

# Extraction of DNA from Human Remains

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**REFERENCE:** Stray JE, Shewale JG: Extraction of DNA from human remains; *Forensic Sci Rev* 22:177; 2010.

**ABSTRACT:** Improvements to analytical methods have made it possible for highly discriminative genotypic information to be gleaned from smaller and smaller amounts of sample material. This fact makes it practical to genotype samples or remains consisting of bone and tooth—samples that likely would not have yielded interpretable genotypic results a short time ago. In parallel, there have been improvements to protocols specifically designed to recover DNA from very old calcified tissues, i.e., ancient or compromised nature. This review discusses the current best practices for isolating and purifying DNA from bones and teeth with a focus on the processes of lysis and DNA purification linked together to yield DNA from these challenging samples. The mitochondrial and genomic DNA recovered from more recently developed techniques for isolation from skeletal remains and teeth, even very old samples, is surprisingly amenable to genotypic analysis.

**KEY WORDS:** Ancient DNA, DNA extraction, DNA isolation, human identification, human remains, missing persons, mitochondrial DNA sequencing, STR profiling.

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