

# Determination of Race from the Skeleton through Forensic Anthropological Methods

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**REFERENCE:** Church MS: Determination of race from the skeleton through forensic anthropological methods; *Forensic Sci Rev* 7:1; 1995.

**ABSTRACT:** Metric and morphological techniques employed by forensic anthropologists for determination of race are reviewed. Included are several studies which examine cranial morphological techniques such as presence of the oval window of the inner ear, which occurs more frequently in Whites than in Native Americans; or the shape of the alveolar region which distinguishes between Asian, African, and North American Indian groups. A table of common cranial morphologic traits is presented.

Metric techniques have also been used to determine race from the skull. Regression equations derived from measurements of the cranial base indicate a 70–90% accuracy for classifying Blacks and Whites, while multivariate discriminant functions for discriminating Blacks, Whites, and Native Americans correctly classify 82.6% of the males and 88.1% of the females. FORDISC, a computer program developed at the University of Tennessee, is another metric technique reviewed that not only distinguishes Whites, Blacks, and Native Americans but also male Hispanics, Chinese, and Vietnamese.

Platycnemia, femoral curvature and other morphological attributes of the post-cranial skeleton may be used in support of a racial determination; however, several investigators have turned to post-cranial elements not only to use in support of cranial findings but for use when cranial information is not available. As a result, several discriminant functions from measurements of the pelvis, femur, tibia or combinations of these elements have been developed. Accuracy for these techniques varies from 57% to 95%, depending on the sample and technique used. Other aspects of the femur, such as the diameter of the neck, height of the intercondylar notch and femoral curvature, have been measured for assessment of race.

Also included is a brief historical survey of race and current thoughts on the concept of race.

**KEYWORDS:** Forensic anthropology, metric analysis, morphological analysis, race determination.

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