

**PARTICIPANT INFORMATION STATEMENT**

<b>HREC Project Number:</b>	2023-0270
<b>Project Title:</b>	<i>Use of a Mobile Food Record in Athletes - Phase 1: Validity of the Technology Assisted Dietary Assessment (TADA™) System Relative to Observed Intake in Athletes</i>
<b>Chief Investigator:</b>	<i>Dr Kagan Ducker, Senior Lecturer</i>
<b>Student researcher:</b>	<i>Fabricio Forchino</i>
<b>Version Number:</b>	V3
<b>Version Date:</b>	02/06/2023

**What is the Project About?**

Having the right food is important for staying healthy and performing well in sports. Checking what athletes eat will help us know whether they consume enough energy and nutrients for their sport and create individual eating plans. However, traditional methods of dietary assessment, such as food diaries and 24-hour recalls, can be time-consuming and may not accurately capture an athlete's typical dietary intake.

The Technology Assisted Dietary Assessment (TADA™) system is a new technology that uses a smartphone application called the TADA mobile Food Record (mFR™) to take pictures of your food and help estimate how much you eat. We want to test if the system works well for athletes. This study will validate the TADA™ system for assessing energy intake in athletes for the first time.

**Who is doing the Research?**

A team of sports scientists and dietitians from both the School of Allied Health and the School of Population Health at Curtin University, Bentley, is conducting the project. The team comprises Dr Kagan Ducker (principal investigator), Dr Carly Brade, Professor Deborah Kerr, and Fabricio Forchino (Exercise and Sports Science PhD Student).

This research project is funded by Curtin University Higher Degree by Research program and supported by a Faculty of Health Sciences Strategic Scholarship.



### **Why am I being asked to take part and what will I have to do?**

You are being asked to participate because you are an athlete between 18 and 45 years, currently training and competing in a high training load sport (e.g., cycling, running, triathlon, rowing, and swimming) and meet our inclusion criteria: you train at least 3 times per week with the purpose to compete at a local level or higher in one of the mentioned sports. Also, you have access to a smartphone (Apple iOS or Android Operating System), and don't have current dietary restrictions (e.g., known food allergies) and known disordered eating.

If you decide to participate, you will first be asked to complete an online combined consent and participant screening form that you meet the participation requirements. You will access this via a web link provided to you by a research team member via email, QR code, social media, or from a flyer. If eligible, we will organise a date to attend the Curtin University Campus in Bentley, where you will complete a 1-day controlled feeding study.

On the testing day, you will attend the Curtin University School of Population Health Food Service Laboratory (building 400, room 111) three separate times to consume three meals ad libitum (breakfast, lunch, and dinner) on the same day (mealtimes to be negotiated). You will have a broad selection of items for breakfast, and there you will get to choose what you want to eat for lunch and dinner from a set menu. You will be allowed to leave the laboratory after each meal. Each visit will take approximately 30 - 45 minutes. No restrictions will be placed on consuming food and beverages outside of the laboratory meals. Before breakfast, you will be instructed on how to use the TADA mFR™ app. The TADA app will be installed on your mobile device (iPhone or Android smartphone). A quick summary is that you will take an image of your food and beverages before and after (capturing leftovers) consumption using the TADA mFR™ app. When taking an image, you will be instructed to include a fiducial marker (a checkerboard pattern of known shape, size, and colour) to assist with food identification and portion size estimation as per application instructions. The TADA mFR™ application on your phone will guide you on how to take the pictures from the right angles. Lastly, after each meal, you will be required to confirm the contents of the images using a “user confirmation” step, where you will select and label each image from the review function in the TADA mFR™ app. To label a food or beverage, you will tap on the item, and a pin will appear with tap to edit. Tapping the pin again will take you to the food list search function. If you cannot locate your food item in the list, typing food not listed will allow a free text entry. Once confirmed, the image with the confirmed pins is automatically sent to the server and disappears from the app.

The images collected by the TADA mFR™ app will feed the automated TADA™ system to assist with food identification and estimation of portion size. We will use nutrition analysis software (FoodWorks, Xyris Software, Brisbane, Australia) to manually assess your estimated energy and nutrient intake during the study. Then, we will compare this data to that the automated analysis completed by the TADA™ system to assess their agreement and try to validate the TADA™ system.



