

Ankle-brachial index (ABI)

Keywords: blood pressure, definition of systolic and diastolic pressure, principle of oscillometric measurement

Physiological prerequisite: In the supine position, blood pressure has the same value in all arteries

Measuring principle: oscillometric

Procedure:

Place the cuff of one device on the right arm, the other device on the left leg above the ankle (the green stripe or arrow on the cuff should be oriented towards the a.tibialis posterior behind the inner ankle) – and if possible at the same time we take measurements – record the results to table in your protocol

We will do the same in the following places: right arm – right ankle, left arm – right ankle, left arm – left ankle

Index calculation: we always put into the ratio of systolic blood pressure measured on the arm (the higher of the two measurements) and systolic blood pressure measured in the ankle area (the higher of the two measurements), separately for the right and left limbs

Clinical note: in practice, the determination of this index is determined by a much more accurate ultrasonic method. A value below 0.9 may be an indication of ischemic disease of the lower extremities, a critical value of 0.6. Value greater than 1.3 – indicates incompressible blood vessels due to calcification.

When interpreting the measured values, take into account that blood pressure fluctuates constantly over time and your measurement method has an error of +/- 3-5 mmHg.