rotations</li> <li>• Bicycling legs</li> </ul>	<ul style="list-style-type: none"> <li>• Ask the patient to bring knees towards chest</li> <li>• Bend your knees and rotates them in movement opposite with neck</li> <li>• Moving your legs as you are riding a bicycle in air</li> </ul>	5 repetitions × 2 sets × 5 seconds hold (twice daily)	<ul style="list-style-type: none"> <li>• Core strengthening</li> <li>• Abdominal strengthening and lumbar muscles stretching</li> <li>• Kinematic chain balancing</li> </ul>
Prone	<ul style="list-style-type: none"> <li>• Flying pose</li> <li>• Cobra pose</li> <li>• Down dog pose</li> <li>• Peacock pose</li> </ul>	<ul style="list-style-type: none"> <li>• Make your body free and move your arms like you are painting in air</li> <li>• Recline your back in extension</li> <li>• Exhale and lift your knees from the floor with heels slightly off the floor</li> <li>• Place your arms from floor taking weight on arms by lifting chest, arms and legs up</li> </ul>	5 repetitions × 2 sets × 5 seconds hold (twice daily)	<ul style="list-style-type: none"> <li>• Back strengthening</li> <li>• Back mobility</li> <li>• Back flexibility</li> <li>• Back mobility</li> </ul>
Sitting	<ul style="list-style-type: none"> <li>• Forward bending with cross legs</li> <li>• Turtle pose</li> <li>• Forward bending and try to reach toes</li> <li>• Open hip squatting</li> </ul>	<ul style="list-style-type: none"> <li>• In cross sitting bend forward</li> <li>• Sit on your legs stretched out, leg flat and knees bent then placing hands forward flat on the floor</li> <li>• Bend forward in sitting and try to touch your toes</li> <li>• In sitting, position with knee at 90 degrees try to do squatting</li> </ul>	5 repetitions × 2 sets × 5 seconds hold (twice daily)	<ul style="list-style-type: none"> <li>• Back strengthening</li> <li>• Elongates spine</li> <li>• Hamstring stretching</li> <li>• Back mobility and stretching</li> </ul>
Standing	<ul style="list-style-type: none"> <li>• Wide leg bending forward</li> <li>• Wide leg twisting</li> <li>• Thumb pressing</li> <li>• Spinal twisting</li> </ul>	<ul style="list-style-type: none"> <li>• Stand hip width apart and try to bend forward</li> <li>• Stand hip width apart and twist your spine (torso rotations)</li> <li>• Stand hip width apart and try to press thumb on the floor</li> <li>• In standing rotate your trunk in torso rotations</li> </ul>	5 repetitions × 2 sets × 5 seconds hold (twice daily)	<ul style="list-style-type: none"> <li>• Back strengthening</li> <li>• Back mobility</li> <li>• Back flexibility</li> <li>• Back mobility</li> </ul>

The above-mentioned protocol is recommended to follow in the early morning; The protocol should be followed after overnight fasting; The practitioner should be defecated to get better results; Any observed inconvenience is an indication for termination of the protocol.

visual analogue scale (VAS) and neck pain and disability questionnaire, outcome showed significant decrease in VAS and improvement on neck pain and disability questionnaire, hence, proving Qigong to be an efficient practice for treating neck pain [10]. The purpose of this review was to retrieve information on the effectiveness of Qigong in musculoskeletal conditions. Various studies reflect Qigong practice as effective treatment.

## CONCLUSION

Qigong is beneficial in low back pain, neck pain, arthritis, and other common musculoskeletal conditions. It is a treatment of choice in chronic pain as it not only treats physically, but also effective for stress, depression, and anxiety. This review concludes Qigong practicing methods and protocols specifically to be involved in treatment of musculoskeletal conditions. As stated, literature in support of Qigong practice lacks, it is therefore urged to researchers to conduct research and promote Qigong rendering its numerous health benefits to human mankind. Qigong practice is lacking evidence in literature therefore further studies are required for

uplifting the Qigong practice.

## NOTES

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