

# Morphometric measurements of the calcaneus bone and types of talar articular facets

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**Objective:** Calcaneus is the largest of the tarsal bones. When the joint surfaces on the upper surface of the Calcaneus joint with the talus's body the joint surface on the front surface is jointed with cuboidea. We aim that define the joint surfaces of calcaneus with obtained numerical parameters and typing in this study

**Methods:** We selected and typing 63right and 83left calcaneus. Calcaneus was divided into four types according to the number of talar joint faces and subdivided into subgroups. The joining of the anterior-medial joints faces is called type1, if there is no narrowing is called Type1a and if there is narrowing is called Type1b in place of the joint faces. In Type2, there were three separate joint faces. The distance between the anterior-medial joint surfaces was measured with a compass. This measurement is less than 2mm that Type2a is called; is between 2-5mm that called Type2b, is larger than 5mm that called Type2c. Therewithal, it is larger than 5mm and anterior joint surface was very small size that called Type2d. Type3 is the absence of the anterior articular surface. Type4 has a single articulating face all fused together.

**Results:** Type1a(%35.6) is the most frequently seen in typing. Type1b(%28) is the second most frequently seen. There was no Type4 in all calcaneus and Type3 in left calcaneus. The average weight of all calcaneus is 10.36gr. When right-left comparisons are made on all measurements, It has been found to be statistically significant that only the angle between the anterior-medial joint faces is higher on the left side. There is no significant difference between right and left in all other measurements.

**Conclusion:**The results obtained for calcaneus, which plays an important role in the kinesiology of the foot and ankle, have provided the identification and typing of the joint faces.

**KeyWords:** subtalar joint, calcaneus, talar articular facets