

Participant Information Sheet

Research Integrity

The University adheres to its responsibility to promote and support the highest standard of rigour and integrity in all aspects of research; observing the appropriate ethical, legal and professional frameworks. The University is committed to preserving your dignity, rights, safety and wellbeing and as such it is a mandatory requirement of the University that formal ethical approval, from the appropriate Research Ethics Committee, is granted before research with human participants, human data, human material, personal and/or sensitive data, or non-human animal commences. The purpose of this Participant Information Sheet is to provide you with the information that you need to consider in deciding whether to participate in this research project.

Title of research project: Investigating the Effects of Collagen Supplements on Firefighters

Principal Investigator/Director of Studies

Name(s): Lee Brown

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Researcher

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Researcher

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In compliance with the General Data Protection Regulation (GDPR) the University's lawful basis for the processing of personal data collected, used and retained for research purposes is the 'public task' condition. Therefore, the University does not rely on consent to process your personal data. However, the University will seek your consent to participate in this research project. Please see the following link for more information: [Data protection – University of East London \(UEL\)](#)

Location

Sports Dock lab SD2.06a

Aims and methodology

You are being invited to take part in a research study exploring whether daily collagen supplementation can reduce pain, improve recovery, and support musculoskeletal health in active firefighters. Firefighting involves intense physical demands, heat, and smoke exposure, which can cause inflammation, soreness, and joint pain. Despite these challenges, there is limited research on nutritional strategies that might help you recover better and maintain your health and performance.

This study will follow you over 12 weeks to compare the effects of collagen supplementation with no supplementation. By taking part, you can help us understand whether collagen supports pain reduction, recovery, and long-term readiness for your role.

Methods

This study will use a 12-week randomised controlled trial (RCT) design to assess the effects of daily collagen supplementation on musculoskeletal pain in firefighters. You will be recruited from operational fire stations in the Kent Fire and Rescue Service, representing both male and female firefighters engaged in frontline duties.

Recruitment and Sampling

We aim to recruit 50–60 firefighters to ensure sufficient statistical power (allowing for attrition). Inclusion criteria are active operational firefighters aged 18–55 years. Exclusion criteria include pre-existing musculoskeletal disorders requiring medical treatment and current use of collagen supplements. After providing informed consent, You will be randomly assigned to either a collagen supplementation group (10 g daily with breakfast) or a control group (no supplementation).

Intervention and Data Collection

The intervention group will receive a standardised, commercially available collagen supplement. Compliance will be monitored through weekly check-ins and supplement logs. Pain will be assessed using (1) algometry to measure pain thresholds at specified muscle groups, and (2) validated questionnaires (e.g., KOOS, adapted for occupational demands). Assessments will take place at baseline, six weeks, and twelve weeks, at times of day identified as most relevant by You (morning or evening). Workload data will be collected from service records (incident logs, shift patterns) and self-reported activity diaries to account for operational exposure.

Data Analysis

Descriptive and inferential statistics will be used. Group differences will be tested with repeated-measures ANOVA, accounting for baseline covariates such as age, sex, and workload exposure. Effect sizes (Cohen's *d*) will be reported to aid interpretation. Correlation and regression analyses will explore relationships between pain and workload. Intention-to-treat principles will be applied to handle missing data, with sensitivity analyses performed to test robustness.

Ethics and Feasibility

All procedures will follow ethical guidelines and be approved by the relevant university and health research ethics committees. Risks to you are minimal, with algometry being non-invasive and widely used. The 12-week design is compatible with firefighter schedules and consistent with prior occupational intervention studies.

Summary

This RCT combines objective (algometry) and subjective (questionnaires, workload logs) measures to evaluate the impact of collagen supplementation on firefighter pain. It will provide practical, evidence-based insight into nutritional strategies that may support firefighter health, reduce injury risk, and improve performance sustainability.

Risk

The project involves minimal risk to you and researchers. Pain assessment with an algometer applies controlled pressure to muscles, which may cause temporary discomfort but no lasting harm. You will be informed beforehand and may withdraw at any time. Psychological risk is minimal, though some individuals may feel anxious about the assessments. This will be addressed by providing clear explanations, reassurance, and the option to pause or stop participation. There is no foreseeable risk of offence, as the study procedures are routine and non-invasive. Overall, the risk is considered low and proportionate to the anticipated benefits of the research.

Confidentiality and anonymisation

Where possible, participants' confidentiality will be maintained unless a disclosure is made that indicates that the participant or someone else is at serious risk of harm. Such disclosures may be reported to the relevant authority.

You will be pseudonymised at source.

The samples and data are de-identified.

You will be pseudonymised in publications that arise from the research.

Data security

The data generated during the research will be retained in accordance with the University's Data Protection Policy.

In compliance with the General Data Protection Regulation (GDPR) the University's lawful basis for the processing of personal data collected, used and retained for research purposes is the 'public task' condition, GDPR Article 6 (1) (e). Therefore, the University does not rely on consent to process your personal data. However, the University will seek your consent to participate in this research project. Please see the following link for more information: [Data protection – University of East London \(UEL\)](#)

Dissemination

Dissertation / Thesis, Peer reviewed journal

Confidentiality of the Data

All you will be coded from 1-20, the data sheet that identifies the You (by first name only) will be kept on the researcher's (Lee Brown) OneDrive only. The students will not have access to names of the you of the study or any personal or sensitive data. The data will be deleted after six months or after publication should it be before that timeline.

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Disclaimer

Your participation in this research project is voluntary and you are free to withdraw at any time during the research. Should you choose to withdraw from the research project you may do so without disadvantage to yourself and without any obligation to give a reason.

