

## **Qigong Sleep Study Information and Consent Form**

The Qigong Sleep Study is a joint project between the Confucius Institute at the University of Wales Trinity Saint David, Northumbria University and the Jiangxi University of Traditional Chinese Medicine. We would like to invite you to participate in this research into the effect of Sleep-Improving Qigong (SIQ) practice on sleep health.

### **Sleep-Improving Qigong (SIQ)**

Qigong comes from the ancient Chinese tradition of nurturing and preserving health. It is a holistic practice whose aim is to nourish our mental, physical and emotional wellbeing. The practice involves simple movements that can be carried out standing, sitting, or even lying down.

In China as in the West, it is recognised that poor quality sleep, often linked to stressful modern lifestyles, undermines the wellbeing of large numbers of people, can contribute to a range of other diseases, and in some instances requires clinical intervention.

For this reason, Jiangxi University of Chinese Medicine, as one of China's leading universities in the scientific study of Qi Theory, and a TCM university with a large teaching hospital, has developed a specialised Qigong practice for improving sleep.

The practice has been designed by Professor Zhang Wenchun, drawing on the principles of Chinese Medicine and Zhineng Qigong. Initial research in China on the effectiveness of the practice has shown some very promising results, leading to the proposal to carry out research in the UK.

### **Sleep-Improving Qigong (SIQ) Exercise Description**

The exercise, which takes a maximum of 30 minutes daily to complete, combines the mindful focus of attention with simple physical movements as well as energy chanting to tune each of the five internal organs as understood in traditional Chinese Medicine.

The Sleep-Improving Qigong practice consists of five simple sections which can be performed standing, sitting or lying down.

The opening section prepares participants to enter a relaxed state (Qi State) where mind, body and Qi blend into a unified whole.

The three middle sections make use of meditative arm movements to help to unblock Qi flow, nourish the internal organs, and with the addition of chanting the energetic sound signature of each organ, create a vibrational resonance that helps to eliminate imbalance that causes poor sleep.

The closing section quietly nourishes Qi and prepares the body for sleep.

The exercise is taught over a period of 4 weeks through a series of online tutorials and daily (late evening) practice by the participants of about 30 minutes, before bed. A choice of either video or audio recordings to guide participants through the practice are provided. These are for personal use only. Commercial use is prohibited.

Your participation is voluntary, and you can withdraw from the study at any point without giving a reason by contacting [Petia.Sice@northumbria.ac.uk](mailto:Petia.Sice@northumbria.ac.uk). You cannot withdraw on completion of the study as at this point data will be fully anonymised and not accessible for identification and extraction.

## Personal Information

The study starts with a 9-day period **before** the commencement of the Sleep-Improving course and daily exercise sessions. During this 9-day period you will be asked to complete a simple sleep diary so that we can establish what your normal sleep patterns are. You will be asked to continue completing the sleep diary every day during the Sleep-Improving Qigong course and exercise over the period of 4 weeks.

You will be asked to complete an online health and wellbeing baseline questionnaire at the beginning of the research, as well as before the commencement of the Sleep-Improving course, and at the end of the research. In addition, you will be asked to complete the online evaluation at the end of the study. You will have your own log on account. You will be able to access your personal information throughout the period of study.

During/after the study, we may ask to interview a small number of participants. This is voluntary. All interviews will be anonymised.

In this study, a group of 20 volunteers will use an actigraphy device to collect your sleep data to gain a better understanding of your sleep patterns and overall sleep quality. As sleep is an unconscious activity, it can be challenging to accurately record your wakefulness during the night. Actigraphy is a non-invasive method that involves wearing a small, wrist-worn device (like a Fitbit) that measures your movement throughout the night. This device enables us to reliably track and analyse various aspects of your sleep, such as duration, efficiency, and wake-up times, without disrupting your natural sleep environment. The data collected will provide valuable insights into the relationship between sleep and the study's objectives, ultimately helping us to develop targeted interventions and recommendations for improving sleep health. Your participation and the information gathered from the actigraphy device are essential to the success of this research.

We will ask you to wear an actigraphy device for 18 days during your participation in this study. The wearing period is divided into two stages, the first stage is the 9-day wearing period before the Qigong exercise training, and the second stage is 9 days before the end of the Qigong exercise training. You are free to choose whether to wear or not to wear the actigraphy device in this study, if you choose to wear the device, we kindly request your commitment to wear the device over two periods, unless you decide to fully withdraw from the program. We kindly request that you wear the device on your dominant hand for 24 hours a day, for 9 days. During the first wearing period, after four days of wearing please charge it using the provided charging cable for 2-3 hours. After nine days of wearing please use the pre-paid envelopes to return it for us to download your data and charge the device. During the second wearing period, you will follow the same procedure. After the Qigong study finishes, please return it using the pre-paid envelopes provided.

