

To: Heads of Department/Section, Executive Deans,
HSLOs and DHSOs, Faculty Managers

For Information &
Action

Northumbria University Prosecution

A recent prosecution of a University for a health and safety offence has highlighted the importance of having robust procedures where experiments could put people at risk.

Northumbria University was fined £400,000¹, following an incident where two students were admitted to intensive care after mistakenly ingesting a dangerous quantity of caffeine. The researcher had provided them with 30g of caffeine rather than the correct 0.3g during a sports science experiment to measure the effects of caffeine on the body. A mistake had been made with the calculation, with the decimal point being put in the wrong place, leading to an overdose equivalent to 300 cups of coffee. Both students recovered but the prosecution stated that the result “could easily have been fatal” as death has been known to occur after ingestion of only 15g of caffeine.

The prosecution was successful because the risk from caffeine experimentation was foreseeable and had been recognised by the university. However it did not follow the strict procedures that it had put in place for the experimental work. The procedures had specified that 200mg tablets should be used and that no more than 3 should be given, but when these were not available, caffeine powder had been substituted. There was no suitable and sufficient risk assessment for the activity. The technicians had not double-checked the students’ calculations and were described by the prosecution as not having had enough “information, instruction or training” to supervise experimentation on human subjects.

Who needs to take action?

Managers, principal investigators and academic supervisors are responsible for ensuring that, where experiments pose a potential risk to participants or researchers:

- There are clear, robust protocols in place, supported by suitable risk assessment
- Participants and staff supervising the activities are trained and fully aware of the risks and controls
- Regular monitoring and review takes place.
- If it becomes necessary to change an experimental procedure, the risk assessment and protocols are revised accordingly and instruction in the new procedure provided.

It is recommended that risk assessments and protocols for experiments involving human participants are reviewed in the light of this incident. This will be an opportunity to record risk assessments onto the new University [risk assessment template](#), which is necessary to ensure that the risk assessment are of an appropriate standard to meet legal requirements.

Advice and support

If you need help with your risk assessment review, please contact the Health and Safety Advisory Service (safety@essex.ac.uk) for advice and support.

¹ See: [University's caffeine experiment miscalculation almost killed two students](#)