# VARIATION IN THE POSITION OF THE MANDIBULAR STRUCTURES OF HUMAN SKULLS

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The mandibular foramen is a hole on the medial surface of the lower jaw of humans, through which the inferior alveolar nerve passes. This nerve is targeted when anesthetizing the lower jaw, as required in many dental procedures. Our research investigated variability in the position of the mandibular foramen in male and female populations of Native American skulls. Sixty eight skulls from the Texas Archeological Research Laboratory collection in Austin, TX were digitally photographed and analyzed in a double blind study. While a significant difference was not identified in the ramus flexure ($p=0.595$), a significant difference in the condyle to coronoid process, ramus length, and position of the foramen among all groups ($p<0.01$) was identified in normalized data. This has great clinical relevance as it may result in variable treatment and positioning of anesthesia needles in patients of different races. It also provides insight into the morphological differences in various populations.