To ensure that the actigraphy device is returned to us we will ask you to pay a REFUNDABLE deposit of £20. You will receive the deposit in your account within 10 days of the device being returned to us in the postage paid envelopes we will provide. Please retain proof of postage.

The actigraphy data, primarily utilised to analyse your daily sleep patterns, will also encompass daily activities like walking (step count), cycling, sitting, standing, and total daily energy expenditure. In terms of sleep monitoring, our analysis will focus on sleep-related data, including the time you fall asleep, time you wake up, minutes of wake-after-sleep-onset, sleep quality, and the sleep regularity index.



Figure 1 AX 3 wearable Band

NO QIGONG PRACTICE PERIOD						DAY 1 WEAR DEVICE NO qigong	DAY 2 WEAR DEVICE
DAY 3 WEAR DEVICE NO qigong	DAY 4 WEAR DEVICE	DAY 5 WEAR DEVICE	DAY 6 WEAR DEVICE	DAY 7 WEAR DEVICE	DAY 8 WEAR DEVICE	DAY 9 WEAR DEVICE	
		CHARGE DEVICE					
QIGONG EXERCISE PERIOD							
DAY 1 Practice qigong	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	
RETURN DEVICE	NO DEVICE	NO DEVICE	NO DEVICE	NO DEVICE	NO DEVICE	NO DEVICE	
DAY 8 Practice qigong	DAY 9	DAY 10	DAY 11	DAY 12	DAY 13	DAY 14	
NO DEVICE	NO DEVICE	NO DEVICE	NO DEVICE	NO DEVICE	NO DEVICE	NO DEVICE	
DAY 15 Practice qigong	DAY 16	DAY 17	DAY 18	DAY 19	DAY 20	DAY 21	
NO DEVICE	NO DEVICE	NO DEVICE	NO DEVICE	NO DEVICE	RECEIVE DEVICE	WEAR DEVICE	
DAY 22 Practice qigong	DAY 23	DAY 24	DAY 25	DAY 26	DAY 27	DAY 28	
WEAR DEVICE	WEAR DEVICE	WEAR DEVICE CHARGE DEVICE	WEAR DEVICE	WEAR DEVICE	WEAR DEVICE	WEAR DEVICE	
DAY 29 RETURN DEVICE							

Figure 2 Actigraphy Wearing Timetable

Information gathered from volunteers not wearing the actigraphy device is also extremely important to the success of the study.

### Personal information policy

Any personal information that may be collected during the course of the research is kept strictly confidential, held securely, and all data will be anonymised on completion of the study. Due care will be taken that



江西中醫藥大學  
Jiangxi University of Traditional Chinese Medicine

individuals are not indirectly identifiable. Fully anonymised research data may be deposited in a research repository, with the requirements of the UK Data Protection legislation: <https://www.gov.uk/dataprotection>.

Your email address will only be used to contact you and to deliver the study and will be deleted after the study is complete, unless you opt into receiving information about future studies, courses or events. If you choose to attend the live-streamed sessions, you can do so with or without switching on your camera. However, your Zoom ID will be visible during the session, unless you anonymise it. How will the information be used? The anonymised data will be used for research purposes only: to evaluate the impact of the Qigong practice on the participants' wellbeing; to explore participants' experiences of the practice; to improve the evaluation tools and methods. The data will be analysed by a multidisciplinary academic team, and findings may be published in research journals. The information obtained from the study may help to establish whether the Sleep-Improving Qigong practice can be offered more extensively as a therapeutic intervention for a range of chronic conditions, or as a self-help tool for promoting better sleep and general well-being. We will share the findings with you.

Ethics approval (3788) for this study was granted by Northumbria University, Newcastle upon Tyne. Enquiries should be addressed to [Petia.Sice@northumbria.ac.uk](mailto:Petia.Sice@northumbria.ac.uk). When you access the Sleep-Improving Qigong Study online links to the practice materials it is on the understanding that you have read and agreed to the information contained in this form and accept the small risk of experiencing some emotional discomfort as part of this research. If you have concerns with balance, please use a chair or a wall for extra support. Prior to engaging in the study, please make a note of a contact number you would ring if you needed any physical or emotional support and keep this handy. We hope you enjoy and benefit from the Sleep Improving Qigong practice