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## E1 Use of Earprints as Evidence in Spain

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After attending this presentation, attendees will be familiar with the concept of earprint and earmark evidence used by the Spanish Cuerpo Nacional de Policia (CNP), with how this evidence is collected and classified by technicians, and with how it is used as evidence in criminal courts.<sup>1</sup>

This presentation will impact the forensic science community by implementing new ways to use earprints, applying a scientific method to classify them, showing the problems associated with the use of this technique, and pointing out the advantages that have helped police department investigations.

While numerous studies have looked into the various parts of the ear to classify earprints, the CNP uses a pattern to measure different parts of an earmark found at a crime scene, then records it in the database. With this classification, earprints obtained in the laboratory or earmarks found at other crime scenes can be compared. This comparison helps investigators eliminate suspects or open new investigative paths. There are open research areas that are attempting to demonstrate this technique's validity and statistical research has been performed to evaluate its accuracy.<sup>2,3</sup>

This study demonstrates the pattern and how the technician uses it to obtain different points for measuring the earmark/earprint. The formula obtained will have five numerical values and one non-numerical value. With this formula, classification will indicate if the earmark or earprint was from a right or left ear.

Judicial sentences from Spanish criminal courts from 2000 to 2013 were studied and it was determined that earprints have been admitted as circumstantial evidence. Circumstantial evidence has been delineated by Spanish Supreme and Constitutional court jurisprudence and this evidence must meet this criteria in order to be effective. The cases where earprints were involved came primarily from CNP burglary investigations. Credible, reliable testimony from a forensic expert in a criminal case is essential and in the studied cases, the CNP experts proved the suspect was in/at the crime scene and that the earmarks left there, after comparison with earprints taken at the police laboratory, were from one of his/her ears. Another goal of this research is to discover if this evidence is legitimate for the Spanish courts or deemed as unreliable evidence.

The opinions or assertions contained herein are the private view of the author and are not to be construed as official or as reflecting the views of the Spanish Ministry of the Interior or Spanish Cuerpo Nacional de Policia.

### References:

1. Champod C, Evett IW, Kuchler B. Earmarks as evidence: a critical review. *J Forensic Sci* 2001;46:1275-1284.
  2. Lopez-Gobernado CJ. Estudio estadístico del método de clasificación de otogramas. *Boletin Criminologico* 2012;140.
  3. Lopez-Gobernado CJ. Los otogramas como prueba pericial en el proceso penal español. *Ciencia Policial*. 2011;107: 7-38.
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### Earprint, Evidence, Classification