boso
BOSCH + SOHN
GERMANY

PAOD! The crucial risk marker for heart attack and stroke!

Now PAOD screening with the boso ABI-system!

The measurement takes 1 minute and also discovers asymptomatic patients. The new standard for primary care.

Optional with PWV measurement.

Top quality for doctors and clinics

PAOD-Screening with the boso ABI-system.

The new standard for primary care.

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.

Optional with PWV measurement for the evaluation of arterial stiffness.

PAOD! **The crucial** risk marker for heart attack and stroke

- 4.5 million Germans are affected.
- The life expectancy of those affected is reduced by approx. 10 years, every 5th dies within 5 years.
- 9 out of 10 patients show no classic symptoms and thus remain undetected. With the same risk!

Source: getABI study | www.getabi.de

MADE IN GERMANY
CLINICALLY VALIDATED

boso Germany Premium quality

Decisive:

The ankle brachial index.

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 study[2] 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.

[1] Prof. Dr. med. Curt Diehm
Chief Physician | Max Grundig Clinik Buehlerhoehe

[2] www.getabi.de

Outstanding:

The boso ABI-system.

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.

With the boso ABI-system 100, the measurement of all four limbs takes place simultaneously.

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

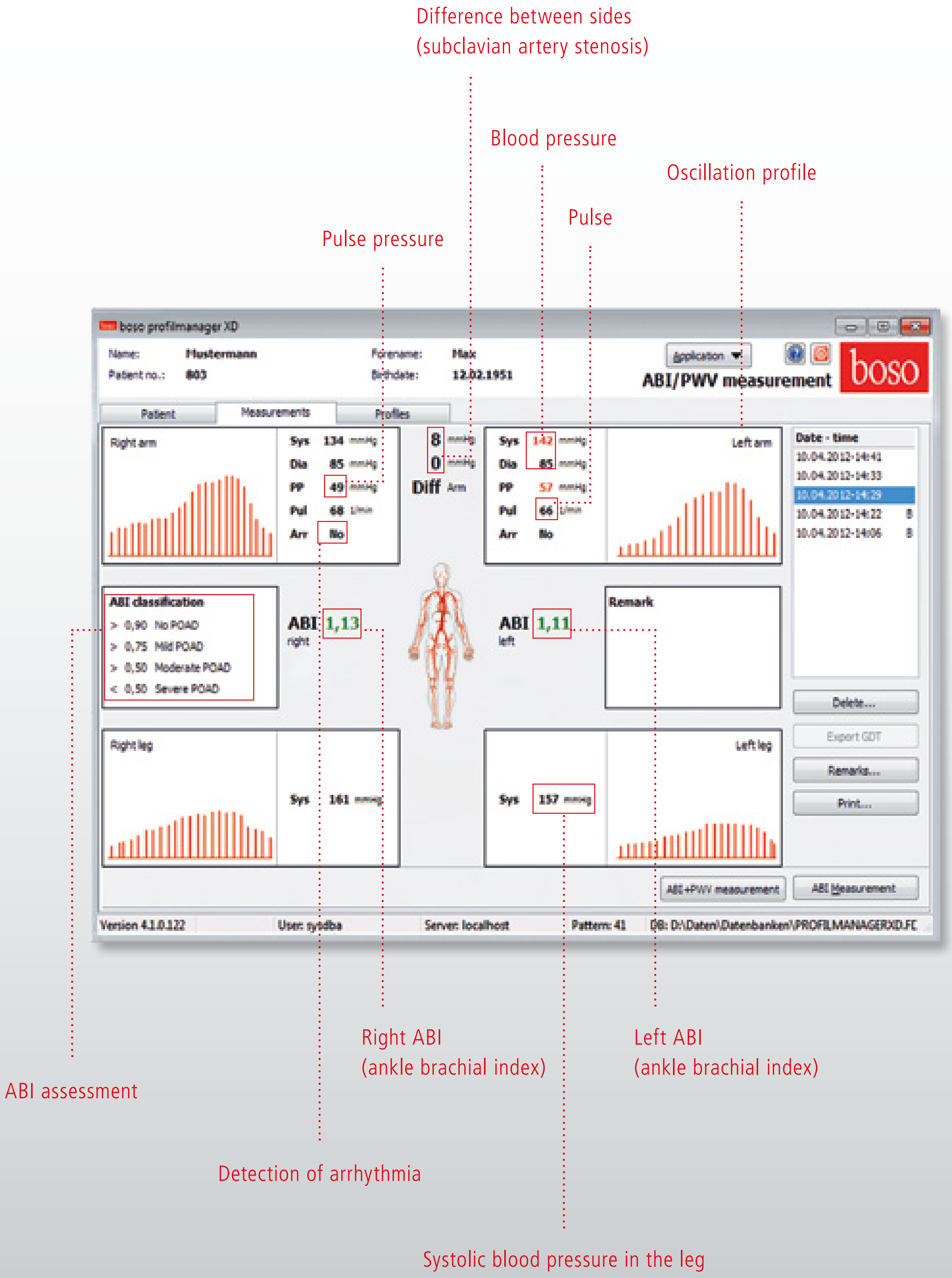
Previous test methods did not offer automatic assessment. The boso ABI-system uses a software offering several advantages. Once a reading has been taken, the results are automatically allocated to the selected patient. The system measures other important cardiovascular parameters in addition to the ABI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

