



## **Roshchin Evgeny Mihailovich**

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**The use of new generation equipment in functional diagnosis, treatment planning for individual parameters**


Using of additional equipment allows individual to have information for functional treatment planning. The development of digital technologies in the dental practice allows to lead high precision complex diagnostics: get CBCT data, 3D cephalometric analysis, analyze occlusion on virtual models, register individual movement trajectories and finally combine all the data for individual treatment plan. We developed new optical axiograph to analyze violation of lower jaw articulation. It is based on the work of only one camera. Dentograf allows registration of lower jaw movement trajectories for patients with any occlusal pathology. Especially for patients undergoing orthodontic treatment new markers were developed, which mounts only on one tooth. Dynamic parameters of movement can be combined with CBCT for individual diagnosis. Combining static and dynamic data in a single software may predict treatment and conduct a dynamic analysis of its stages. Quite often, in the planning of a complex treatment, we use advanced calculations-cephalometric analysis and subsequent calculations were used in the treatment. We developed dynamic cephalometric analysis for doctors to plan how this

calculations will influence the treatment or if it is possible to change lower jaw position For the analysis of muscle tension, we have developed a new wireless electromyograph and combined it with axiograph. This greatly increased the accuracy of treatment in complex clinical situations such as total prosthetic reconstruction with the use of implants. It also improved treatment associated with a reduction of the lower facial height in patients with TMJ dysfunction.

### **Speaker Biography**

Roshchin Evgeny Mihailovich graduated from the Moscow State University of Medicine and Dentistry in the year 2004. He went on to do higher studies and became a prosthodontist, orthodontist dentist. In 2011 he was awarded the academic degree-PhD. Since 2010, he has been engaged in their own research. He has been the Author of 15 patents. In 2013, he became the Director of Prosystem. The company is engaged in the development and manufacture of equipment for functional diagnostics, as well as the development of software allowing patients to carry out a comprehensive analysis on the previously obtained axiography data, computed tomography and electromyography. In 2016, the company has developed a new sensor that allows people to record the presence of bruxism in patients during sleep.

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