

2022

An investigation into the effects of weekly habitual and targeted caffeine consumption on adult runners' endurance, speed, and mood

Lucas, E.

Lucas, E. (2022) 'An investigation into the effects of weekly habitual and targeted caffeine consumption on adult runners' endurance, speed, and mood', The Plymouth Student Scientist, 15(2), pp. 488-505.

<http://hdl.handle.net/10026.1/20108>

University of Plymouth

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Investigating the association between caffeine consumption and weekly running habits in an adult population

Page 1: Participant information and consent

Name of the principal investigator: Elise May Lucas

The title of the project and topic of the research: Investigating the association between caffeine consumption and weekly running habits in an adult population.

I am a third year Nutrition, Exercise and Health student at Plymouth University and conducting this research as part of my final year project dissertation. The results from this survey will be used analysed anonymously as part of the scientific research needed to help me with my studies.

As someone who participates in running, you have shown an interest in the survey and have therefore been chosen to take part no matter how experienced you are at running.

You may stop the questionnaire at any time if you do not wish to be included and your data will be removed. However, once you have finished and submitted the questionnaire your data cannot be withdrawn as all answers are anonymous.

You will complete an online questionnaire about your general health, caffeine consumption (particularly caffeinated drinks) and running habits over the week prior to the survey. The running section of the questionnaire will involve you inputting data collected on any suitable tracking software you have to track basic running data like distance, calories burnt and speed. This may be a smartphone or smart watch for example.

The research is being conducted by the principle investigator Elise Lucas and is being supervised by the project supervisor Dr Kathy Redfern RNutr.

There are many benefits of taking part in the study including but not limited to:

- Helping to build on the current field of knowledge around caffeine and its influence on runners. This could really help further inform professional and recreational runners in the future.
- Understanding your own caffeine consumption and running habits over a weeks time period which especially beginner runners may not have thought of before.
- Helping to support a student led project as part of a degree programme. Taking part in studies helps provide the world with more professionals and help others live healthier lives.

Upon submitting the survey, your data will be randomised and stored securely in accordance to GDPR regulation. This means that your data will be totally anonymous. Data will be stored until completion of the project and then destroyed accordingly.

The project has been ethically approved by the Plymouth University Science and Engineering Research Ethics & Integrity Committee.

If you are dissatisfied with the way the research is conducted, please contact the principal investigator or project supervisor in the first instance:

Principle investigator: elise.lucas@students.plymouth.ac.uk

Project supervisor: kathy.redfern@plymouth.ac.uk

If you feel the problem has not been resolved please contact the secretary to the Faculty of Science and Engineering Human Ethics Committee: scienghumanethics@plymouth.ac.uk

Please read the following bullet points before signing the consent form. By signing, you agree to all these points:

- The objectives of this research have been explained to me.
- I understand that I am free to withdraw from the research, and ask for my data to be destroyed if I wish until after submitting my questionnaire. At this point the data will be anonymous and not possible to withdraw.
- I confirm that I am aged 18 or over.
- I confirm that I have a method of tracking my running activity (e.g. smart watch or health app on a smartphone such as Strava).
- I understand that my anonymity is guaranteed, unless I expressly state otherwise. All material from the questionnaire will be stored securely and treated confidentially by the investigator.
- I understand that the Principal Investigator of this work will have attempted, as far as possible, to avoid any risks, and that safety and health risks will have been separately assessed by appropriate authorities.

I. Under these conditions, I confirm I have read the above details and agree to participate in the study. * Required

☒ Yes - I give consent to take part in the study

Page 2: General participant information

2. What is your age? * Required

3. What best describes your gender? * Required

- ☐ Male
- ☐ Female
- ☐ Transgender female
- ☐ Transgender male
- ☐ Gender variant / non-conforming
- ☐ Other
- ☐ Prefer not to answer

3.a. If you selected Other, please specify:

4. What best describes your ethnic group? * Required

- ☐ White / Caucasian (Including any white ethnic groups)
- ☐ Mixed / multiple ethnic groups (Including any Mixed or multiple ethnic group)
- ☐ Asian (Including Asian British, Pakistani, Indian, Bangladeshi, Chinese or any Asian ethnic group)
- ☐ African (Including African, African British, African American or any other African ethnic group)
- ☐ Other ethnic group (Including Arab, Arab English, Caribbean and any other ethnic group)
- ☐ Prefer not to answer

5. What country do you currently live in? * Required

6. What is your height? * Required

Please enter a number.

