Resource Summary Report

Generated by dkNET on Sep 11, 2026

Ultrasonographic measurements of the right femoral vein cross-sectional area

DOI:10.17504/protocols.io.iq5cdy6
Type: Protocol

Proper Citation

Dorota Czyzewska1*, Andrzej Ustymowicz2, Radoslaw Kowalewski3¶, Anna Zurada4¶, Jaroslaw Krejza5 2017. Ultrasonographic measurements of the right femoral vein cross-sectional area. protocols.io dx.doi.org/10.17504/protocols.io.iq5cdy6

Protocol Information

URL: https://dx.doi.org/10.17504/protocols.io.iq5cdy6

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Summary: Exclusion criteria: lower limb varices, history of leg surgery, trauma, infection, or thromboembolic events.Ultrasound examinations are performed in B-mode technique, equipped with a linear broadband (7.5-14-MHz) transducer. The right femoral vein and the inguinal ligament are examined in a supine position. The inguinal ligament is identified along its longitudinal axis. The measurements levels are identified as follow:- proximal level: 20 mm caudally to the inguinal ligament identified along the femoral artery imaged with US- distal level: 20 mm caudally to the inguinal crease visually identified and along the femoral artery imaged with USThe cross-sectional area (CSA) of the right femoral vein is examined at both levels in transverse plane and is measured automatically after manual tracing of the vessel on a static image in three leg positions: abduction, abduction + external rotation, abduction + external rotation + 90º knee flexion/frog-leg. Attention must be taken to avoid any compression or displacement of the examined vein.

Associated Publications: Czyzewska D, Ustymowicz A, Kowalewski R, Zurada A, Krejza J (2017) Cross-sectional area of the femoral vein varies with leg position and distance from the inguinal ligament. PLoS ONE 12(8): e0182623. doi: 10.1371/journal.pone.0182623

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External URL: https://doi.org/10.1371/journal.pone.0182623

Version: 1

Publication Date: 2017

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Record Creation Time: 20210329T220533+0000

Record Last Update: 20210329T221008+0000

Data and Source Information

Source: