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There is a conroversy in the literature about the length of the proximal tympanic segment of the facial nerve (PTSFN). The 

objective of the current study is to measure the length of the tympanic segment of the facial nerve (TSFN) and of its proximal (PTSFN) and distal (DTSFN) segments, in normal human temporal bones.

Moreover, we will explore if these lengths are correlated. If a form of a functional relationship can be established, it could offer insights in partially predicting or estimating the length of the TSFN as well as of its proximal and distal portions. Direct measurements were obtained in 40 normal human temporal bones, which were examined by surgical dissection. Relationships between these measurements were established using Pearson's correlation method (two-tailed). The length of the TSFN was on average 10.97 mm.

The length of the PTSFN was on average 5.25 mm and of the DTSFN was 5.72 mm. No significant statistical differences according to gender or side (right or left) were detected. It was determined that the length of the TSFN was in linear correlation with positive direction with its proximal (PTSFN) and distal (DTSFN) segments.

Nikolaidis V, Nalbadian M, Psifidis A, Themelis C, Kouloulas A.The tympanic segment of the facial nerve: Anatomical study.Clin Anat. 2008 Dec 16.

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Also the PTSFN length was in linear correlation with positive direction with the DTSFN length. The length of the PTSFN comprises about one-half of the TSFN length. The existence of a definite correlation between the lengths of the TSFN, PTSFN, and DTSFN implies the existence of a form of functional interrelationship. This could facilitate prediction and identification of the TSFN and PTSFN lengths from the easily identifiable DTSFN length during surgery. Clin. Anat. 2009.

Nikolaidis V, Nalbadian M, Psifidis A, Themelis C, Kouloulas A. The tympanic segment of the facial nerve: Anatomical study. Clin Anat. 2008 Dec 16.