

VP1000 plus

An advanced Non-Invasive vascular screening device
for the prevention of cardiovascular diseases

An advanced non-invasive screening device to diagnose the degree of arteriosclerosis from different angle: arterial stenosis by ABI and arterial wall stiffness by PWV. Imported and Distributed in India exclusively from OMRON HEALTH CARE Japan.

Key Features:

Fast – Approx. less than 5 minutes for a test.

Simple - Fully automated examination can be operated by nurse or technician with minimal training.

Accurate and Reliable results – The advanced technology, eliminating investigator variability.

Simultaneous Measurement of all limbs - Simultaneously measures of arterial pressures and waveform in all 4 limbs facilitating a highly accurate Ankle-Brachial Index calculation.

Touch Screen Interface - The touch screen interface and logical menu system simplifies data entry and navigation.

Memory – 200 patient report in pdf and 2000 patients raw data are stored in memory. An external memory helps to store unlimited no of patient's pdf report.

Multiple Report Format Options - Reports available include: Clinicians Report, Patient Report, Trend Report, and Post Exercise/Recovery Report.

R – R Variability Study: A simple 2 minutes R-R variability test helps to record the coefficient of variation of HRT and helps to interpret the patients with diabetic autonomic neuropathy failure.

Portable – All-in-one design that can be installed anywhere.

Toe Brachial Index (TBI) – An optional 'TBI' function using plethysmographic toe cuffs to measure toe pressure. The toe vessels are less susceptible to vessel stiffness, which makes the TBI useful.