Informative:

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.



Complementary:

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.

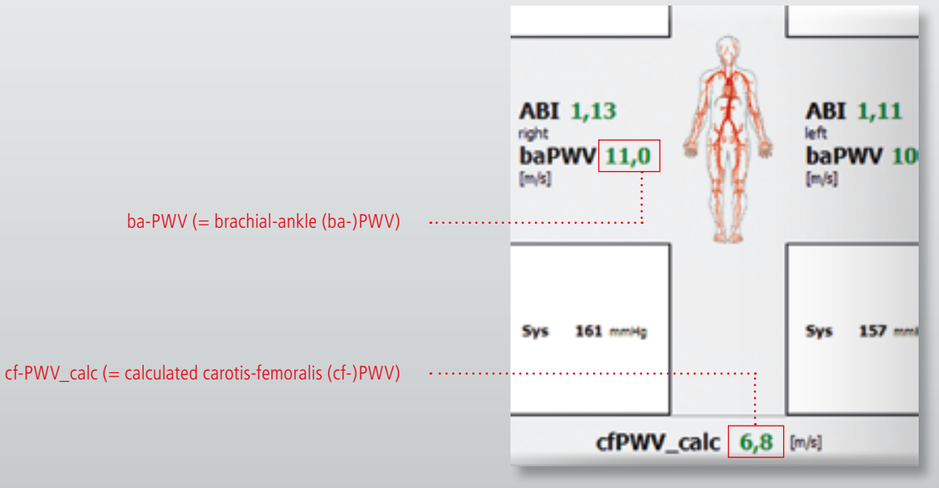
Arterial stiffness increases with age and in response to other risk factors, especially classic cardiovascular risk factors. Increased arterial stiffness causes typical haemodynamic changes. The onset of hypertension in middle-aged and elderly individuals is closely linked to increased arterial stiffness.

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 end-organ 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.

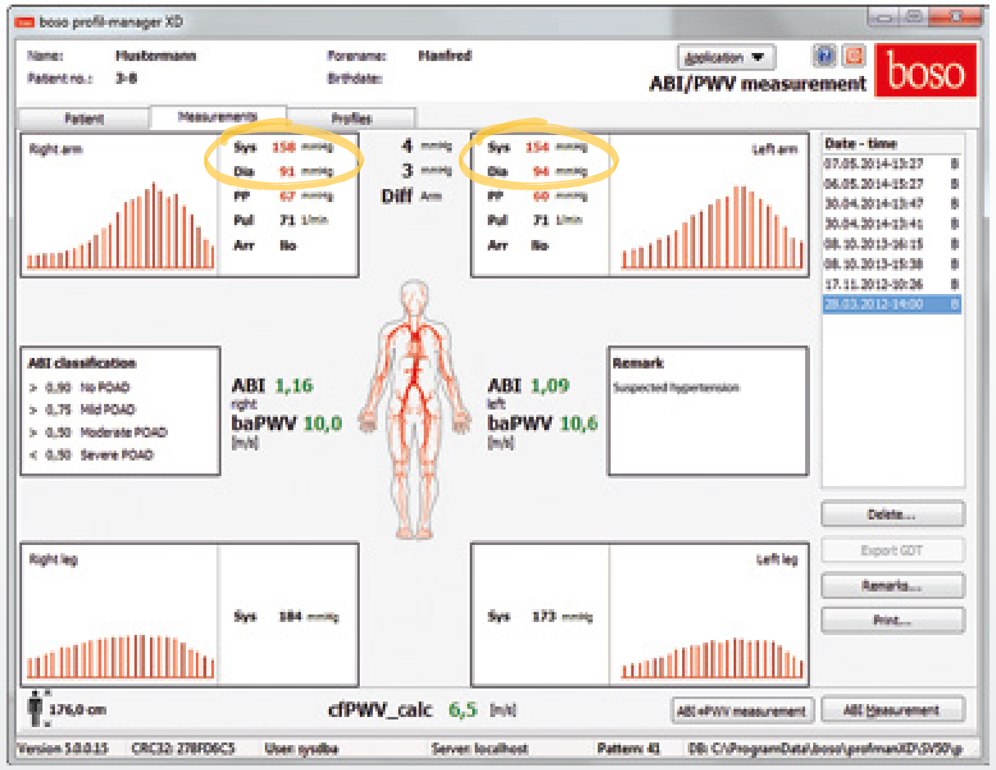
Source: DeGAG | Gesellschaft für Arterielle Gefäßsteifigkeit Deutschland-Österreich-Schweiz e.V. [German-Austrian-Swiss Society for Arterial Stiffness]



