

Arcade of Frohse

The deep branch of the [radial nerve](#) (DBRN) enters the [forearm](#) as it passes under the arcade of Frohse. This is the most common entrapment site of the DBRN in the forearm.

In a study, Babaei-Ghazani et al., investigated the ultrasonographic reference values for the diameters and cross-sectional area (CSA) of the DBRN at the level of the arcade of Frohse in a healthy sample of the population.

Sixty-five healthy Caucasian volunteers (130 nerves) were recruited for this study. The reference range [mean \pm 2 standard deviations (SD); 2.5th-97.5th quintiles] and the upper limit of the side-to-side difference were determined. The effects of age, gender, handedness, height, and body mass index were examined.

The mean age was 41.8 ± 11.2 years (range 18-75 years). The mean \pm 2SD of the CSA was 0.50-1.42 mm². The upper limit of the normal side-to-side difference was 0.35 mm². The differences between males and females and between the dominant and non-dominant arms were not significant. The mean anteroposterior and transverse diameters were 0.83 ± 0.13 and 1.23 ± 0.29 mm, respectively. A significant correlation between the dominant-side CSA and age ($r = 0.41$; $p < 0.001$) was observed. The correlations between CSA and height ($r = 0.19$; $p = 0.12$) and body mass index ($r = 0.22$; $p = 0.07$) were not significant.

The measurements obtained in this study are valuable for examining DBRN pathologies using high-frequency ultrasound. The findings showed that age was associated with the DBRN CSA, while gender, height, and body mass index were not ¹⁾.

¹⁾

Babaei-Ghazani A, Roomizadeh P, Sanaei G, Najarzadeh-Mehdikhani S, Habibi K, Nikmanzar S, Kheyrollah Y. Ultrasonographic reference values for the deep branch of the radial nerve at the arcade of Frohse. J Ultrasound. 2018 Jun 16. doi: 10.1007/s40477-018-0303-8. [Epub ahead of print] PubMed PMID: 29909505.

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