For more information contact



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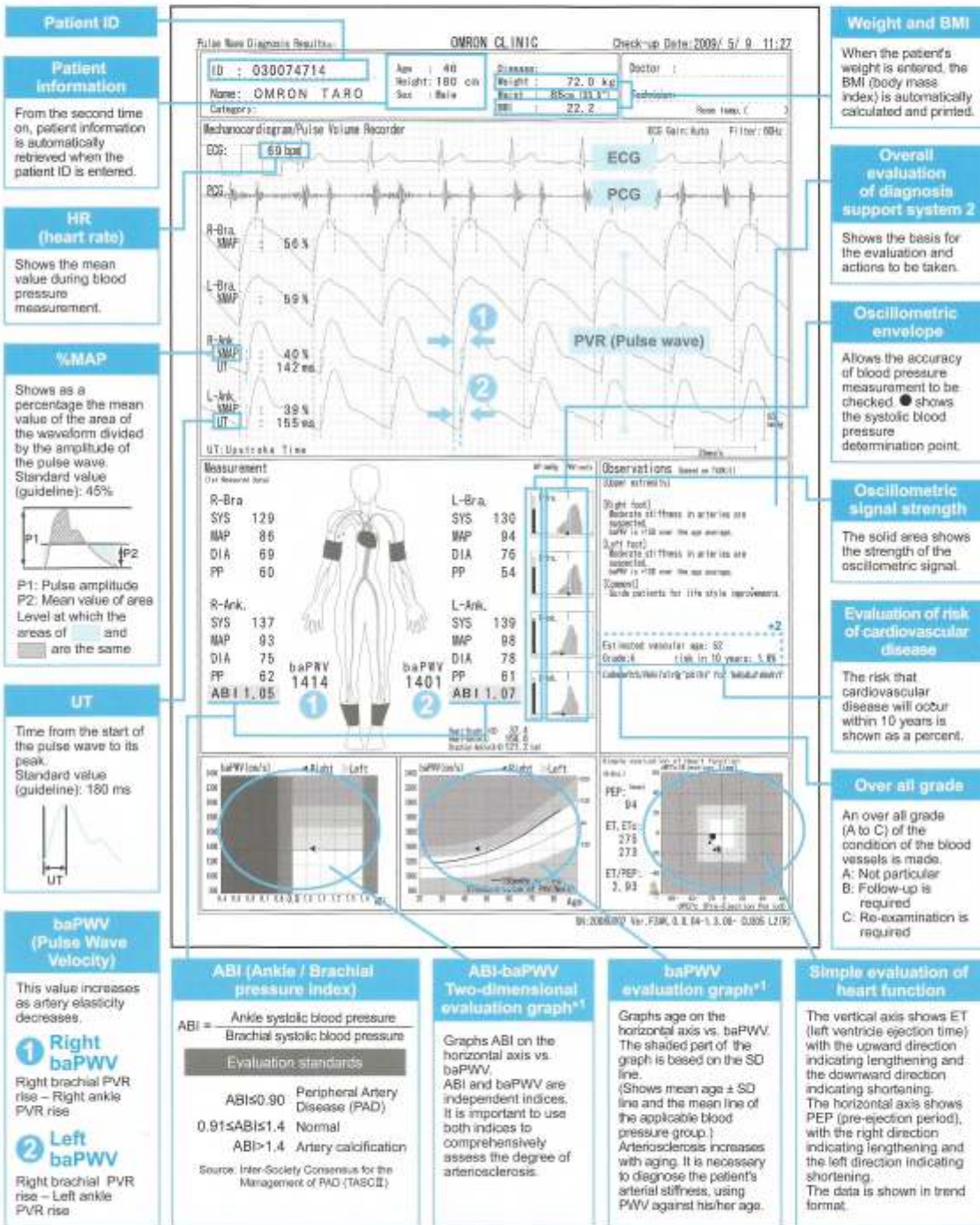
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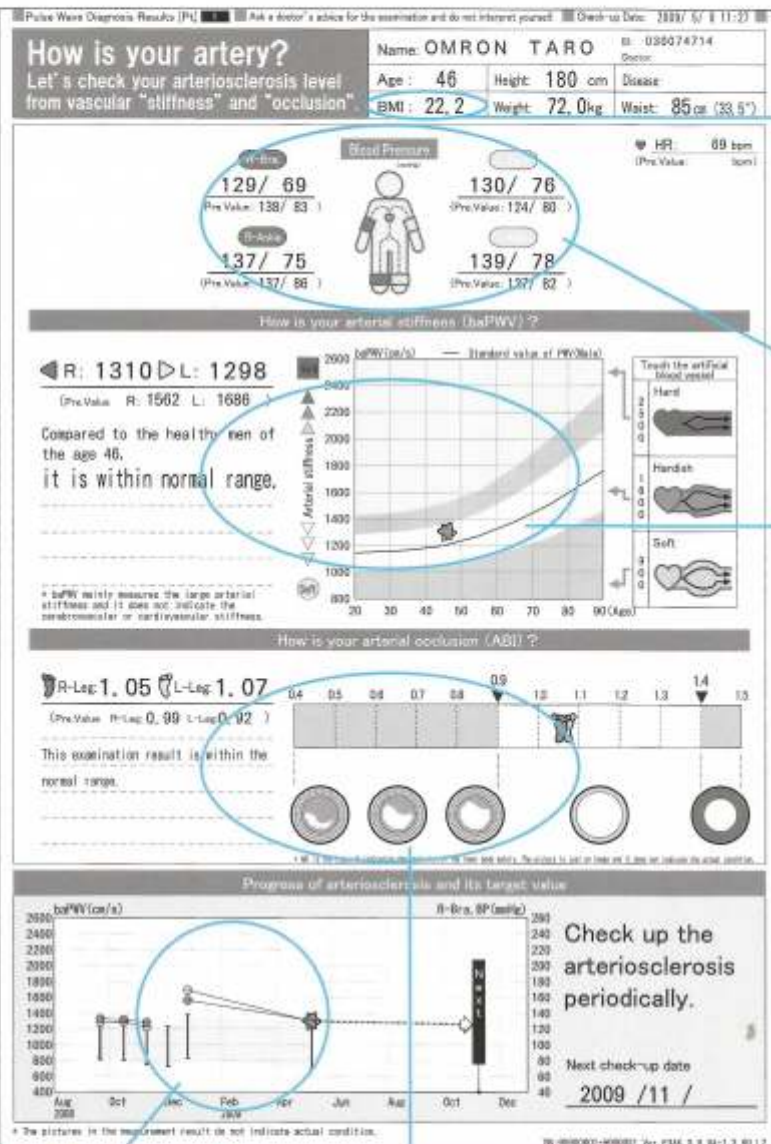
Non-invasive Vascular Screening Device BP-203RPE III

Explanation of the Measurement Results



For the Patient

Explanation of the Measurement Results



Body Mass Index (BMI)

This is shown if a weight was entered.

