

Keeping cool and calm in the heat: The development of evidence-based recovery strategies for optimised performance and safety in operational firefighters

ACTRN12620001314910

Status	RECRUITING
Sponsor	University of Technology Sydney
Enrollment	17 participants

Plain Language Summary

Firefighting is physically and mentally demanding work — especially in extreme heat. After responding to a fire, firefighters need to recover quickly so they can perform safely again if needed. But what is the best way to recover after working in the heat? Currently, different fire services use different recovery methods, without strong scientific evidence to guide them.

This study, run in partnership with Fire and Rescue NSW, is testing different recovery strategies for firefighters after intense heat exposure. Researchers will measure how well firefighters physically and mentally bounce back using tests of strength, reaction time, and cognitive performance.

If you are a firefighter employed by Fire and Rescue NSW, aged 18–65, are physically active (at least 30 minutes of moderate aerobic exercise at least 3 days per week), a non-smoker, and have no history of heart, kidney, or metabolic disease, you may be eligible. The study involves wearing a small temperature-monitoring capsule and completing physical and mental tasks in a controlled setting. The aim is to help develop evidence-based recovery guidelines that protect the health of firefighters across NSW.

Key Eligibility Criteria

Inclusion (8)

- The selection pool of participants are all firefighters employed by FRNSW. To be considered healthy, participants cannot be current or recent (<6 months) smokers, and those with any history of cardiovascular, renal, musculoskeletal, or metabolic diseases will be excluded. Health history will be collected using questionnaires (American College of Sports Medicine Pre-Participation Screening) to assess for eligibility. To be included, and ensure completion of the exercise protocol, participants must be physically active, which is defined, in accordance with ACSM, as regularly engaging in a minimum of 30 minutes of moderate intensity aerobic activity at least 3 days a week. Participants will also complete a Par-Q Questionnaire to prove their health (no risks to cardiovascular health, heat illness or other contraindications). Further, since core temperature will be monitored using a telemetry pill, participants will complete a screening form, and any participant with contraindications to telemetry pill use will be excluded from the study.
 - Sex: M/F
 - Age range: 18-65y
 - Weight: any
 - Height: any
- ... and 3 more (see full listing online)

Locations (1 total)

NSW, Australia

<https://www.anzctr.org.au/Trial/Registration/TrialReview.aspx?ACTRN=ACTRN12620001314910>

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