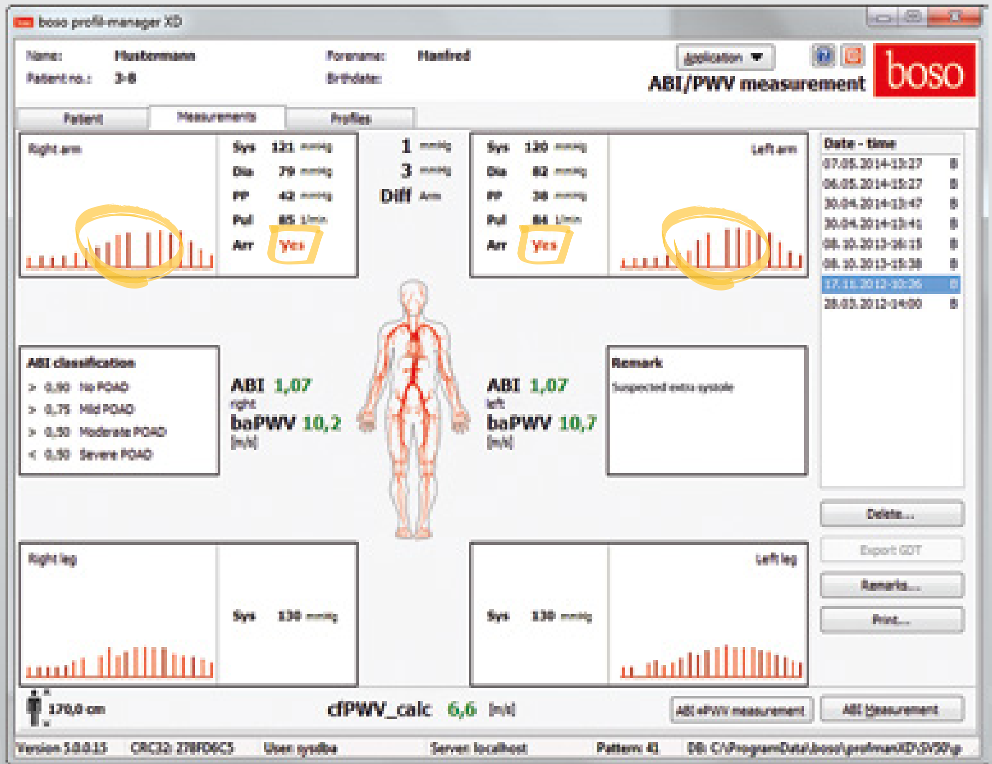
For the daily practice:

Some case examples.