6.a. Please specify the units of your measurement * Required

- ☐ Centimeters
- ☐ Inches

7. What is your weight? * Required

Please enter a number.

7.a. Please specify the units of your measurement * Required

- ☐ Kilograms
- ☐ Pounds

8. How would you describe your current employment status? * Required

- ☐ Employed full time
- ☐ Employed part time
- ☐ Self-employed
- ☐ Unemployed
- ☐ Full time student
- ☐ Part time student
- ☐ Student and working
- ☐ Retired
- ☐ Other
- ☐ Prefer not to answer

8.a. If you selected Other, please specify:

9. What is your smoking status? * Required

- ☐ Current smoker
- ☐ Ex-smoker
- ☐ Never smoked

10. Do you drink alcohol? * Required

- ☐ Yes
- ☐ No
- ☐ Prefer not to answer

10.a. If yes, how many drinks containing alcohol do you consume on an average day when drinking?

Please enter a whole number (integer).

11. Do you take part in running? * Required

- ☐ Yes, non-competitively / for leisure
- ☐ Yes, competitively
- ☐ No

11.a. If yes, what is your main motivation for running?

- ☐ General fitness
- ☐ To lose weight
- ☐ To learn a skill
- ☐ To reach a goal (e.g run a marathon)
- ☐ For mental health benefits
- ☐ Other
- ☐ Prefer not to answer

11.a.i. If you selected Other, please specify:

12. Do you regularly take part in any other exercise for leisure? * Required

Please select at least 1 answer(s).

- ☐ Walking
- ☐ Cycling
- ☐ Swimming
- ☐ Strength training
- ☐ No, I don't take part in any other exercise for leisure
- ☐ Other

12.a. If you selected Other, please specify:

13. Do you regularly take part in any other exercise competitively? * Required

Please select at least 1 answer(s).

- ☐ Walking
- ☐ Cycling
- ☐ Swimming
- ☐ Strength training
- ☐ No, I don't take part in any other exercise competitively
- ☐ Other

13.a. If you selected Other, please specify:

14. How would you describe your physical activity level? * Required

- ☐ Sedentary (Little to no activity)
- ☐ Lightly Active (Light activity spending some of the day standing or walking)
- ☐ Moderately Active (Moderate activity and spending most of the day standing or walking)
- ☐ Very Active (Strenuous activity and spending almost all day standing or walking)
- ☐ Prefer not to answer

Page 3: Caffeine consumption

Please answer the following questions about how much caffeine you have consumed over the last 7 days to the best of your memory.

15. On how many days did you consume caffeinated drinks this week (including coffee, tea, energy drinks, pre-workout drinks or soft drinks)? **Decaf drinks are not included here. You will be asked about these shortly.** * Required

- ☐ Never
- ☐ 1-2 days per week
- ☐ 3-4 days per week
- ☐ 5-6 days per week
- ☐ Everyday

15.a. If you did consume caffeinated drinks, how many of the following types of caffeinated coffee did you consume this week? Leave boxes blank if not applicable

	Made at home	Costa	Starbucks
Instant Coffee	<input type="text"/>	<input type="text"/>	<input type="text"/>
Filter Coffee	<input type="text"/>	<input type="text"/>	<input type="text"/>
Latte	<input type="text"/>	<input type="text"/>	<input type="text"/>
Cappuccino	<input type="text"/>	<input type="text"/>	<input type="text"/>
Americano	<input type="text"/>	<input type="text"/>	<input type="text"/>
Espresso	<input type="text"/>	<input type="text"/>	<input type="text"/>
Flat White	<input type="text"/>	<input type="text"/>	<input type="text"/>
Mocha	<input type="text"/>	<input type="text"/>	<input type="text"/>
Iced Coffee	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other	<input type="text"/>	<input type="text"/>	<input type="text"/>

15.b. How many of the following types of caffeinated tea did you consume this week? Leave blank if not applicable

	Quantity	Brand
Standard Tea	<input type="text"/>	<input type="text"/>
Earl Grey	<input type="text"/>	<input type="text"/>
Fruit Tea	<input type="text"/>	<input type="text"/>
Herbal Tea	<input type="text"/>	<input type="text"/>
Loose Tea	<input type="text"/>	<input type="text"/>

15.c. How many of the following other caffeinated drinks did you consume this week? Leave blank if not applicable

	Quantity	Brand	Number of mg of caffeine (if known)
Energy Drink	<input type="text"/>	<input type="text"/>	<input type="text"/>
Soft Drink	<input type="text"/>	<input type="text"/>	<input type="text"/>

