

Participant Information Sheet

Date that data collection will start:

1/08/2025

Project Title

The Effects of Yoga Nidra on the Nervous System and Sleep

Kia ora,

You are invited to participate in a research study on the effects of Yoga Nidra on sleep and the nervous system. This study is being conducted by PhD candidate and lead researcher Nisha Suresh from Auckland University of Technology (AUT). Other research team members include Dr Christian Thoma, Dr Mangor Pedersen, Dr Daniel Shepherd and Dr Imran Niazi. The study is being carried out as a requirement for PhD.

What is the purpose of this research?

This research is about understanding how Yoga Nidra, a form of guided relaxation, affects sleep in people who have mild-to-moderate sleep problems. We also aim to explore how Yoga Nidra affects the nervous system, mental wellness/taha hinengaro. By doing so, we aim to determine if Yoga Nidra may be beneficial. We plan to include around 36 adults with mild-to-moderate sleep problems.

This study is part of a PhD project at Auckland University of Technology (AUT). Your participation will contribute to improving knowledge about Yoga Nidra and its impact on sleep and mental health. The results of this research will be shared through academic publications, presentations, and talks/hui to help others understand the results.

How was I identified and why am I being invited to participate in this research?

You are being contacted because you responded to one of our advertisements.

To participate in the study, you must:

- Be between 18 and 60 years old.
- Experience mild-to-moderate sleep disturbances, such as difficulty falling asleep, trouble getting back to sleep after waking, waking up early despite sufficient time to sleep, and/or sleeping the recommended amount of time but waking up unrefreshed.

You cannot participate if you:

- Have been diagnosed with any long-term conditions such as cardiovascular disease, metabolic diseases (including diabetes), sleep apnea or other sleep disorders, respiratory condition other than well managed asthma.
- Have been diagnosed with a mental illness such as depression, anxiety, schizophrenia by a medical professional.
- Smoke tobacco or marijuana.
- Frequently consume alcohol more than twice a week.
- Are currently a regular practitioner of Yoga Nidra or other mind-body practices (e.g., mindfulness, meditation, Tai Chi) at least once per week.
- Are currently using medications or supplements to aid sleep or treat a chronic condition.

How do I agree to participate in this research?

You can withdraw from the study at any time by notifying the lead researcher (Nisha). You can do this via email/phone/in-person.

Your participation in this research is voluntary (it is your choice) and whether you choose to participate will neither advantage nor disadvantage you. You can withdraw from the study at any time by informing the Researcher. If you choose to withdraw from the study, then information collected up until your withdrawal from the study will continue to be used and included in the study to protect its quality / you can ask for information collected up until your withdrawal from the study to be deleted unless you withdraw after the study analyses have been undertaken.

What will my participation involve?

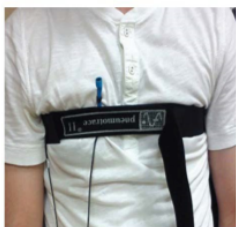
Volunteering for this study will involve an initial conversation with the lead researcher to go through a screening process via phone or email to make sure the study is right for you, and you are right for the study. Participation Information Sheet will be given to go through before the screening. This screening will involve answering some questions about your health history, mental wellness/taha hinengaro, and sleep, and answering a few questions about your experience with Yoga Nidra and similar practices. Consent form will be shared and consent will be taken by writing before the screening questionnaire.

If eligible, we will invite you for visit 1. During which we will take you through the Consent Form and Participation Information Sheet. Any questions regarding the Participation Information Sheet and the consent form will be discussed. You will be provided with Fitbit for the duration of your participation in the study. We will set up an anonymous account accessible via your smartphone to upload your data. The Fitbit will track your sleep for about a week before and then during the study. We will give you further instructions for wearing and charging it. During this visit, you will also be given 3 questionnaires to evaluate your self-reported sleep quality, sleep chronotype, and personality traits.

The second appointment will take place at the Auckland University of Technology (AUT) research lab at 90 Akoranga Drive, Northcote, for approximately 90 – 100 minutes. During this visit, you will be given 1 questionnaire to evaluate self-reported sleep quality and sleep satisfaction. After that, you will be guided through basic stretches like joint rotations, gentle spinal rotation, forward bend and light back bend, before being fitted with an EEG cap and some chest and finger electrodes/sensors (see photos below). The EEG cap measures brain activity, while the chest and finger electrodes/sensors assess breathing rate, heart rate, and other indicators of stress.