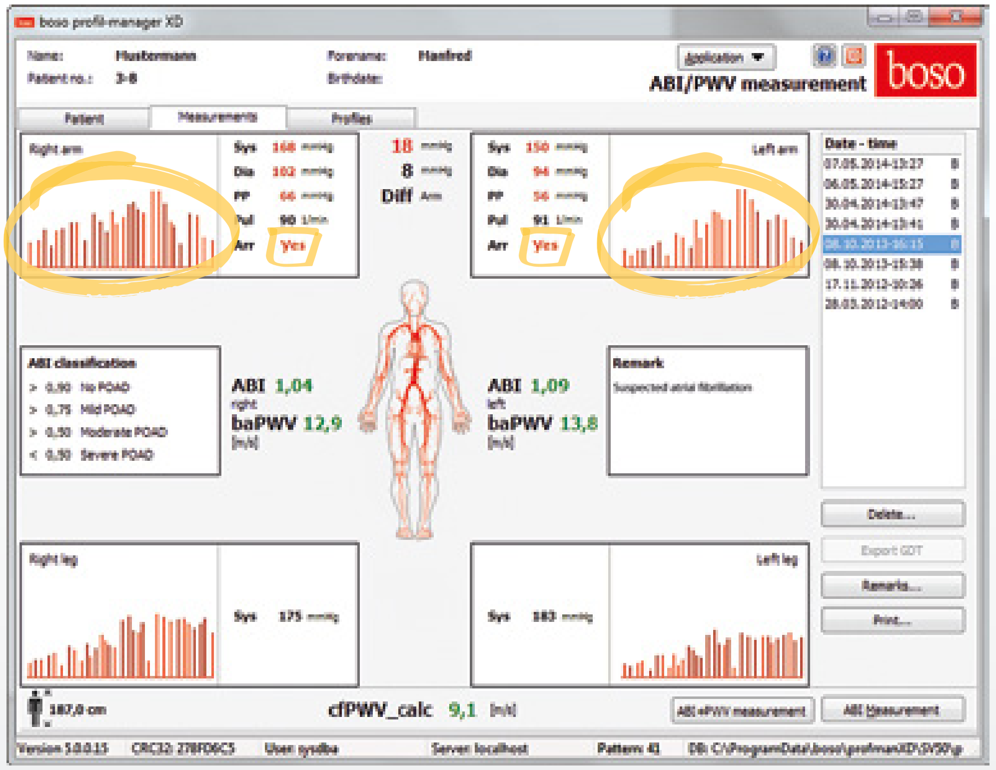
SUSPECTED HYPERTENSION



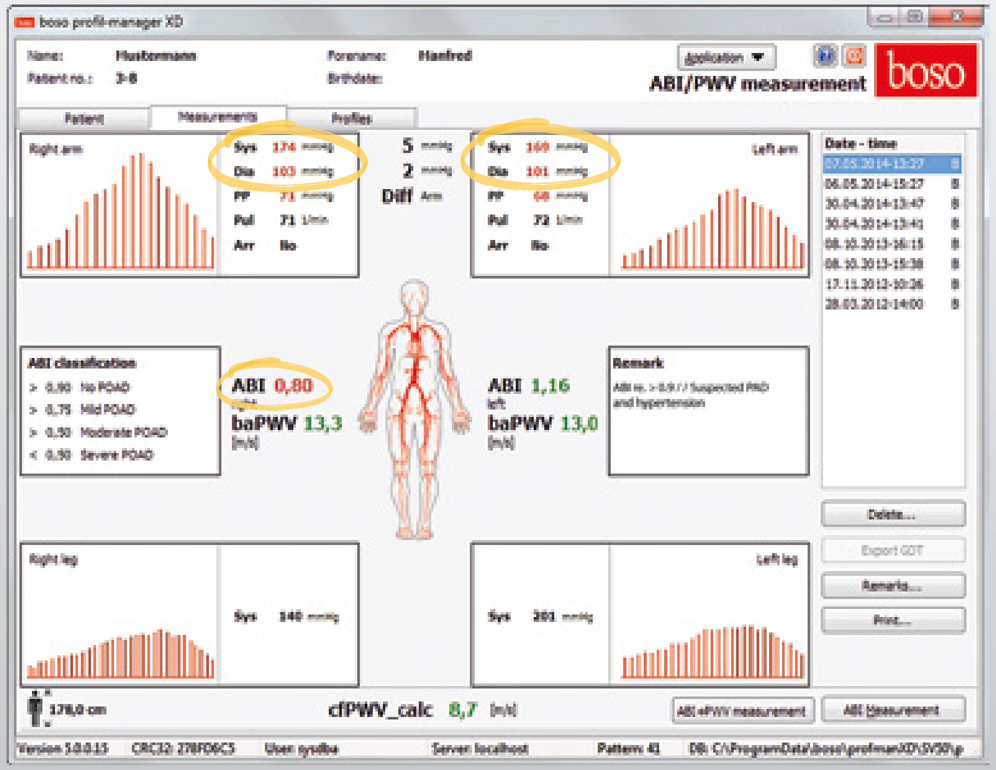
SUSPECTED EXTRASYSTOLE



