

Diagnostic device for Arteriosclerosis and Aneurysm

Can diagnose in a short time while sitting!!

Overview

Causes of fatal diseases such as cerebral infarction and myocardial infarction include vessel diseases such as arteriosclerosis, vascular stenosis, or aneurysm. Early non-invasive detection of such vessel diseases can prevent the development of fatal diseases. Conventional PWV tests can only determine vascular stiffness. The present invention is a novel method that combines viscoelastic analysis of blood vessels and irregular vibration analysis of blood vessel walls.

It is a noninvasive diagnostic method that can cope with various causes of arteriosclerosis. Aneurysms in the trunk, which are distant from the measurement site, can also be determined.

★The software patent was filed jointly with Rise Corporation, and the software will be manufactured by the company.

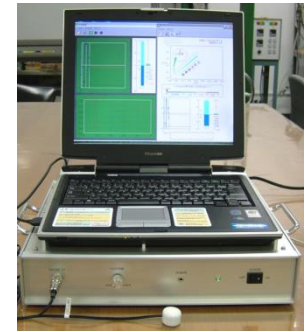
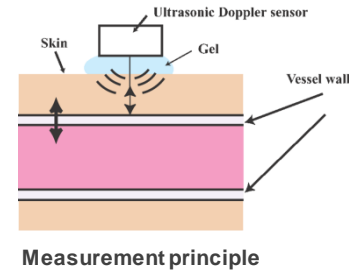
★A prototype of the equipment has been completed, and it is available for loan upon request.

Product Application

- Diagnostic device for arteriosclerosis and aneurysm
- Arteriosclerosis/Aneurysm progress monitoring device
- Diagnostic device for other vessel diseases

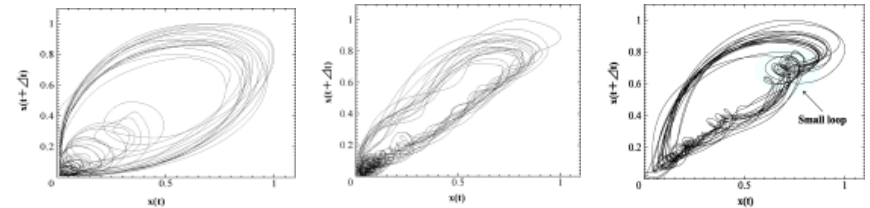
IP Data

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 Admin No. : T10-020, T16-168



Diagnostic device

Features·Outstandings



a) Healthy example b) Arteriosclerotic case c) Case of aneurysm disease

- a) Healthy examples have an elliptical vessel wall pulsation trajectory.
- b) In arteriosclerotic cases, the shape of the ellipse is asymmetric and shows irregular trajectories.
- c) Aneurysms increase the appearance of small loops with biphasic waveforms and orbital irregularities.

Related Works

[1] JST Tohoku University New Technology Briefing July 27, 2021
https://shingi.jst.go.jp/pdf/2021/2021_tohoku_1.pdf

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