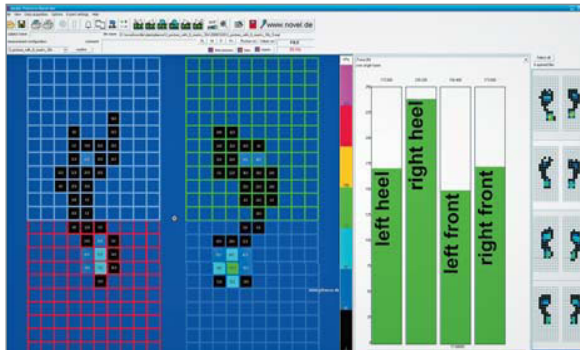


technical data

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



monitor screening

## Applications of the posturo system

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



trublu® advice

With the aid of the new trublu® calibration device, all sensors of the 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 validates 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.

novel gmbh (Germany) • Ismaninger Str. 51 • D-81675 Munich  
 tel: +49 (0)89-41 77 67-0 • fax: +49 (0)89-41 77 67-99  
 mail: novel@novel.de • web: www.novel.de

novelectronics inc. (USA) • 964 Grand Avenue • St.Paul, MN 55105  
 tel: +1(651) 221-0505 • fax: +1(651) 221-0404  
 mail: novelinc@novelusa.com • web: www.novelusa.com

MG Atzori Consultants Ltd • 113, Arnold Road • Nottingham, NG5 5HA  
 tel/fax: +44 (0)11 59 62 26 22 • mail: noveluk@novel.de

All systems from novel operate with high quality, calibrated sensors and provide reliable and reproducible long term measurements. emed®, pedar®, pliance®, trublu® and the novel logo (coloured foot) are the registered trademarks of novel gmbh © 1992-2015

art.  
science®

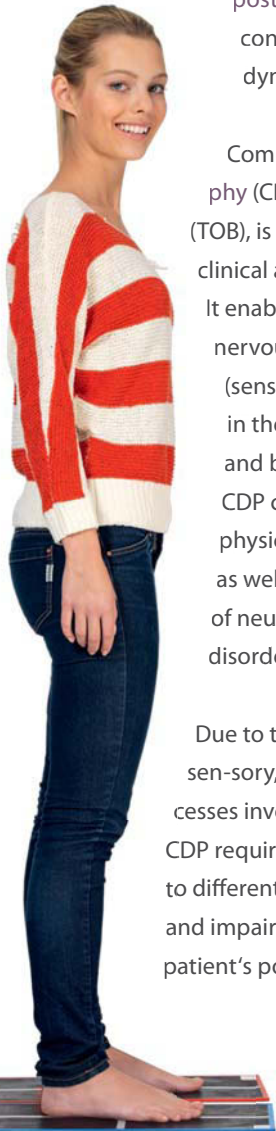


novel.de



# posturography

## The innovative posturography recording and analysis system



posturography quantifies postural control in stance in static or dynamic conditions.

Computerized dynamic posturography (CDP), also called test of balance (TOB), is a noninvasive, specialized, new clinical assessment technique. It enables quantification of the central nervous system's adaptive mechanisms (sensory, motor and central) involved in the control of posture and balance. CDP can be used in orthopedics, physical education and rehabilitation as well as in the diagnosis and therapy of neurologically-based movement disorders.

Due to the mutual interference of 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.

# posturo software

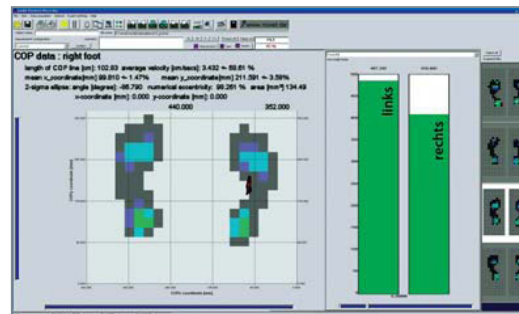
Regular posturography systems measure the time course of the Centre of Force (CoF). However, the shift of the CoF in the x and y direction over time is calculated from the total force measured under both feet and does not describe the exact participation of each foot.

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 heels can be measured, hence allowing to analyse how much they contribute to the dynamic balance of the body.

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

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



Left/right balance

# posturo hardware

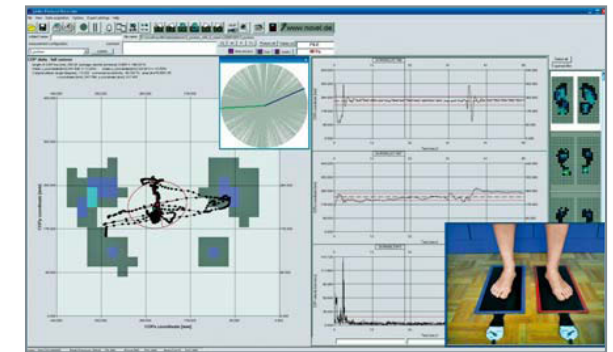
The posturo system is an accurate and reliable pressure distribution measuring system for monitoring local loads and total forces. The pedar® offers the ultimate versatility with its multiple standard features and operating modes. The pedar® can be tethered to a PC via a fiber optic/USB cable.

It can also function in a mobile capacity with its built-in Bluetooth™ technology or, as yet another alternative, the pedar® system's built-in flash memory storage allowing data to be collected anywhere and later downloaded to the computer.

The pedar® can be used not only for posturography but also for mobile pedography. The pedar® system allows multiple synchronization options to use with EMG and video systems. The pedar® can be started and synchronised by a small wireless remote control.



posturo analyser



The course of point sensors