

**BOSCH
+SOHN**

boso

Arteriosclerosis PAOD-Screening

One in five of the over 65 year olds is affected by a vascular disease that requires treatment, **80% of them are unrecognized***

**MADE IN GERMANY
CLINICALLY VALIDATED**



Now vessel-oriented
Initial examination with the
boso ABI-system 100

- ✓ measurement takes **1 minute**
- ✓ delegable
- ✓ discovers asymptomatic patients

*Diehm C., Schuster A., Allenberg H. et al. High prevalence of peripheral arterial disease and comorbidity in 6,880 primary care patients: cross sectional study. Atherosclerosis. 2004; 172:95–105

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The ankle brachial index is the best predictor of heart attack, stroke and mortality.

An ABI reading of < 0.9 , compared with the angiogram as the gold standard, has a sensitivity of up to 95% in identifying PAOD, and conversely rules out this condition in healthy people with a specificity of almost 100%.¹ The getABI study² shows that the prevalence of PAOD among individuals aged over 65 is 20%.

The method previously used to measure ABI was Doppler ultrasound, which is very time-consuming and only produces reliable results if the operator is highly experienced in the procedure. This means that vascular tests are normally only conducted at a point when an existing PAOD may already have led to symptomatic or asymptomatic cardiovascular conditions, even in high-risk groups such as smokers, diabetics or elderly people. The boso ABI-system is a much simpler, faster and more accurate way of calculating this critical parameter, and it can therefore be performed as a routine check on every patient.

boso's ABI measurement system plugs an important gap in cardiovascular diagnosis. A must for your day-to-day practice.

Visit for more information and downloads www.boso.de

Arteriosclerosis PAOD-Screening

The measurement of the **ankle-brachial index** with the boso ABI-system takes 1 minute and also discovers asymptomatic patients. Reliable and simple — so it can easily be delegated to employees.

Your advantages:



Widely applicable measuring method as a routine check for early detection



Precise measuring method, clinically validated, at all 4 extremities at the same time



Measurement takes 1 minute



Delegable to employees, because simple measurement



Provides important additional values for cardiovascular diagnosis, arrhythmias, the pulse pressure, the side difference and helps the derivation for individual treatments