Participants will be divided randomly to either the Yoga Nidra group or the relaxation audio group. After sensors have been fitted, you will be instructed to lie down comfortably on a yoga mat/carpet/reclined chair and adjust yourself before starting the practice for 30-minutes.

If you are in Yoga Nidra group, there will be a Yoga Nidra recording that will be played and you will be asked to follow the instructions in the recording. The relaxation audio group will be listening to a relaxation audio and will be instructed to relax and try to avoid sleeping.



Respiratory belt



Finger clip sensors



Fitbit watch



EEG Cap



After the session, the sensors will be removed, and you will be given the Yoga Nidra (Yoga Nidra group) or relaxation audio recording used during the visit to practice daily for four weeks. Then we will ask you do the practice (listen to the Yoga Nidra or relaxation audio) daily for the next four weeks. We would like you to do it in a quiet space with minimal distractions at a comfortable temperature ideally just before you intend to go to sleep or after waking before you get up for the day.

After four weeks, you will return for your last visit, which will involve returning the Fitbit, repeating the assessments conducted during the second visit, along with two of the questionnaires from the second visit. At every visit, an opening and closing Karakia/prayer/ Śloka will be offered if you wish.

We will explain each step of the study in detail, and you can ask questions at any time.

Contact 1 – Via email/phone	Screening: <ul style="list-style-type: none"> Complete screening questionnaires: 30 minutes Verbal consent
Visit 1 in person (approx. 50 minutes)	<ul style="list-style-type: none"> Participant information sheet and consent form: 15 minutes Sleep and personality questionnaires: 25 minutes Fitbit set up: 10 minutes
Visit 2 to AUT lab (approx. 95 - 100 minutes)	<ul style="list-style-type: none"> Introduction and Karakia: 5 minutes Stretches: 5 minutes Questionnaires: 5 minutes EEG preparation and sensors setup: 45 minutes Yoga nidra or relaxation audio: 30 minutes Instructions for home practice of the study: 10 minutes
4 weeks of home practice	<ul style="list-style-type: none"> Yoga Nidra/ relaxation audio: 30 minutes, once a day for 4 weeks Continue wearing Fitbit for 4 weeks

Visit 3 to AUT lab (approx. 95 -100 minutes)	<ul style="list-style-type: none"> • Karakia: 5 minutes <ul style="list-style-type: none"> • Return Fitibt • Stretches: 5 minutes • Questionnaires: 5 minutes • EEG preparation and sensors setup: 45 minutes • Yoga nidra or relaxation audio: 30 minutes • Any questions/discussion: 10 minutes
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What are the benefits?

Difficulty sleeping/insomnia is closely linked to stress and an inability to relax. Yoga Nidra is a well-known relaxation technique. Spending time each day lying down and listening to relaxation audio may also have a relaxing effect. You may therefore benefit from a reduction in stress, and improvement in sleep or at least an increase in rest with all the benefits to wellbeing and performance that may bring.

If the study confirms that Yoga Nidra improves one or more aspects of sleep, then it may be adopted as a low/zero cost complimentary or alternative therapy for insomnia, which would benefit those with the condition. As inadequate quantity and quality of sleep are both common and detrimental to mental and physical health and performance, this could have positive effects for society more broadly.

At the end of the study, you will be provided with the Yoga Nidra recording and relaxation audio used in the study for your future use.

The benefit to the main researcher is that the study is a core part of her gaining a qualification that would then put her in strong position to do further research and/or helping people directly.

What are the costs?

The overall time commitment for the study is around six weeks start-to-finish. This will include three visits to the AUT Akoranga/North campus to collect data (see above). As well as the commitment of time, there might be travel/parking expenditure when participating in the study, but no other costs. You will receive a Koha in the form of a \$20 gift voucher at visits 2 and 3, as a token of appreciation and to help offset any costs of travel.

Will the results of the study be published?

