

## 4 Weekend

A new study shows that the ancient Chinese techniques alleviate back pain. Peta Bee reports

If you're one of the millions of people in the UK who suffer from a bad back, there could be a solution at hand that's more than 4,000 years old. A new study, published in the *North American Spine Society Journal*, shows that when combined with meditation, qigong and t'ai chi — related ancient Chinese practices involving flowing movements, careful body posture and breathing — are effective at reducing lower-back pain. A raft of other studies show that they can help with everything from stress relief to blasting belly fat. No wonder Gisele Bündchen, Tiger Woods and Julia Roberts are fans.

The most recent figures compiled by the Office for National Statistics revealed that 2.9 million Britons had problems linked to their back or neck, up from 2.6 million in 2019, with a 28 per cent rise in those citing back pain as a reason for long-term absence from the workforce during the same period. It is well established that most forms of physical activity are helpful for relieving back pain, but the new findings suggest qigong and t'ai chi hold particular benefit when it comes to alleviating it.

Although similar practices, often used to complement one another, t'ai chi and qigong work in subtly different ways. Qigong is a system of wellness based on repeating movements or breathing techniques for benefits such as improving lung circulation or posture. "It's an ancient Chinese healing art that nurtures vital energy and focuses on internal balance and health," says Dr Yang Yang, a t'ai chi grandmaster and researcher at the Center for Taiji and Qigong Studies in New York, who led the new back pain study. "Tai chi incorporates qigong principles but is primarily a series of bodily movements with both healing and martial art functions."

Classes of t'ai chi and qigong, which typically last about 45-60 minutes, involve slow gentle movements and postures that are often loosely based on the movement patterns of animals. In t'ai chi, the postures and stances — which can be simple shoulder circles or more advanced martial art kicks and punches — are designed to flow in a sequence, whereas the similar movements of qigong are focused on a particular outcome, such as easing back and neck pain. "Doing either or both is definitely going to benefit most people," says Arron Collins-Thomas, a qigong instructor based in Bath and London. "The important thing is to find an instructor that you like and trust." He suggests one or two classes a week to learn technique, but to practise the moves at home every day.

There is plenty of evidence outlining the benefits of both. In his study, Yang and a team of medical scientists from leading US universities looked at the effects of a 12-week programme of qigong, t'ai chi and meditation on patients who had suffered with lower-back pain for at least six weeks.

Yang's interest in healing back pain is based on his own experience of it. "In 2014, following a bike accident, I faced debilitating back pain," he tells me. "Initially, I turned to conventional approaches and even considered surgery, but when these methods didn't bring relief, I chose not to proceed with surgery and instead returned to t'ai chi and qigong, experimenting with



## Bad back? Why t'ai chi and qigong could help

movements and modifications to find the most effective healing practices."

He applied these in his research and twice a week 175 participants attended hour-long online classes that focused on meditation practices and on gentle qigong and t'ai chi movements that aimed to promote relaxation, spinal flexibility, posture, balance and core strength. "The programme consisted of six ten-minute segments that combine stillness and movement, two essential components for relieving lower-back pain and preventing injury, according to Chinese healing and martial arts," he says. All the participants were asked to continue practising at home with a ten-minute daily session they could do at any time. After three months, those doing the classes reported significantly less back pain, improved physical function and better sleep than a control group who did not. The reported benefits were holistic, not just improving posture, flexibility and core muscle strength, but reducing the mental stress that is linked to chronic back pain. "Our study showed that t'ai chi and qigong offer a feasible, non-pharmacologic treatment for adults with lower-back pain," Yang says.

Apart from back pain, studies suggest that qigong and t'ai chi can help with everything from keeping joints healthy

and strengthening bones to boosting lung health and even supporting immunity, with a study at the University of Illinois showing qigong enhances the efficacy of the flu vaccine.

Collins-Thomas says his client base has expanded to the corporate world and that the rise in demand for classes and retreats is unprecedented. "Qigong is where yoga was 15-20 years ago," he says. "People are finding that it is accessible, easy to perform anywhere without changing into gym clothes or necessarily getting sweaty, and can help their wellbeing in so many different ways."

### Just ten minutes a day can help back pain

Yang says that attending a class to learn the basics of t'ai chi and qigong is important, but after that aim for as much as you can manage, such as 15-30 minutes every few days or two classes a week. Even ten minutes a day at home can be helpful. His online back pain classes include "stillness meditation, done standing, sitting or lying down, to promote calmness, body awareness and deep relaxation, and slow, simple movements to cultivate flexibility, core strength, energy flow and proper body mechanics and alignment."

“Slow, simple movements cultivate flexibility, core strength, energy flow and alignment.”

### T'ai chi and qigong can help you to run faster

It might not leave you breathless and sweaty, but regular t'ai chi or qigong will enhance overall fitness. "Holding positions for a period of time can be deceptively demanding," Collins-Thomas says. For beginners, postures can be held for seconds or minutes, but for advanced practitioners, some qigong stances can be held for as long as 20 minutes. Over time it will help to develop strength and muscle function that is helpful in a range of sports.

A review involving 9,263 participants that was conducted at the University of Auckland found that t'ai chi produced a host of "psychological and physical benefits" including better flexibility, improved lung capacity, and even improved the 800m and 1,000m running times of university students by ensuring their bodies moved more efficiently.