Pre-Workout Drink			
Other			

16. On how many days did you consume Decaf drinks this week (including coffee, tea, energy drinks, pre-workout drinks or soft drinks)? * Required

- ☐ Never
☐ 1-2 days per week
☐ 3-4 days per week
☐ 5-6 days per week
☐ Everyday

16.a. If you did consume Decaf drinks, how many of the following types of Decaf coffee did you consume this week? Leave blank if not applicable

	Made at home	Costa	Starbucks
Decaf Instant Coffee			
Decaf Filter Coffee			
Decaf Latte			
Decaf Cappuccino			
Decaf Americano			
Decaf Espresso			
Decaf Flat White			
Decaf Mocha			
Other Decaf			

16.b. How many of the following other Decaf drinks did you consume this week? Leave blank if not applicable

	Quantity	Brand	Number of mg of caffeine (If known)
Decaf Tea			
Decaf Energy Drink			
Decaf Soft Drink			
Decaf Pre-Workout			
Other Decaf Drink			

16.c. Have you consumed any painkillers (such as paracetamol) which contain caffeine in the last 7 days? * Required

- ☐ Yes
☐ No

16.c.i. If yes, how many tablets, and which type of painkiller did you take?

16.d. Have you consumed any chocolate in the last 7 days? * Required

- ☐ Yes
☐ No

16.d.i. If yes, how much and what type of chocolate did you consume?

Page 4: Running habits

Please answer the following questions about your running activity over the last 7 days.

17. How long in years have you been regularly running? * Required

18. Do you time your caffeine consumption around your running sessions? * Required

- ☐ Yes, I consume caffeine within an hour before I run
- ☐ Yes, I consume caffeine within an hour after I run
- ☐ Yes, I consume caffeine in both the hour before and after a run
- ☐ No, I don't consume caffeine before or after I run

19. In the past week, how many running sessions have you had? * Required

20. What is the total distance you have covered during your runs in the last week? * Required

20.a. Please specify the units of measurement * Required

- ☐ Kilometers
- ☐ Miles

21. What was the distance of the longest run you completed this week? If you only completed 1 run you may use that data for that run. If you didn't complete a run, please leave this section blank. * Required

21.a. Please specify the units of measurement for these questions * Required

- ☐ Kilometers / km/h
- ☐ Miles / mph
- ☐ Min:km
- ☐ Min:mile

21.b. During this run, what was your average speed? Please use your specified units * Required

21.c. During this run, what was your maximum speed? Please use your specified units * Required

21.d. Did you consume caffeine within an hour before or after this run? * Required

- ☐ Yes, I consumed caffeine within an hour before the run
- ☐ Yes, I consumed caffeine within an hour after the run
- ☐ Yes, I consumed caffeine in both the hour before and after a run
- ☐ No, I didn't consume caffeine before or after the run

21.e. During this run, how motivated, energised, happy and focused did you feel and how much effort did you put in on a scale of 1-10 (10 being most motivated for example). * Required

Please don't select more than 1 answer(s) per row.

Please select at least 1 answer(s).

	1	2	3	4	5	6	7	8	9	10
Motivated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energised	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Happy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Focused	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Effort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

21.f. Do you take any other forms of caffeine that are relevant? If so which ones?

22. What was the distance of the shortest run you completed this week? If you only completed 1 run or no runs please leave this section blank.
Optional

22.a. Please specify the units of measurement for these questions Optional

- ☐ Kilometers / km/h
- ☐ Miles / mph
- ☐ Min:km
- ☐ Min:mile

22.b. During this run, what was your average speed? Please use your specified units. Optional

22.c. During this run, what was your maximum speed? Please use your specified units. Optional

22.d. Did you consume caffeine within an hour before or after this run? Optional

- ☐ Yes, I consumed caffeine within an hour before the run
- ☐ Yes, I consumed caffeine within an hour after the run
- ☐ Yes, I consumed caffeine in both the hour before and after a run
- ☐ No, I didn't consume caffeine before or after the run

22.e. During this run, how motivated, energised, happy and focused did you feel and how much effort did you put in on a scale of 1-10 (10 being most motivated for example). Optional

Please don't select more than 1 answer(s) per row.

Please select at least 1 answer(s).

	1	2	3	4	5	6	7	8	9	10
Motivated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energised	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Happy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Focused	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Effort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 5: Final page

Thank you so much for taking the time to complete this survey.

It is invaluable for helping support the research needed for my final year project. I hope taking part may have sparked an interest of how caffeine impacts your running habits.