The results of this research will be published in a Doctoral thesis. This thesis will be available to the general public through the AUT library. Results may be published in peer-reviewed, academic journals. Results will also be presented during conferences or seminars to wider professional and academic communities. You will not be identifiable in any publication.

What are the discomforts and risks?

- Applying the EEG cap involves the researchers touching your head, the application of a special gel at the point of each electrode, and gentle abrasion of the scalp, a little like exfoliating.
- There are no known risks with any of the equipment used in this study. The EEG caps and electrodes/sensors have been used safely in research and medical practice for decades.
- Yoga Nidra is generally considered a safe and low-risk practice when done correctly. Remaining in the Shavasana (lying) position for 30 minutes can cause discomfort or muscle stiffness if the posture is not adjusted for individual needs. Yoga Nidra often involves introspection and visualisation, it could be uncomfortable for some people.
- Guided visualisations or relaxation techniques may inadvertently trigger traumatic memories in individuals with a history of trauma. Some individuals might experience feelings of dissociation or detachment from reality during or after the practice, which can be uncomfortable. However, these responses are considered rare.

How will these discomforts and risks be alleviated?

The lead researcher of the study is a 500-hour certified Yoga Trainer and an 800-hour Yoga Therapist, and has delivered Yoga Nidra classes to more than 100 people. To ensure those people in any participants she will give you a brief history of Yoga Nidra during Visit 2.

AUT Student Counselling and Mental Health is able to offer three free sessions of confidential counselling support for adult participants in an AUT research project. These sessions are only available for issues that have arisen directly as a result of participation in the research and are not for other general counselling needs. To access these services, you will need to:

- drop into our centre at WB203 City Campus, email counselling@aut.ac.nz or call (09) 921 9292.
- let the receptionist know that you are a research participant and provide the title of my research and my name and contact details as given in this Information Sheet.

You can find out more information about AUT counsellors and counselling on <https://www.aut.ac.nz/student-life/student-support/counselling-and-mental-health>

Additional options if you are feeling distressed are:

- **Need to talk?** - Free call or text 1737 any time for support from a trained mental health and addiction professional (for issues such as depression, gambling and alcohol and/or drugs).
- **Lifeline** - 0800 54 33 54 to speak to a counsellor, available 24/7 (or free text HELP to 4357). www.lifeline.org.nz
- **Depression Helpline** - 0800 111 757 or text 4202. <https://depression.org.nz>

What compensation is available for injury?

In the unlikely event of a physical injury as a result of your participation in this study, rehabilitation and compensation for injury by accident may be available from the Accident Compensation Corporation, providing the incident details satisfy the requirements of the law and the Corporation's regulations.

What will happen to information about me?

During this study, the researchers will record information about you and your study participation. This includes the results of the questionnaires and other study assessments described above. You cannot take part in this study if you do not consent to the collection of this information.

Security and Storage of Your Information.

You have the right to privacy and confidentiality. Your information is held in two forms: 'identified' and 'de-identified'.

Identifiable Information

Identifiable information is any data that could identify you (e.g. your name, date of birth, or address). Only the lead researcher and her supervisor will have access to your identifiable information. The following groups may also have access to your identifiable information:

- Study supervisors, if needed for data analysis purpose, with your permission.
- Your usual doctor (if needed, with your permission) if a study test gives an unexpected result that could be important for your health or well-being. This allows appropriate follow-up to be arranged.

De-identified (Coded) Information

To make sure your personal information is kept confidential, information that identifies you will not be included in any report generated by the researchers. Instead, you will be identified by a code ('deidentified' information), and all data collected will be recorded next to this code rather than your name. The lead researcher will keep a list linking your code with your name, so that you can be identified by your coded data if needed.

The following groups may have access to your coded information:

- Supervisors and suitably trained and experienced study staff, to conduct the study.
- The New Zealand College of Chiropractic for data processing and analysis purpose.

- Your usual doctor (with your permission), in the event of an incidental finding of potential clinical significance. In this case, the de-identified data will be made identifiable.

The results of the study may be published or presented, but not in a form that would reasonably be expected to identify you.

Future Research Using Your Information.

If you agree on the consent form, your coded information may be used for future analysis in relation to stress and/or sleep. This research would be done in New Zealand to ensure the data could be maintained on New Zealand soil, but may be done by people other than the lead researcher and her supervisors, but only with agreement from at least one member of the current study team.

