

Participant Information Sheet

Te Kukunetanga: Vitamin A in levels pregnancy



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Project Title

Te Kukunetanga: Developing Cycle of Life Research Programme

Project 7: Vitamin A levels in pregnancy

Project team

- Dr Heather Donald - AUT Lecturer
- Dr Hannah Wyatt - AUT Sports Performance Research Institute New Zealand (SPRINZ) Research Fellow
- William Huang – AUT Sport and Nutrition Student

An Invitation

My name is Heather Donald and I am an experienced midwife and passionate about the importance of health and healthy food in pregnancy and post pregnancy. Vitamin A intake through foods such as vegetables and fruit has important functions for health, including immune system responses. A suitable intake of vitamin A through eating a varied and balanced diet is important during pregnancy, however, we currently don't know how the transition through pregnancy may affect vitamin A levels in the body. Together with my colleagues, I would like to invite you to participate in a research project that will assess your intake of vegetables and fruit through a quick and easy measurement of the skin colour on your fingertip.

What is the purpose of this research?

By measuring the colour of your fingertip, we can determine your levels of vitamin A, which are found in vegetables and fruits. Therefore, the purpose of the research is to further understand how pregnancy influences vitamin A levels. With this information collected at monthly intervals throughout pregnancy and post-natal, we can better inform recommendations for vegetable and fruit intake during pregnancy, therefore advancing the current nutrition guidelines for New Zealand.

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

By accessing our website or responding to one of our adverts, you have been directed to this information sheet. We are seeking women aged between 18 and 40 years at any stage of pregnancy, or those who are currently trying to become pregnant. Participants will need to be able to visit the Te Kukunetanga rooms in the AUT Millennium Clinics at Antares Place on Auckland's North Shore at intervals throughout their pregnancy and in the 6 months post-natal.

Are there any women that cannot participate in this research?

- If you are under the age of 18 years and over the age of 40 years.
- If you have existing medical conditions and do not receive permission to participate from your doctor/midwife.
- Women who develop pregnancy-related complications may need to be withdrawn from the study but may re-enter when these complications subside.
- If you have been advised by your general practitioner not to participate for any health-related reason.

How do I agree to participate in this research?

We encourage you to read the information provided to learn more about the details of the study. You may also wish to consult with your whānau, lead maternity care midwife, GP or obstetrician (where appropriate). If you are keen to participate, you can indicate this by contacting us via phone or email on the details provided at the end of this information sheet. We will guide you through a series of questions to confirm your eligibility for this research before booking your first session. You will have the opportunity to ask any additional questions and then you will be asked to read a consent form (online) and indicate whether you choose to take part in the research.

This research is a sub-study of the Te Kūkūnetanga: Developing Cycle of Life Research Programme (www.sprinz.aut.ac.nz/tk). If you are enrolled in any other of the Te Kūkūnetanga research projects, you are invited to engage with the Vitamin A project alongside any other research projects.

Please note 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. If you choose to withdraw from the study, then you will be offered the choice between having any data that is identifiable as belonging to you removed or providing your permission for its continued use within this research study. However, once the findings have been produced, removal of your data may not be possible.

For Māori participants in these research studies, there may be cultural considerations associated with the collection and storing of your information. These considerations should be discussed with your family/whānau as appropriate, citing the protection of whakapapa. Controlling access to your data and limiting unauthorised use of your information are important questions that you may need to think about before consenting to the research. It is also acknowledged that people have the right to choose whether they participate or not in a research study. You may also like to think about the direct benefits that this research will have for yourself, your whānau and for Māori as a people. We advise participants to consult with their whānau prior to consenting to participate in a research study and suggest that your family/whānau are involved with you at all stages of the research.

What will happen in this research?

The data collection consists of a two-part process:

1. *Foods containing vitamin A online questionnaire*
 - A link will be sent at monthly intervals.
 - The questionnaire should take no more than 10 minutes to complete.
2. *Vitamin A reading via a veggie meter device*
 - You will be invited to book in for monthly visits to AUT Millennium (17 Antares Place, Rosedale, Auckland)
 - Data collection time will be approximately 5 minutes.

You will be invited to return for reassessment on a monthly basis until 6 months post birth.

Details of data collection – Vitamin A levels via a veggie meter device

The Veggie Meter uses the intensity of reflection of visible light from our fingertip. Some individuals might feel discomfort of the slight pressure when the finger is placed over the light as the cover is spring loaded – like a peg. Three measures of your skin colour will be undertaken and we will tell you if your score is low, medium, or high. Each measure takes approximately 10 seconds.