### Do t'ai chi twice a week to prevent cognitive decline

T'ai chi can help to slow cognitive decline and may even protect against dementia, according to the results of a study in the



journal *Annals of Internal Medicine*. The Oregon Research Institute recruited 318 older adults in their seventies who had reported mild memory impairment and provided some with an online form of "cognitively enhanced" tai chi — in which participants were challenged to spell words forwards and backwards as they practised their moves — and others with routine regular stretching to be performed for one hour twice weekly.

Six months later their evaluations showed that the tai chi group significantly improved their scores in memory tests, with the researchers suggesting twice-weekly tai chi sessions would help to ward off cognitive decline by several years if they kept it.

### T'ai chi helps to blast harmful belly fat

Despite burning only about 108 calories in half an hour, similar to a moderate walk, tai chi can mirror some of the health benefits of conventional gym exercise when it comes to blasting the harmful visceral belly fat that settles around the internal organs and raises the risk of metabolic disorders.

Researchers at the University of Hong Kong and Chinese University of Hong Kong team tracked 543 midlife for a study in *Annals of Internal Medicine*. Some participants were asked to follow a

conventional exercise plan consisting of aerobic exercise and strength training, others a tai chi programme, while a control group did no exercise.

At the end of the three-month study, those practising tai chi had lost 1.8cm from their midriff — and also lowered their cholesterol levels — compared with 1.3cm lost by those doing regular weights and aerobic exercise.

Much of this is down to the adaptations to muscle that come with holding the necessary positions. "People are often surprised at the changes to their shape when they do tai chi," Collins-Thomas says. "The benefits are huge."

### Qigong boosts sleep

Any sort of regular physical activity has been shown to aid good sleep, and qigong is no exception. In Yang's back pain study, participants said their sleep improved when they started doing the qigong and tai chi programme.

A paper by researchers at Shanghai University of Traditional Chinese Medicine suggests that a qigong practice of abdomen rubbing — including using three fingers to apply circular pressure around the belly button 21 times clockwise and then anticlockwise while lying down, then repeating using first the right and then the left palm — might help to improve sleep quality in patients with insomnia. "My clients certainly find that the calming effect qigong has on the mind helps them to sleep better," Collins-Thomas says.

### Regular tai chi can prevent age-related decline in balance

Our ability to balance declines as we age and is implicated in falls and risk of fractures. Tai chi is a great way to preserve balance, with a study published last month in the journal *Aging and Public Health* showing that attending two 45-minute classes of tai chi a week "positively affects the balance performances of healthy older adults".

When researchers from Brigham and Women's Hospital, Harvard Medical School and Tel Aviv University followed 27 healthy adults aged 50-79 who had practised tai chi for a minimum of five years and an additional 60 healthy age-matched adults who had never tried it, they found that long-term tai chi stems the tide of physical decline. Their results, published in the *Aging Cell* journal, showed the tai chi "experts" statistically outperformed the non-tai chi group on almost every measure of functional fitness, including a timed single-leg stand with eyes closed to assess balance.

### Is it ever too late to start?

"People of any age or physical condition can benefit from tai chi and qigong," Yang says. "These practices nurture the mind, body and spirit in a multidimensional way and can be adapted to be accessible for everyone." The earlier you start tai chi or qigong the better, although Collins-Thomas says he has worked with people in their eighties and nineties. "They are practices that promote longevity if done regularly, but it is never too late in life to take them up," he says. "I have even taught people in care homes who can try the breathing exercises of tai chi to improve general circulation."

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## Slow flow — five simple qigong exercises to try at home

### Pushing mountains

Mobilises all the joints in the body and strengthens the arms, shoulders and legs



1 Bend both knees, with legs slightly wider than shoulder width. Keep your back vertical. Have your hands in fists at your hips.

2 Sink down into a low stance, as you push your left hand forward to finish with your palm facing away and fingers pointing up. Breathe out as you push your palm forwards.

3 Breathe in, retract your left hand and make a fist at your hips as you return to your original stance.

4 Repeat with the right hand. Repeat the sequence seven times.

### Exchanging heaven and earth

Improves shoulder and arm flexibility, as well as breath co-ordination



1 Stand with feet shoulder-width apart and stretch your right arm up with palm upwards, and your left arm down, palm downwards, in the centre of your body. Breathe in.

2 Bring your hands towards each other until they are at chest height. Breathe in as your hands come towards each other at chest height.

3 Stretch your left arm up, palm towards the sky, and your right hand down, palm towards the earth. Repeat the sequence seven times.

### Standing on one leg with balloons

Good for balance, which reduces the risk of falling



Place your hands at hip height as though they are resting on imaginary balloons. Stand on your left leg with the knee slightly bent and lift your right knee as high as possible. Point the toes downwards. Hold this for between 30 seconds and two minutes. Repeat on the other leg.

### Seated pushing the sky and twisting

Improves flexibility in the shoulders, spine, waist and hips. Also strengthens the upper body



1 Sit cross-legged, interlock your fingers and push the heels of your palms upwards. Breathe out. Hold this position for a minute or more, breathing softly.

2 Twist to the left as far as is comfortable. Hold this position for a minute or more. Breathe out as you twist, then softly while holding the position.

3 Repeat the twist and hold to the right. To end the sequence, bring your hands down to rest in your lap. Circle your shoulders to ease any muscle strain.

### Holding a ball

Builds strength and balance. Regular practice improves patience and calmness

Stand with legs shoulder-width apart. Transfer weight to your left leg, and bend your right knee. Imagine that you are holding a ball. Hold for two to five minutes, and then repeat on the other side.



From *The Qigong Bible* by Katherine Allen (Godshead Press £14.99)



From top: Gisele Bündchen, Julia Roberts and Tiger Woods are all fans