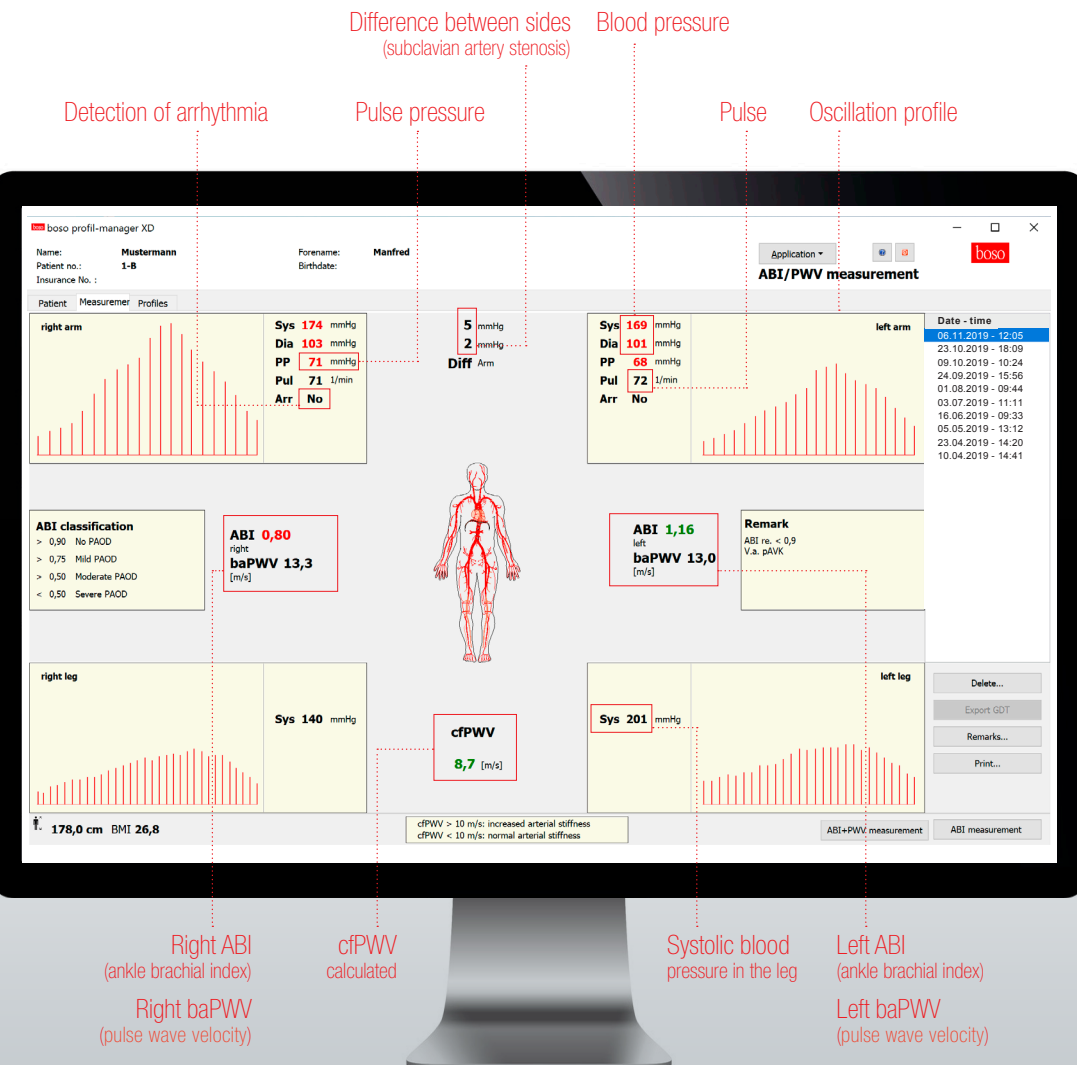


¹ Prof. Dr. med. Curt Diehm Chief Physician | Max Grundig Klinik Buehlerhoehe

² www.getabi.de

The assessment

The sophisticated software accurately calculates the ABI both on the left and on the right side. Other important cardiovascular parameters are also measured, such as individual blood pressure readings in arms and legs, differences in blood pressure on different sides of the body (subclavian artery stenosis), pulse, pulse pressure, oscillation profile and pointers to possible cardiac dysrhythmia disorders. This information is easily identifiable as all critical values are highlighted in a different colours.



Pulse wave velocity

Pulse wave velocity (PWV) is an additional tool to diagnose PAOD and to measure arterial stiffness.

This measurement function is an optional extra with the boso ABI-system. It allows pulse wave velocity (ba) to be measured on both sides. Pulse wave velocity (cf) then is calculated from that result.

Arterial stiffness increases with age and in response to other risk factors, especially classic cardiovascular risk factors. Increased arterial stiffness causes typical haemodynamic changes. The onset of hypertension in middle-aged and elderly individuals is closely linked to increased arterial stiffness.

Arterial stiffness readings provide useful information about the existence of functional arterial changes. Pulse wave velocity is a good predictor of the onset of cardiovascular disease. It is more accurate than classical risk parameters such as blood pressure and age.

For a better management of patients with hypertension, tests for arterial stiffness provide additional information about the cardiovascular risk. The recent guidelines published by the European Society of Hypertension (ESH) and the European Society of Cardiology (ESC) recommend the investigation of arterial function in the management of hypertensive patients.

A pulse wave velocity (cf) of 10 m/s is the threshold value for the manifestation of endorgan damage. Current hypertension guidelines state that low to normal systolic blood pressure is the therapeutic goal for these patients. In addition, a thorough cardiovascular assessment and consistent management of all cardiovascular risk factors is recommended.

Source: DeGAG | Gesellschaft für Arterielle Gefäßsteifigkeit
Deutschland-Österreich-Schweiz e.V.
[German-Austrian-Swiss Society for Arterial Stiffness]

The clinical study

The boso ABI-system has undergone clinical assessment comparing it to Doppler-assisted ABI measurement, and was found to be superior.

The study was published by Swiss Medical Weekly

Oscillometric measurement of ankle-brachial index in patients with suspected peripheral vascular disease: comparison with Doppler method

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Conclusions: Results of automated oscillometric ABI determination correlated well with Doppler-assisted measurements and could be obtained in shorter time. Agreement was particularly high in oligo-symptomatic non-diabetic patients.

Facts and figures

Contents of package

- 1 Measuring device | 2 nylon arm cuffs (arm circumference 22 – 42 cm), incl. tube
- 2 nylon leg cuffs (leg circumference 18 – 38 cm, incl. tube | 1 power pack
- 1 USB connection cable | 1 CD with profile manager XD software.

Technical data

- Principle of measurement oscillometry | Range of measurement systole 60 to 240 mmHg |
- Range of measurement diastole 40 to 140 mmHg | Cuff pressure 0 to 300 mmHg |
- Weight 3,8 kg without power pack | Dimensions (W x H x D) 460 x 83 x 290 mm

Outstanding

The patented boso ABI-system offers many benefits for doctors and patients compared to the previous Doppler ultrasound method.

Early detection and routine check

In the past, tests were only carried out in cases of suspected disease, because the test was time-consuming and expensive. In addition, PAOD often was not detected early enough as it does not cause any symptoms for a long time. The boso ABI-system is an innovative and rapid way of measuring the ankle-brachial index (ABI). This allows to carry out this test on a large scale. It is a simple routine check which is also well accepted by patients because it only takes a few minutes and is also more reliable..

Accurate and time-saving

Ankle brachial index measurements taken with the boso ABI-system are more accurate and faster. An oscillometric blood pressure measurement is done in all four limbs simultaneously. With the old method the measurements were taken consecutively. Thus the new instrument saves time. Moreover it avoids incorrect readings due to blood pressure variability. Consequently the reproducibility of the ABI-readings is improved.

Delegation and cost saving

This test does not need to be performed by a doctor, taking up valuable time. As the boso ABI-system is so simple, no special experience is required. Other members of the healthcare staff can perform it. No specific preparation time is needed, and the ankle brachial index can be calculated in just a few minutes. The actual measuring time is only one minute. This saves precious time and it saves a considerable amount of money.

Software and health status

Previous test methods did not offer automatic assessment. The boso ABI-system uses a software offering several advantages. Once a reading has been taken, the results are automatically allocated to the selected patient. The system measures other important cardiovascular parameters in addition to the ABI and shows all data at one glimpse. The GDT interface allows data to be transferred to the doctor's DTP system.

96%

of all German general practitioners,
physicians and internists work in practice
with blood pressure instruments from boso.
(API survey conducted by GfK 01/2016)

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