



UCL STUDY OF AIR POLLUTION, PHYSICAL ACTIVITY, AND DAY-TO-DAY HEART HEALTH

This study has been approved by the UCL Research Ethics Committee: ethics approval ID 28517/001.

What is the purpose of the study?

Air pollution is linked to cardiovascular diseases like heart disease and stroke, while physical activity and good sleep can reduce risk of these diseases. Personal air quality monitors used with activity trackers to monitor physical activity, sleep, and heart rate could offer better insights into how pollution affects daily heart health. This study explores whether it is practical to use these devices together to examine relationships between air pollution, physical activity, sleep, and daily heart health.

Who can take part?

In order to take part in this study, you must be: 1) aged 50 years and older; 2) able to walk around either with or without a walking aid (e.g., a stick or frame); 3) able to access to a smartphone and be comfortable using it; and 4) fluent in English.

What would I have to do to take part?

- Wear a wrist-worn accelerometer continuously (i.e., 24 hours per day) and a personal air quality monitor during waking hours for one five-day wear period
- Complete brief daily questionnaires about your health, lifestyle, feelings, and behaviours, and experiences with wearing the devices

What would you get for taking part?

- A summary report about your physical activity, sleep, and exposure to air pollutants.
- A £30 Amazon voucher after completing the wear period
- You would also be helping researchers to better understand relationships between air pollution, physical activity, sleep, and daily heart function

Who should I contact if I am interested in taking part?

Please email the study team at air-pollution-study@ucl.ac.uk.