

A dental microscope is in many cases indispensable

ZEISS EXTARO 300 and ZEISS Connect



Are you using X-Ray-Films? Or hand-written notes on diagnostic findings and treatments on file cards?

You have probably been using digital technologies for these processes for some time now. Just like in everyday life, digital devices, computers and networks simplify our work life enormously. In the dental practice, **digitization has been evolving its full potential for a few years**. X-rays are now done three-dimensionally, CAD/CAM processes are used in practice, and paperless practice is already reality in many cases.¹

What's special about it: **Digital technology** can be used within your practice to combine individual components into one integrated system, allowing the data to be transferred, archived and used at various points, such as for treatment planning or patient communication. This makes the processes easier for you, as well as more controllable and traceable. The ability to repeat processes **provides greater safety and increases quality**, and it also **enhances value creation in your practice**.

When it comes to the use of digital systems in the dental practice, the question is no longer whether a digital workflow can be implemented in the practice but how to achieve this optimally. After all, without digital procedures, it is inconceivable for many processes in a practice to be economical.

Precise Diagnosis. Clear Communication.

An **important part of the digital setup in a practice is the dental microscope**² such as the EXTARO® 300 from ZEISS. It supports various processes, and this already begins when preparing the diagnosis. First of all, the three-dimensional X-ray image provides an idea of the spatial relationship between teeth and roots as well as with the periodontium. Using the microscope facilitates the creation of stable composite restoration and helps preventing secondary caries, marginal staining or cracks². **The operating microscope enhances the dental surgeon's vision so improving treatment outcomes not only in specialist fields, but also in many of the disciplines which general dental practice encompasses.**^{3,4}

Using the **ZEISS Connect App**, the images and videos from the ZEISS EXTARO 300 dental microscope can easily be streamed to the iPad, where they can be viewed and stored. This also allows the microscope to provide an important service for patient communication.

Magnification is the key⁵: The enlarged representation of the oral situation helps to detect caries and/or demineralization of teeth that should be treated at an early stage. The magnification not only improves the diagnostic abilities, it even makes it possible to consider treatment options that would otherwise not have been feasible.

Like Robert Kalla et al.⁶ shows, by seeing the destructive events of pathological processes in their own body usually improves the compliance of the patient. In addition, the finished reconstructed areas often experience better and more efficient care than was the case with conventional processes.

Successful treatment. Safe documentation.

When it comes to treatment plans and implementation, a dental microscope is in many cases indispensable. For some years now, **microscopes have been used increasingly to detect carious and periodontal changes and treat them at an early stage, ensuring a minimally invasive manner**⁷. Of course, the dental operating microscope has become a fixed component of endodontic practice. This is because it relies on as precise a representation of teeth and their root canals as possible. **There is sufficient evidence of microscope use raising the success of treatment compared to treatments without visual aid**⁸.

The ZEISS EXTARO 300 together with the ZEISS Connect App provides support with its digital documentation.

In addition to X-ray images and extra-oral photos, all images taken with the microscope (photos and videos) can be simply and quickly integrated into the electronic patient file. Cumbersome transfers using USB sticks or even print-outs are a thing of the past. Useful bonus effect: the data is available with just a few clicks during each treatment.

Literature

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