What are the benefits?

Each visit to AUT Millennium will give you an opportunity to learn how your vegetable and fruit intake (vitamin A amount) compares to what has been identified as healthy levels within the general population. You will receive a report after each session which will assist in the interpretation of the vitamin A reading. If you have low or high vitamin A levels, the researcher will be able to provide advice in accordance with Ministry of Health guidelines. Multiple readings of your vitamin A level at monthly intervals will allow you to track your vegetable and fruit intake throughout your pregnancy and in the 6 months post-natal. Your participation will help us to build an understanding of Vitamin A levels in pregnancy. This knowledge will help to provide up to date nutrition advice which we aim to disseminate to the New Zealand community.

What are the discomforts and risks and how will these be alleviated?

A light beam is used to collect a measurement of your vitamin A level which is not harmful to the body. There is a chance that a reading will be obtained that is not as you may expect, causing potential discomfort. If this is the case, the researcher will be on hand to discuss the findings with you and provide information to explain the vitamin A level reading. We will provide NZ resources developed by the Ministry of Health to guide any advice given in relation to your reading.

How will my privacy be protected?

Original raw information where you are identifiable will only be accessible to AUT researchers directly connected to this project. Throughout the data collection and analysis process all data will be stored on password-protected computers or in locked filing cabinets.

The raw data will be processed at AUT, and as part of this, the information will be coded to protect your privacy. We will de-identify your data using a unique code assigned to you upon entry to the study. You will be asked to enter this when completing the vitamin A questionnaire. If you are already enrolled in the Te Kūketanga research, you will be asked to use your unique ID code for this study (you will be reminded of this). If you are not involved in other projects within the Te Kūketanga programme of research, you will be provided with a unique ID code after consenting to the vitamin A project, which you will be asked to enter when completing vitamin A questionnaires.

Following the analysis of the data, all information obtained as part of the study will be placed in an AUT Ethics secure storage and will no longer be available to anyone other than Dr Heather Donald and Dr Hannah Wyatt and the Sport Performance Research Institute New Zealand (SPRINZ) ethics coordinator. The data will be stored for ten years, after the completion of the study, following which time it will be destroyed, unless you consent to its indefinite storage. Your de-identified data may be used to inform future research, including postgraduate theses.

What are the costs of participating in this research?

There are no monetary costs associated with participating in this study. Each visit to AUT Millennium for the vitamin A reading will take no more than 5 minutes. The online survey will take no more than 10 minutes to complete.

What opportunity do I have to consider this invitation?

You can join at any time you wish.

Will I receive feedback on the results of this research?

You will be provided with an opportunity of receiving a personal report of your vitamin A measurements. Your vitamin A level values from each session will be compiled within one document, therefore if you attend multiple sessions, you will receive a report showing the change in your vitamin A levels throughout your pregnancy and up to 6 months post-natal. Should you wish to receive the report, it will be emailed to you shortly after each session.

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 Heather Donald hdonald@aut.ac.nz 021 507 458

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEK, ethics@aut.ac.nz, (+649) 921 9999 ext 6038.

Whom do I contact for further information about this research?

This Information Sheet and a copy of the Project Consent Form will remain available online for your future reference. You can also contact the research team as follows:

Project researchers available daily for questions

Dr Hannah Wyatt hannah.wyatt@aut.ac.nz 027 556 6228

Dr Heather Donald hdonald@aut.ac.nz 021507458

Is there an opportunity to be part of the other Te Kukunetanga research projects?

We would like to extend the invitation for you to be involved in other projects developed by the AUT Te Kukunetanga research team. Within the participant consent form, you will be invited to indicate if you would like to receive information about these projects. We will ask if you consent to having your name, contact details and demographic details held on file by the primary researcher (for 10 years) for the purposes of being contacted with information on relevant Te Kukunetanga programme of research studies. If you do consent, we will send you the relevant information sheets with instructions about how to take part in the relevant research studies. Please note whether you choose to engage in other Te Kukunetanga research projects is entirely your choice and whether you choose to participate will neither advantage nor disadvantage you.

If at any point you would like to withdraw your permission to be contacted in the future, please contact Dr Hannah Wyatt at pep@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on 5th August 2022, AUTEK Reference 22/144.