



DATE

Dear **Athlete**,

Re: An exciting new research study “A 12-month Evaluation of key factors associated with female injuries in youth Netball Players (NET-FIT)”

Researchers within the Centre for Sport Research (CSR), the Institute of Physical Activity and Nutrition Research (IPAN) at Deakin University, and the Institute for Physical Health and Clinical Translation, in collaboration with the Barwon Sports Academy (BSA) are investigating the seasonal variations in biometric characteristics, sleep and/or dietary intake and their link with an increased incidence of specific injuries such as stress fractures in female youth netball players. The **NET-FIT study** will provide valuable information to help understand the main cause of injury in netball players over a 1- month training phase. This study will also provide increased knowledge of the implications for musculoskeletal health and injury risk in youth female netball players, informing future athlete services and support across BSA. Dr Dominique Condo and Dr Natalie Hyde from Deakin University are leading this study with full support of BSA.

We are inviting you to take part in the NET-FIT study, which involves three testing sessions over a 12-month period. Before participation we will ask you a series of questions with regards to your current health and diet to ensure you are able to participate in this study. We will request your consent to access your muscle strength and function results from your routine screening sessions through the BSA to gather information in regards to injury. In addition, we will ask you to attend three further sessions each lasting approximately 1 hour over the 12-month period (each 6-months apart). Testing will take place at Barwon Health (University Hospital, Geelong). In addition, at the first two testing sessions we will ask to collect a blood sample at any Australian Clinical Labs pathology service. Following the sessions at Barwon Health we will ask you to record the food and drink you consume over a seven-day period using the smartphone app, Easy Diet Diary as well as sleep using a wristwatch called Actical. During the visit we would like to assess your bone and muscle health with the following assessments:

1. **Body Composition and Bone health:** Bone health can be measured using Dual Energy X-ray Absorptiometry (DXA) a form of x-ray, which will provide an image of your total body (used to assess body composition), spine, both hips, and lower arm. You will be asked to lie still on a scanning bed while an image of the skeleton is taken by a trained female professional. Each scan takes about 1 to 2 minutes with the total body scan taking no more than 5 to 10 minutes. For these scans we ask that you wear clothing without metals and zips as this can affect the results of the scan. We will provide a gown for you to wear during the scan if this is not possible. A detailed scan of bone and muscle will also be taken at the lower leg using Peripheral Quantitative Computed Tomography. You will be asked to place your leg into the machine and hold still. The scan will take approximately 5 minutes.

In accordance with the Victorian Department of Health and Human Services and the ARPANSA code of Practice: “This research study involves exposure to a very small amount of radiation. As part of everyday living, everyone is exposed to naturally occurring background radiation and receives a dose of about 2 millisieverts (mSv) each year. The effective dose from this study is about 0.07 mSv. At this dose level, no harmful effects of radiation have been demonstrated as any effect is too small to measure. The risk is believed to be minimal.” If you have been involved in any other research studies that involve radiation, please inform us.

Please keep this Patient Information and Consent Form, which include information about the small exposure to radiation in this study, for at least five years. You will be required to provide this information to researchers of any future research studies involving exposure to radiation.

2. **Blood collection:** We will ask you to undergo blood collection at Australian Clinical Labs soon after the first two Barwon Health visits. Blood collected will be tested for markers related to bone and muscle health. The blood collection will be similar to a standard blood test and there may be some discomfort and slight bruising at the site of collection.
3. **Other assessments and measurements:** We will also measure your height, weight, waist, mid-arm and lower leg circumference and leg and arm length. All of these measurements are painless, quick and are routinely taken as a clinical measurement to assess injury risk in athletes.
4. **Additional muscle strength and function testing:** In addition to your yearly muscle strength and function testing we will ask you to complete these tests which will include the yo-yo test, the 20m sprint, the vertical jump and 5-0-5 agility test two further times across the 12 month period. These tests will be carried out in accordance with the Barwon Sports Academy. In addition to these tests we will ask you to complete a handgrip strength test at the Barwon Health visits.
5. **Athlete online survey:** We will ask you, to complete an online survey while you are at the testing session at Deakin University. The survey will ask you questions about your injury and medical history, eating and exercise behaviour, and sleep behaviours, and will take about approximately 30 minutes.

After the testing session at BSA we will ask you to complete further activities at home, which will be explained to you during the testing session:

1. **7 day food record:** Over a 7 day period we will ask you to record all the food and drink you consume using the smartphone application, Easy Diet Diary. We will ask you to record the type of food and the amount eaten at breakfast, lunch and dinner. If you do not have a compatible smart phone we will supply you with a paper record.
2. **Sleep habits:** Over a 7 day period we will ask you to wear an Actical wristwatch to bed that will assess sleep duration and quality. We will also ask you to keep a sleep diary every morning, recording bedtime, wake time and fatigue rating.