Please note, that your data can be withdrawn up to the point of data analysis, however after this point it may not be possible if the data is pseudonymised.

If you have any concerns regarding the conduct of the research in which you are being asked to participate, please contact:

Catherine Hitchens, Ethics, Integrity and Compliance Manager Office for
Postgraduates, Research and Engagement
University of East London, Docklands Campus, London, E16 2RD Telephone: 020

8223 6683. Email: researchethics@uel.ac.uk.

For general enquiries about the research project, please contact the Principal Investigator on the contact details at the top of this sheet.

Consent Form

Please tick as appropriate:

	YES	NO
I have read the Participant Information Sheet relating to the above research project in which I have been asked to participate and I have been given a copy to keep. The nature and purposes of the research project have been explained to me, and I have had the opportunity to discuss the details and ask questions about this information. I understand what is being proposed and the procedures in which I will be involved have been explained to me.		
I understand that my involvement in this project, and particular data from this research, will remain strictly confidential as far as possible. Only the researchers involved in the research project and will have access to the identifiable data.		
I understand that maintaining strict confidentiality is subject to limitations if the sample size is small or focus groups are used and that this may have implications for confidentiality/anonymity.		
Where possible, participants' confidentiality will be maintained unless a disclosure is made that indicates that the participant or someone else is at serious risk of harm. I accept that such disclosures may be reported to the relevant authority.		
I will be pseudonymised in publications that arise from the research. I give my permission for pseudonymised quotes from my responses to be used in publications resulting from the project.		
The results will be disseminated. Peer reviewed journal		
I understand that the data collected for the research project will be pseudonymised/pseudonymised before it is published.		
I understand that the University's lawful basis for processing my personal data collected, used and retained for research purposes is the 'public task' condition and the University does not rely on consent to process my personal data.		
I understand that the published results of the research project will be accessible in the public domain and may be deposited in an open access data repository.		
I understand that the published results of the research project will be accessible in the public domain and may be re-used, republished or reanalysed by others in future research.		
I give my permission for the research team to use the data that I have provided in future research projects which may be made publicly available.		

I give my permission for the research team to retain my personal contact details and contact me regarding participation in future research projects.		
It has been explained to me what will happen once the research project has been completed.		
I understand that my participation in this research project is entirely voluntary, and I am free to withdraw at any time during the research without disadvantage to myself and without being obliged to give a reason. I understand that my data can be withdrawn up to the point of data analysis, and that after this point it may not be possible if the data is pseudonymized.		
I hereby freely and fully consent to participate in the research project which has been fully explained to me and for the information obtained to be used in relevant research publications which are publicly available.		

Participant's Name (BLOCK CAPITALS)

Participant's Signature

Investigator's Name (BLOCK CAPITALS)

Investigator's Signature

Date:

Ethics and Integrity Sub-Committee Privacy Notice

The University of East London adheres to Data Protection Act 2018 (DPA) and UK General Data Protection Regulation (GDPR) 2018.

UK GDPR states that personal data is any information that can be used to identify a living person directly or as result of combinations of data relating to or being about a person. As a participant in a research project the University has a responsibility to inform you how we are collecting, using and managing your personal data. Fully pseudonymised data is not governed by UK GDPR, however data that has had identifiers removed or replaced to pseudonymise the data is classed as personal data for the purposes of UK GDPR.

The Data Protection Act 2018 is based around seven principles which give people specific rights in relation to their personal information and place certain obligations on those organisations that are responsible for processing the information. The principles govern the collection, use, retention, transfer, disclosure and destruction of personal data. These principles are followed by the University of East London when processing personal data:

- **Lawfulness, Fairness and Transparency** – Personal data shall be processed lawfully, fairly and in a transparent manner.

- **Purpose Limitation** – Personal data shall be collected for specified, explicit and legitimate purposes and not used for other purposes where such use would be incompatible with the initial purpose.
- **Data minimisation** – Personal data shall be adequate, relevant and limited to what is necessary for the purpose it was collected.
- **Accuracy** – Personal data shall be accurate and, where necessary, kept up to date.
- **Storage Limitation** – Personal data shall be kept in a form which permits identification of data subjects for no longer than is necessary.
- **Integrity & Confidentiality** – Personal data shall be processed in a manner that ensures appropriate securing including protection against unauthorised or unlawful processing, and against accidental loss, destruction or damage to that data.
- **Accountability** – The University must be able to demonstrate how we comply with the law by ensuring that we have documented process, procedures and policies in place.

Further guidance on data protection can be found on the University's website: [Data Protection | University of East London \(uel.ac.uk\)](https://www.uel.ac.uk/data-protection/)

Information Rights

Every participant in a research project has rights associated with how their personal data is used and managed. Where an individual makes a request related to any of their information rights the University will consider each request in accordance with all applicable laws and regulations.

The Data Protection Act 2018 gives you more control over your personal data by strengthening your information rights. These are:

- The right to be informed.
- The right of access.
- The right to rectification.
- The right to erasure (aka. The right to be forgotten).
- The right to restrict processing.
- The right to data portability.
- The right to object.
- Rights in relation to automated decision making and profiling.

More information about each of these rights is provided on the Information Commissioner's Office website: [Home | ICO](https://ico.org.uk/)

You can submit an Information Rights request to the University quickly, easily and free of charge by completing an [Information Rights Request form](#) and emailing the form to dpo@uel.ac.uk.

Should you have any concerns about the conduct of the research project or management of your personal data please contact the Ethics, Integrity and Compliance Manager, Catherine Hitchens: researchethics@uel.ac.uk or the Data Protection Officer, Jordan Hall: dpo@uel.ac.uk