

Case study - Toenails

Retrospective monitoring of long-term recreational and dependent cocaine use in toenail clippings/scrapings as an alternative to hair.

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Overview

- **Keywords:** Abstinence, nails, contamination, LC-MS/MS, norcocaine, cocaine, cocaethylene, benzoylecgonine
- **Aim of the study:** Retrospective monitoring of cocaine consumption of recreational and dependent users
- **Application:** Cocaine and metabolites analyses by LC-MS/MS
- **Sample name:** Toenails
- **Material:** FastPrep-24™ Homogenizer, 2 ml Lysing Matrix S tubes containing metal beads

Protocol and Parameters

1. Nail clippings were washed twice with 1 ml of water and acetone, respectively, by vortexing for 30s.
2. They were cut into snippets and approximately 5 mg were weighed into Lysing Matrix Tubes containing metal beads for pulverization at 5.5 m/s (8-times for 60s) by a FastPrep-24™ homogenizer.

Conclusion

- Toenails may be an alternative for retrospective monitoring of cocaine consumption/abstinence.

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