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## Monitoring the extent of vertical and lateral movement of human decomposition products through sediment using cholesterol as a biomarker

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### Highlights

- Movement of human remains through the underlying soil and sediment were monitored.
- Vertical leaching was detected up to a depth of 49 cm below the ground surface.
- The greatest extent of vertical penetration was found directly beneath the torso.
- Lateral leaching was detected 2.5 m from the torso centre; distance may be further.
- Methodology and data can be applied to environmental monitoring and forensic casework.

### Abstract

Due to the lack of human decomposition research facilities available in different geographical regions, the extent of movement of human decomposition products from a cadaver into various sedimentary environments, in different climates, has not been able to be studied in detail. In our study, a human cadaver was placed on the surface of a designated plot at the Australian Facility for Taphonomic Experimental Research (AFTER), the only human decomposition facility in Australia,

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