trublu® calibration device

With the aid of the new trublu® calibration device, all sensors of the pedar® posturo system are individually calibrated using a known air pressure. This procedure is computer-assisted and can be performed in a short time.
Calibration guarantees accurate and reproducible data. The calibration curves, one for each sensor, can be checked by the user at any time.
This method guarantees the accuracy of the absolute values measured, not only for the distribution of dynamic body weight, but also for the local load on each area of the feet.
All sensor mats come calibrated and calibration can be tested at any time.

trublu®
calibration device

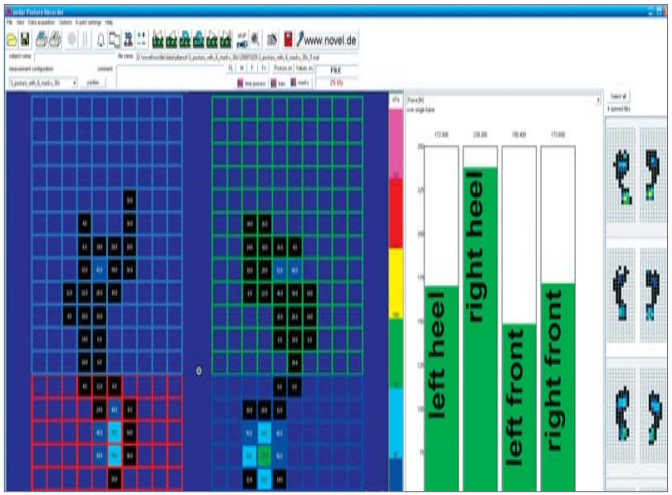
pedar® posturo sensor mats

number of sensors	10x22 each
sensor dimensions (mm)	20x20 each
weight (gr)	500 each
pressure range (kPa)	10 - 400
frame rate (Hz)	40

pedar® posturo system

Applications of pedar® posturo system

- neurology
- orthopaedics
- osteopathy
- aid in orthotic design
- rehabilitation assessment
- sport biomechanics
- biofeedback



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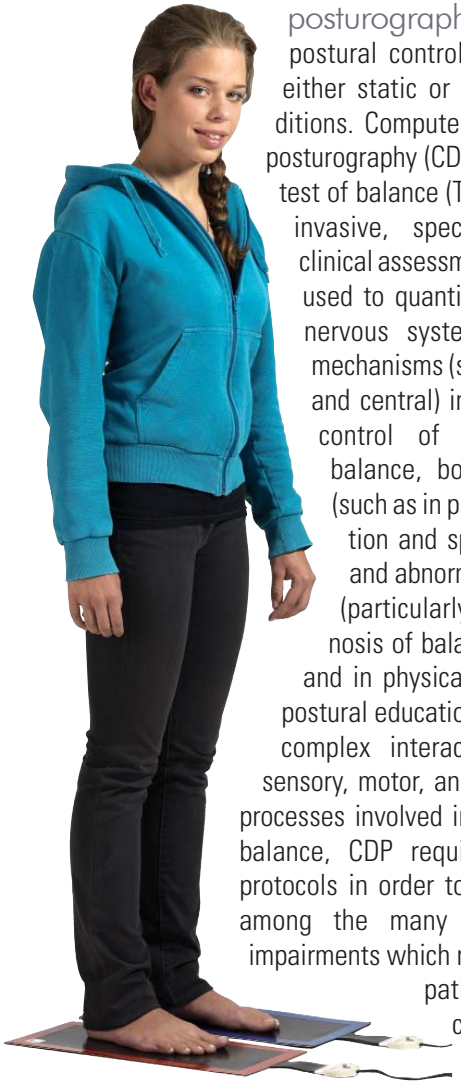
art in science

pedar® posturo system

The innovative pedar® posturography recording and analysis system



posturography quantifies postural control in stance in either static or dynamic conditions. Computerized dynamic posturography (CDP), also called test of balance (TOB), is a non-invasive, specialized, new clinical assessment technique used to quantify the central nervous system's adaptive mechanisms (sensory, motor and central) involved in the control of posture and balance, both in normal (such as in physical education and sports training) and abnormal conditions (particularly in the diagnosis of balance disorders and in physical therapy and postural education). Due to the complex interactions among sensory, motor, and also central processes involved in posture and balance, CDP requires different protocols in order to differentiate among the many defects and impairments which may affect the patient's posture control system.

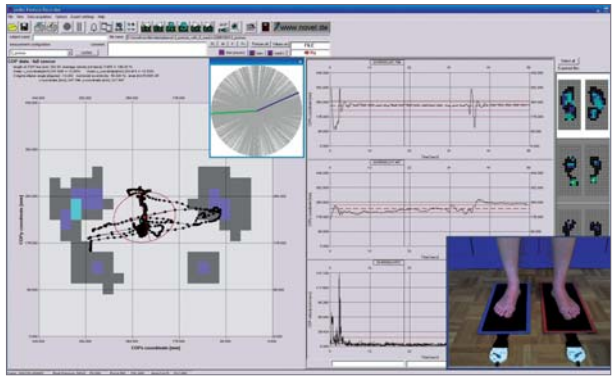
pedar® posturo software

Regular posturography systems measure the time course of the Centre of Force (CoF). The shift of the CoF in the x and y direction over time is only calculated from the total force measured under both feet and does not describe the exact participation of each foot.

By measuring the pressure distribution underneath the feet the pedar posturo system allows not only to measure the force balance between the left and the right foot but also to determine which part of the foot is contributing to the balance.

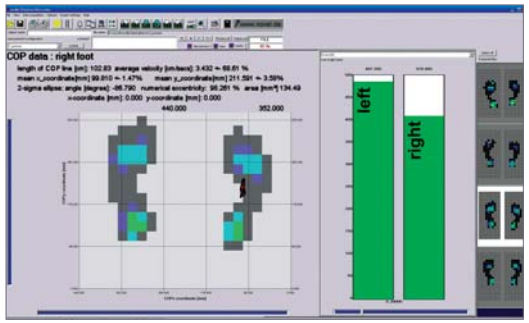
This is possible because the forces are calculated from many sensors arranged in a sensor matrix. Local forces such as those under the forefoot or toes and the heels can be measured and it can be analyzed how much they contribute to the dynamic balance of the body.

The pedar posturo software calculates many parameters such as CoF/CoP, forces in masks, time processes, direction of motion, numerical excentricity, area of CoF/CoP motion and more.



pedar® posturo software

It is also possible to track the CoP of each individual foot in bipedal stance mode to analyze the motor function individually and compare it with unipedal stance.



pedar® posturo hardware

The pedar®-x posturo system is an accurate and reliable pressure distribution measuring system for monitoring local loads and total forces. The pedar®-x offers the ultimate versatility with its multiple standard features and operating modes.
The pedar®-x can be tethered to a PC via a fiber optic/USB cable. It can also function in a mobile capacity with its built-in Bluetooth™ technology or, as yet another alternative, the pedar®-x system's built-in flash memory storage allowing data to be collected anywhere and later downloaded to the computer.
The pedar®-x can be used not only for posturography but also for mobile pedography.
The pedar®-x system allows multiple synchronisation options to use with EMG and video systems.
The pedar®-x can be started and synchronised by a small wireless remote control.