SUSPECTED ATRIAL FIBRILLATION



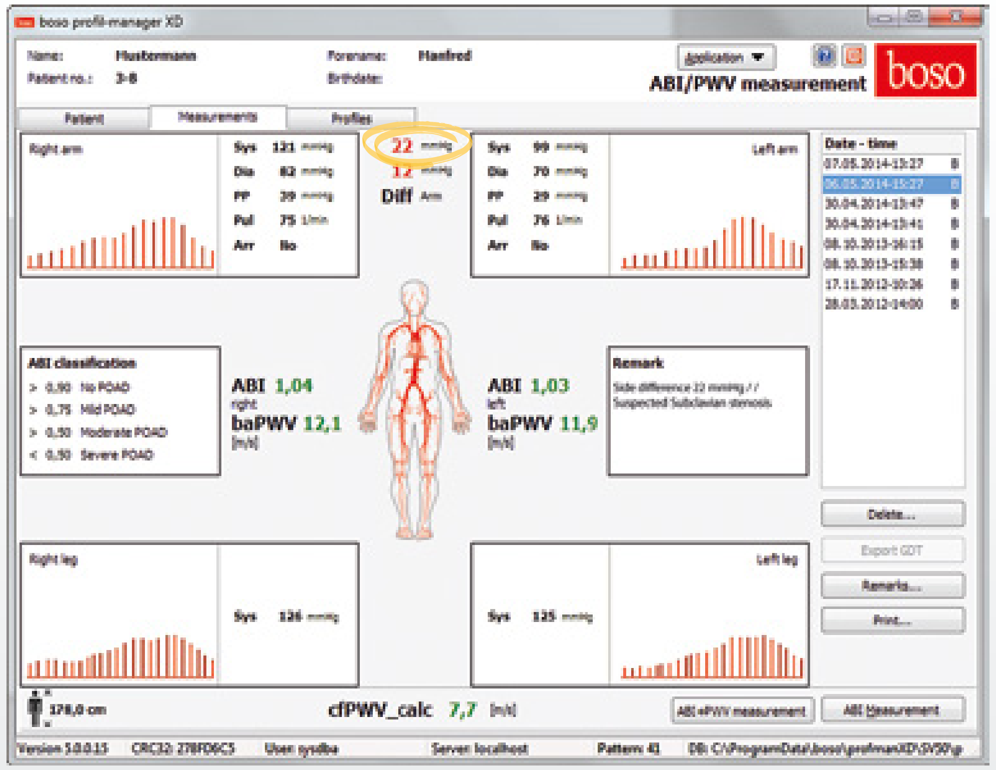
ABI RE. > 0.9 // SUSPECTED PAD AND HYPERTENSION