**Are there any benefits' to being in the research project?**

Whilst you will not be paid for participating in this project, there will be no costs to you.

There may be no direct benefit to you from participating in this research, however you will receive the results of your TADA mFR™ app if requested; for example, the energy intake consumed during the day may be of interest to you. Overall, this validation project will improve the accuracy of energy intake data collection in athletes while reducing the burden in the process. In the future, it might facilitate the capture of more frequent points of reliable nutrition intake data in free-living athletes, which will have applications for nutrition interventions and exercise performance optimisation.

**Are there any risks, side-effects, discomforts or inconveniences from being in the research project?**

You will be asked to self-report any history of eating disorder/disordered eating as part of the assessment inclusion criteria for this project. It may cause distress to those participants who may have or are experiencing disordered eating. You can contact the following services if you require support:

Curtin University Students

- University Counselling Services 08 9266 7850 or 1800 651 878 or email: <http://counselling.curtin.edu.au/> (Office hours only)

Curtin University Staff

- Assure Employee Assistance 1800 808 374

All Participants

- Beyond Blue 1300 22 4636
- Lifeline 13 11 14

You will not be able to participate if you have allergies, such as gluten, peanuts and tree nuts, as there may be risk of cross-contamination (i.e., when a small amount of a food allergen gets into another food accidentally during food preparation). Food and beverages will be provided by a third-party food service, and the research team cannot guarantee that it is 100% allergen-free.

COVID-19 remains a possible risk to you despite the relatively low risk of community transmission in Perth. Given the changing COVID environment, testing for this project will adhere to all current government and University guidelines as required. Please contact the research team and do not attend on-campus appointments if unwell or experiencing symptoms.



**Who will have access to my information?**

All personal information will be de-identified (coded). This means that the stored information will be re-identifiable, which means we will remove identifying information on any data and replace it with a code. Only the research team have access to the code to match your name if it is necessary to do so. Any information we collect will be treated as confidential and used only in this project unless otherwise specified. The following people will have access to the information we collect in this research: the research team and, in the event of an audit or investigation, staff from the Research Office at Curtin. All electronic information will be stored securely on Curtin University's backed up and password protected/encrypted research drive. All other information we collect in this study will be kept under secure conditions at Curtin University for 7 years after the research is completed and then it will be destroyed.

**Will you tell me the results of the research?**

We will share with you the individual results of your food record if requested. Additionally, we will write to you at the end of the research and let you know the findings of the research project if you are interested. These results will not be individualised but based on all the information we collect and review as part of the research.

The data may be published in international peer-reviewed journals or presented at conferences, however you will not be able to be individually identified in this data.

**Do I have to take part in the research project?**

Taking part in a research project is voluntary. It is your choice to take part or not. You do not have to agree if you do not want to. If you decide to take part and then change your mind, that is okay, you can withdraw from the project. You do not have to give us a reason; just tell us that you want to stop. If you choose not to take part, or start and then stop the study, it will not affect your relationship with the University. If you choose to leave the study, we will use any information collected unless you tell us not to.

**Who can I contact about the research?**

You can contact the following person to discuss this project.

Fabricio Forchino (PhD student)

EMAIL: [Fabricio.forchino@postgrad.curtin.edu.au](mailto:Fabricio.forchino@postgrad.curtin.edu.au)



Use of a Mobile Food Record in Athletes - Phase 1

Dr Kagan Ducker (chief investigator)

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If you decide to take part in this research, we will ask you to tick the "I consent to participate in this study" box on the online consent form. By doing this, it is telling us that you understand what you have read and what has been discussed. Signing the consent indicates that you agree to be in the research project and have your information used as described. Please take your time and ask any questions you have before you decide what to do. You will be provided a copy of this information and the consent form at the end of the survey and via email.

Curtin University Human Research Ethics Committee (HREC) has approved this study (HRE2023-0270). Should you wish to discuss the study with someone not directly involved, in particular, any matters concerning the conduct of the study or your rights as a participant, or you wish to make a confidential complaint, you may contact the Ethics Officer on (08) 9266 9223 or the Manager, Research Integrity on (08) 9266 7093 or email [hrec@curtin.edu.au](mailto:hrec@curtin.edu.au).