

Gold Standard in Occlusion Control - OccluSense® by Dr. Jean Bausch GmbH & Co. KG

While attending the 2019 IDS I had the opportunity to get direct knowledge of the most advanced instruments, devices and appliances for dental practice.

At the stand of Dr. Jean Bausch GmbH & Co. KG, the owner of the company, André Bausch and his daughter, presented to me and my father the new OccluSense® BK 5000 system for instrumental occlusal analysis. The OccluSense® system combines traditional and digital recording of the distribution of masticatory forces on occlusal surfaces. Experts in printed organic electronics supported Dr. Jean Bausch GmbH & Co. KG, manufacturer of occlusion testing materials, from the initial product idea to the final production of customized flexible sensors for each dental practice for digital occlusion control.

The September 2019 Digital Future of Dentistry Technology Expo organized at the ADA FDI World Dental Congress in San Francisco selected Bausch's OccluSense® as a winner of the Best of Class (BOC) technology awards in the Emerging Technologies category.

Compared to the well-known T-Scan (Tekscan, Inc., South Boston, MA 02127, USA) whose pressure sensor is 100 microns, the OccluSense® sensor is very flexible at only 60 microns, and is additionally covered in red. Established color transfer on occlusal surfaces facilitates the allocation of recorded data. The data can be displayed graphically 2- and 3-dimensional, including the distribution of the masticatory forces recorded digitally.

The OccluSense® system can be used by any dentist, because occlusion control is a routine in everyday practice. The system consists of a portable device, an inductive charger, a test sensor and a 25-sensor box presented in a storage and transport box.

The very flexible sensors on plastic substrate are only 60µm thin and allow the recording of all the masticatory forces at 256 pressure levels. The thin and flexible material allows the recording of both static and dynamic occlusion. Due to their color coverage, it is possible to assign them to the contact points on the patient's teeth.

The chewing forces are covered by the sensor and recorded by the hand-held battery-powered device that transmits the recorded data wirelessly into the OccluSense®-iPad application. The inductive charger provides wireless power transfer. Fully charged batteries allow the device to be used for up to 4 hours.

The novelty of the OccluSense® System is the digital representation of the occlusal points and associated stress loads, which could cause various symptoms, such as headaches, neck pain, shoulder pain, light hypersensitivity, bruxism or swallowing difficulties.

In everyday dental practice, documentation and storage are all the more important, as we talk more and more about evidence-based dental medicine. The app saves each shot automatically so that it is easy to make comparisons.

The OccluSense® System can be used in various fields of dentistry, including functional diagnostics, dental technology and osteopathy.

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<https://www.occlusense.com/occlusense?lang=en>



OccluSense® handheld device and inductive charger.



OccluSense®, Electronic Pressure Sensor.



OccluSense® system with a convenient suitcase.



The occlusal recordings on the display.

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