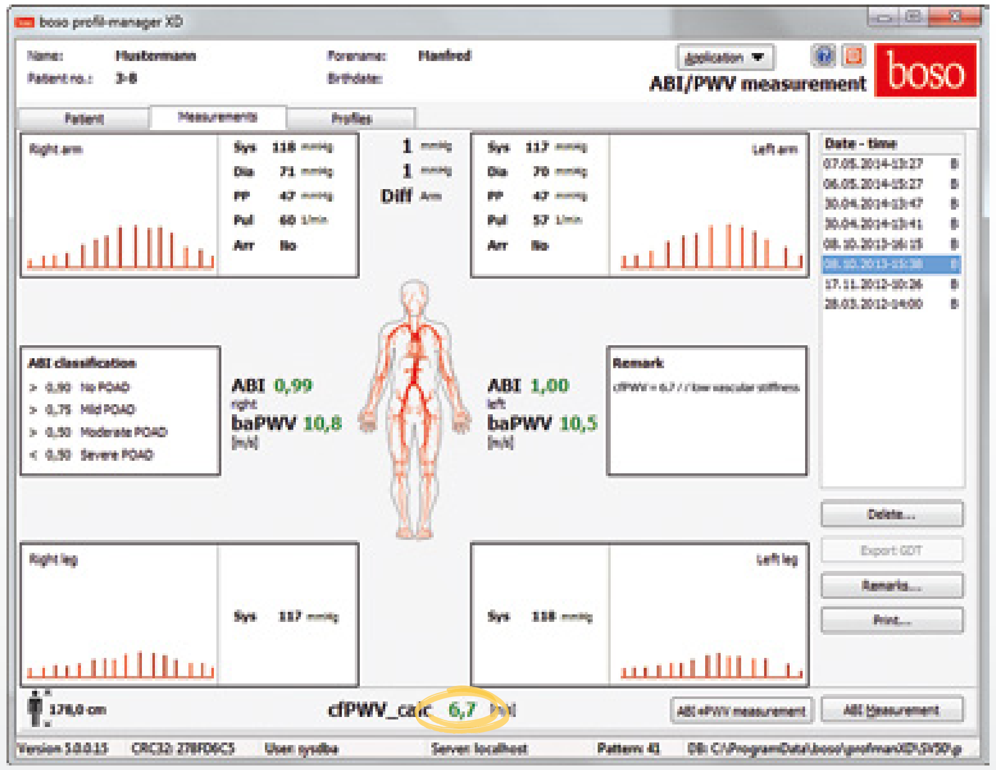
For the daily practice:

Some case examples.