Evaluation standards

* The standard value is 22.

BMI < 18.5 Underweight
18.5 ≤ BMI < 25 Normal weight
25 ≤ BMI < 30 Overweight
BMI ≥ 30 Obese

Blood pressure

The blood pressure value is indicated.

Arterial stiffness (baPWV)

Evaluated based on an age standard.

Evaluation standards

If the value is more than 1 SD from the mean value, it is determined that arteriosclerosis is progressing.

A high PWV value indicates higher arterial stiffness and lower distensibility. However, the PWV value will be lower if your lower limb arteries have stenosis.

* You can also choose to show this with an vascular age indication.

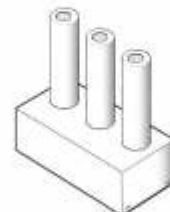
Arterial stiffness and age curve graph

This shows the degree of your arterial stiffness.
This is compared to the mean value of your age group, and comments are indicated.

Patient guidance using a blood vessel model

This represents arterial stiffness.

Three levels of stiffness are shown: 2500 cm/sec, 1600 cm/sec, and 900 cm/sec



Trend graph

Trends are shown together with the treatment period as a graph.
(Data from the past year and up to the past five years can be recorded.)

Target values for the patient and the scheduled date of the next examination are automatically set and indicated.

Arterial stenosis (ABI)

This shows the degree of stenosis in lower-extremity arteries.

Arterial stenosis image graph

The degree of stenosis in lower-extremity arteries is shown together with a cross sectional image of an artery.

White parts are normal areas. The lower the value, the severer the stenosis.
However, a value higher than 1.4 indicates progressing of arterial stiffness due to calcification.

Protect your patients with the new predictors of cardiovascular disease: ABI and baPWV

Ankle Brachial Index (ABI)

- ◆ A widely used index to detect peripheral arterial disease(PAD)
- ◆ A predictive marker for cardiovascular disease¹

PAD patients (defined as ABI <0.9) are at high risk of premature mortality and/or vascular events, regardless of symptoms.²

ACC/AHA and **TASC II** PAD guidelines recommend ABI screening for all patients with suspected lower extremity PAD.^{3,4}

Brachial Ankle Pulse Wave Velocity (baPWV)

- ◆ A novel index of arterial stiffness^{5,6}
- ◆ A potential independent marker of arteriosclerosis in high risk patients⁷

The 2007 **ESH/ESC** guidelines recognise both ABI and PWV for their predictive value for future cardiovascular events, and as markers of sub-clinical organ damage.⁸

Pulse Wave Velocity:

Pulse Wave Velocity is the propagation speed of this wave along the arteries. Increased stiffness of the arteries increases Pulse Wave Velocity. Age and systolic pressure strongly correlate with PWV. In fact, the most important factor contributing to increase in PWV is age because of increased arterial stiffness caused by medial calcification and loss of elasticity.

Measuring Pulse Wave Velocity is recognized by the medical community as the best way to assess cardiovascular health, because it takes both arterial health and blood pressure variations into account.

"Decreasing PWV shows cardiovascular state improvement." Professor Pierre Boutouyrie, European Society of Hypertension

"Elevated PWV is jointly associated with future systolic blood pressure and incident hypertension." Dr. Gary Mitchell, Framingham Heart Study

Vascular Age

Vascular age is the apparent age of the blood vessels, particularly the arteries when compared to what is normal for the healthy population. Vascular age is affected by genetic predisposition, lifestyle choices and other factors.

Reference:

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4. Norgren L, et al. Inter-Society Consensus for the Management of Peripheral Arterial Disease (TASC II). *Eur J Vasc Endovasc Surg* 2007; 33(Suppl 1):S1-75.
5. Tanaka H, et al. Comparison between carotid-femoral and brachial-ankle pulse wave velocity as measures of arterial stiffness. *J Hypertens*. 2009;27(10):2022-7
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7. Koji Y, et al. Comparison of ankle-brachial pressure index and pulse wave velocity as markers of the presence of coronary artery disease in subjects with a high risk of atherosclerotic cardiovascular disease. *Am J Cardiol*. 2004;94(7):868-72.
8. Mancia G, et al. 2007 ESH-ESC Practice Guidelines for the Management of Arterial Hypertension. *J Hypertens*. 2007;25(9):1751-62



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