You will not be told when future research is undertaken using your information. Your information may also be added to information from other studies, to form much larger sets of data.

You will not get reports or other information about any future research that is done using your information if this happens. Your information may be used indefinitely for future research unless you withdraw your consent. However, it may be extremely difficult or impossible to access your information, or withdraw consent for its use, once your information has been shared for future research.

Security and Storage of Your Information.

> Any identifiable information will be stored by the lead researcher and locked in an office at AUT. After the study, it will remain stored in a locked cabinet in an AUT office for 10 years before being destroyed.

> Questionnaire data will be deidentified (use a numerical code not names or dates of birth) and uploaded by the lead researcher to an AUT secure drive in a folder restricted to the lead researcher and her supervisors.

> Electronic data such as brain, breathing, skin and heart signals will be stored and maintained by the researcher and supervisors in a password-protected computer for processing and analysis in a way that cannot identify you (by using a numerical code).

> Using the Fitbit will require you to enter your height, year of birth, and sex correctly, but for your name we will put a code, and for the date and month of birth, we will put January 1 of the correct year. This is the only data from this study that will be stored in the 'cloud' overseas due to Fitbit being from the USA.

> All coded study information will be kept by the lead researcher in secure drive for at least 10 years, then deleted. All storage will comply with local and/or international data security guidelines.

Risks.

Although efforts will be made to protect your privacy, absolute confidentiality of your information cannot be guaranteed. Even with coded and anonymised information, there is no guarantee that you cannot be identified. The risk of people accessing and misusing your information (e.g. making it harder for you to get or keep a job or health insurance) is currently very small, but may increase in the future as people find new ways of tracing information.

Rights to Access Your Information.

You have the right to request access to your information held by the research team. You also have the right to request that any information you disagree with is corrected. However, most of the data will be de-identified and grouped with other participants' data. If you have any questions about the collection and use of information about you, you should ask the lead researcher.

Rights to Withdraw Your Information.

You may withdraw your consent for the collection and use of your information at any time, by informing the lead researcher.

If you withdraw your consent, your study participation will end, and the study team will stop collecting information from you. You can request for your data to be deleted, or allow for it to continue to be used. If you withdraw your consent after the study is completed and data have been analysed and published, including as part of the lead researcher's thesis, it may no longer be possible to extract your data.

Māori data sovereignty

Māori data sovereignty is about protecting information or knowledge that is about (or comes from) Māori people. We recognise the taonga of the data collected for this study. The information from the participants

will be treated with respect and will be stored in Aotearoa, New Zealand, except for the Fitbit data, which will be stored overseas.

We have consulted with our advisor Dr Kevin (Kev) LT Roos (Saami/Ngāti Tōrangatira) Chief Science Officer of Kaiwhakahaere Rangahau Maaor, to devise the a management plan for the collected data.

What opportunity do I have to consider this invitation?

You can take up to 2 weeks to consider whether or not to take part. We invite you to talk to friends, family/whānau and anyone else about taking part.

Will I receive feedback on the results of this research?

I will send a summary of the research to you at the end of the study, if you request this. I will send you a copy of your individual results if you indicate this on the Consent Form.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, *Dr Christian Thoma* (christian.thoma@aut.ac.nz) 09 921 9999 extn 7989

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEK, ethics@aut.ac.nz, (+64) 9 921 9999 extn 6038.

Who do I contact for further information about this research?

Please keep this Information Sheet and a copy of the Consent Form for your future reference. You are also able to contact the research team as follows:

Researcher Contact Details:

Nisha Suresh

nwy4795@autuni.ac.nz

Project Supervisor Contact Details:

Dr Christian Thoma, Primary Supervisor at AUT

Christian.thoma@aut.ac.nz

09 921 9999 Extension 7989

For Māori cultural support please contact:

Dr K L T Roos (Matua Kev)

Saami, Ngaati Toarangatira

Kaiwhakahaere Rangahau Maaori

Chief Science Officer

kev@miruhau.com

Approved by the Auckland University of Technology Ethics Committee on *type the date final ethics approval was granted*, AUTEK Reference number *type the reference number*.