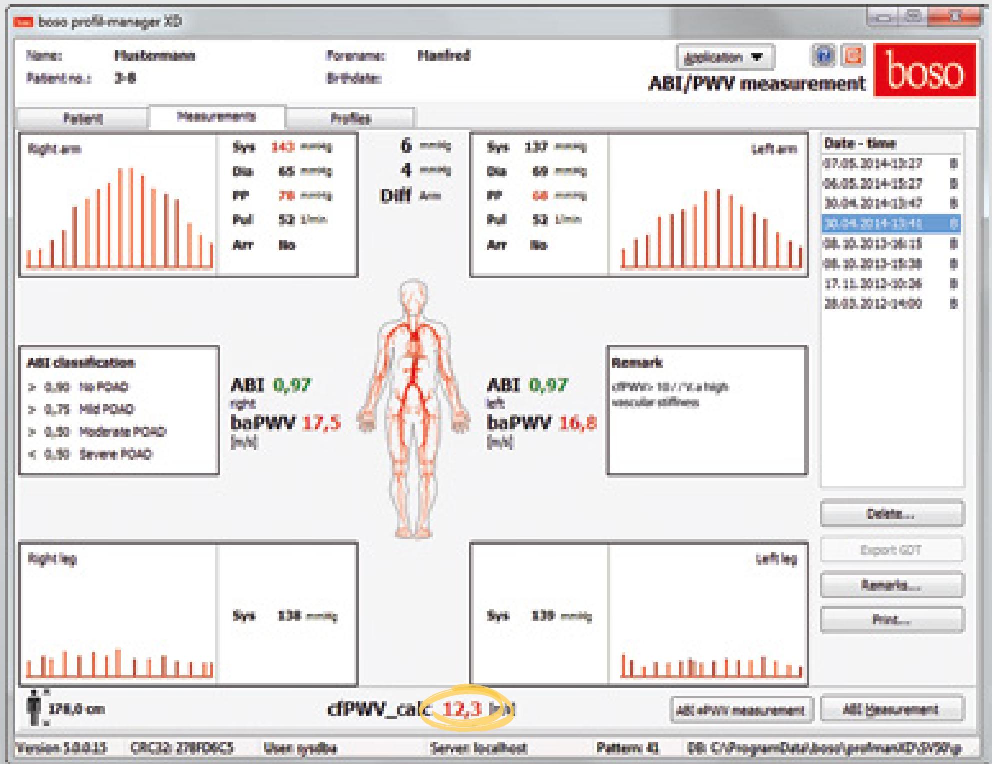
SIDE DIFFERENCE 22 MMHG // SUSPECTED SUBCLAVIAN STENOSIS



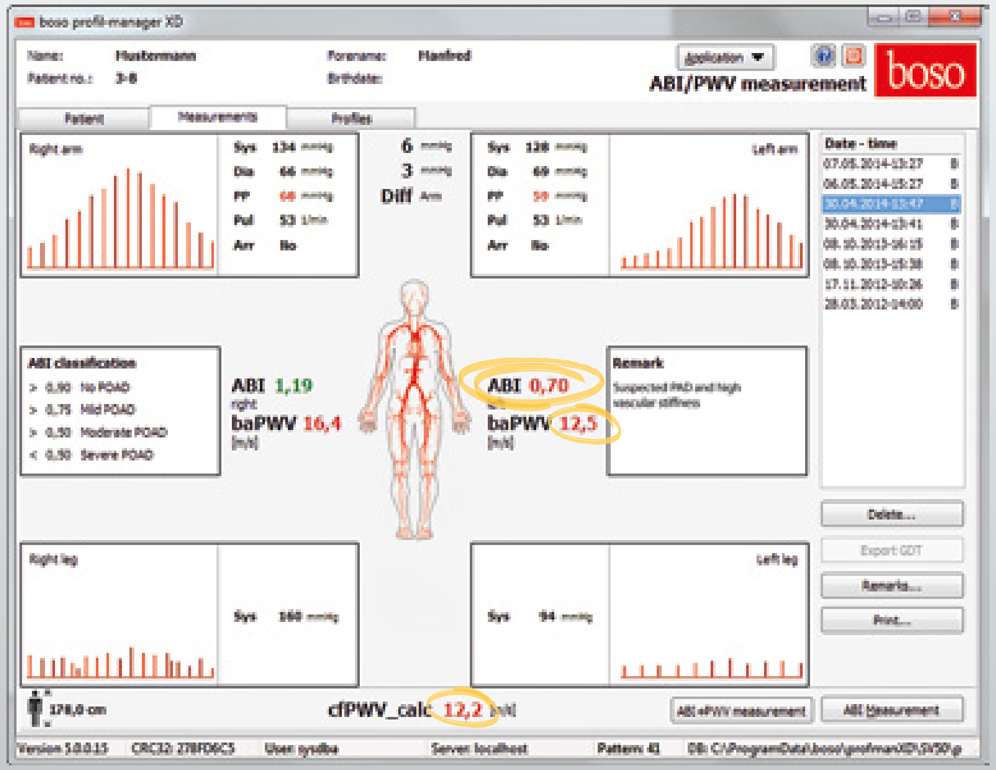
CFPWV = 6.7 // LOW VASCULAR STIFFNESS



CFPWV> 10 // V. A HIGH VASCULAR STIFFNESS



SUSPECTED PAD AND HIGH VASCULAR STIFFNESS

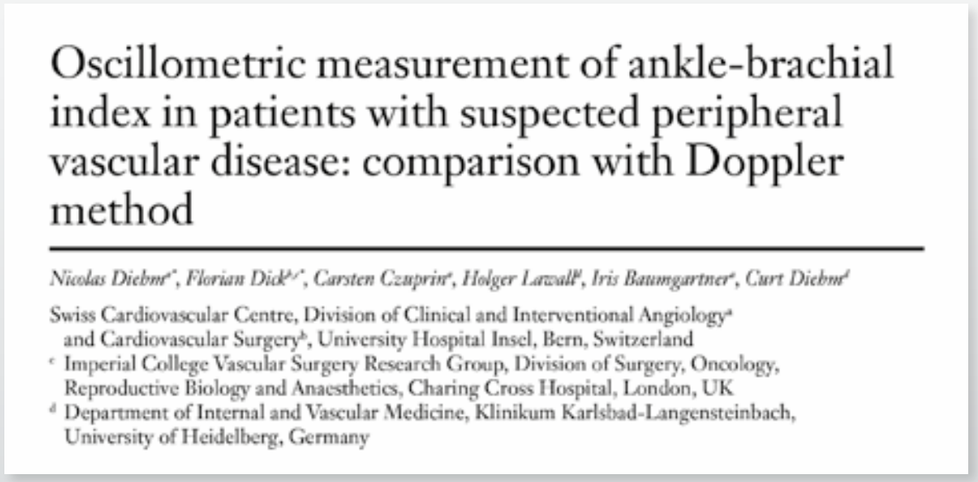


Validated:

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 on 26 June 2009 and can be downloaded at http://www.smw.ch/docs/smw/archiv/pdfcontent/smw-12636.pdf or at our special website www.boso-abi.de



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.

Ready for use:

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

System requirements for operating the software

Graphics card | 20 MB free hard disk storage | USB interface
Microsoft WINDOWS XP and above

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