The NET-FIT study assessments and tests have also been explained in an easy to read brochure, which accompanies this letter, to help you decide if you would like to take part.

Upon completion of this 12-month NET-FIT study, you will receive a record of your monitoring over the three-sessions, which will include a report on your weight, height, body composition (fat and muscle) and bone health measurements as well as a report on your dietary patterns obtained from the 24-hour food recalls. With your consent, this information will be provided to the relevant personnel within BSA netball program at the completion of the study, for the purpose of improving athlete management. If you choose not to provide this information to BSA this will not affect your relationship with the academy.

All our staff involved in taking the body composition and bone measurements are trained and carry formal Deakin-related identification, and Barwon Health identification where relevant. All participant information will remain completely confidential and anonymous and will be used for research purposes only. The information you provide will be stored securely for a period of at least ten years at Deakin University or until the youngest participant turns 25 (whichever date is later), and then destroyed. Only those researchers working on this study will have access to the data, and identifiable consent forms will be stored separately to all other data collected. This is an important research study; however, you are under no obligation to take part and participation is completely voluntary. There is no obligation to take part in all aspects of the study and should you not wish to complete all measures you are still free to participate in other components the study. Choosing not to take part in this study in no way impacts your ability to take part in future research studies at Deakin University or your ongoing relationship with the Barwon Sports Academy. If you do agree to participate, you are free to withdraw at any time. You may access data collected about you at any time by contacting Dr Dominique Condo or the study team (contact details listed below).

The potential risks to you when participating in this study are small, but may include the following:

1. You may feel anxious when attending the testing session at for body composition assessment. This is a normal response. However, our research staff will try to reduce the anxiety and discomfort you may be feeling by explaining all testing procedures with you until you feel comfortable.
2. This research study involves exposure to a very small amount of radiation. However, as highlighted above the risk is believed to be minimal. To ensure we minimize any risk occurring prior to your child participating in this study we will ask you a series of questions to determine whether you have had any previous x-rays in the past 12 months. If there is a possibility that you may be pregnant you should not have the scans.
3. You may experience possible discomfort and/or bruising at the time of blood collection.

On the day of the study appointment we will run through these risks with you again and ask if you want to complete each measurement. If you don't wish to complete any measurement please make study staff aware of this and you will not have to complete it. You do not have to provide the reason for not wanting to participate in any of the measures.

We hope the benefits of this study may outweigh way the small potential risk. Athletes who participate in the study will receive information on their body composition, bone and dietary health, as well as the results from the blood tests. We recommend that you share these results with your regular general practitioner, and we will send them a copy with your consent. The overall results of the study will provide important information for health and medical research by providing a better understanding of the implications for musculoskeletal health and injury risk in female netballers informing future athlete services and support across BSA.

If you would like to take part in any, or all, components of the NET-FIT study, please complete the attached consent form and return it in the reply paid envelope as soon as possible. Please include your contact phone numbers and email address, so we may contact you to confirm whether you are eligible to participate, and to arrange a suitable appointment time at Deakin University.

If you have any questions regarding this study, or any concerns arising as a result of participating in this study, please feel free to contact myself on 03 9244 5487, or the NET-FIT Study team on email dominique.condo@deakin.edu.au.

Warm regards,

Dr Dominique Condo
NET-FIT Study Principal Investigator
Institute for Physical Activity and Nutrition
Deakin University
221 Burwood Highway
Burwood, 3125

Should you have any concerns about the conduct of this research project, please contact the Manager, Research Integrity, Research Services, Deakin University, 221 Burwood Highway, Burwood VIC 3125. Tel: (03) 9251 7129 (International +61 3 9251 7129). E-mail: research-ethics@deakin.edu.au.

Additionally you may also contact Barwon Health Research, Ethics, Governance and Integrity Unit. Please contact The Research Officer, HREC Barwon Health Research Office, (03) 42153372. If participation in this study has caused any distress or anxiety we recommend contacting the appropriate resources such as the Butterfly National Helpline (1800 33 4673 or online <https://butterfly.org.au/get-support/helpline/>).



WITHDRAWAL FORM

A 12-month Evaluation of key factors associated with female injuries in youth Netball Players (NET-FIT)

Please print your information below

Date:

I hereby wish to withdraw my consent to participate in the above research project and understand that such withdrawal will not jeopardise my relationship with Deakin University or Barwon Sports Academy.

I, _____ (first name) _____ (Last Name) (_____ (preferred first name))

Please return this form to Dominique Condo in person, mail or email (as per details below)

Dr Dominique Condo
School of Exercise and Nutrition Sciences
221 Burwood Highway
Burwood 3125, Victoria
(03) 9251 7309
dominique.condo@deakin.edu.au