FEATURES OF USING MICROSCOPE IN DENTISTRY

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Technological advances of the last decade used in dental practice include methods of using optical magnifying devices

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According to literature data, 34% of surveyed specialists use optical magnifying devices in their work. Of these, 20% use a magnifying glass, 10% use binocular glasses, and only 4% use an operating microscope. Consequently, most dentists work without visualization tools

A dental microscope allows you to treat teeth under magnification from 3 to 20 times. At the same time, it illuminates the working area so that the smallest details are visible. A dental microscope is a high-tech piece of equipment that looks similar to a desktop stereo microscope, but has a number of additional features. It is usually mounted to a wall or ceiling using a movable arm so that it can be moved above the patient's head while they are lying in the dental chair and provide a clear view

of their mouth.

The dental operating microscope provides:

- Wider field of view

- Deeper depth of focus

- Excellent mouth illumination.

In dentistry, a microscope is used for:

- Patient examinations

- Preparation of root canals for filling

- Prosthetics with veneers

- Treatment of periodontal diseases

- In maxillofacial surgery

- When using implants.

The use of a microscope allows for better restorations to be carried out under a microscope due to the accuracy of diagnosis and the correct completion of treatment stages. An enlarged image of the surgical field allows for more correct preparation of the carious cavity, complete removal of the remains of softened dentin, and high-quality installation of matrices. Correctly recreate the morphology of the occlusion, macro and micro details and surface texture of the restoration. Remove air voids, contamination and excessive contours.

The principles of minimally invasive dentistry are currently a priority for dentists. And this is easiest to achieve with magnification. Early detection of initial forms of carious cavities is impossible without magnification. Also, complete removal of old filling materials may be possible using a dental microscope.

With the help of such equipment, the dentist can see the most difficult to reach places. Due to the fact that the microscope is equipped with xenon and halogen lamps, the required area is illuminated as well as possible, and there are no shadows. The most optimal conditions for treatment are created.

When using a magnifying device, dental treatment is performed with four hands. The doctor looks through binoculars without getting tired or overworked, and the assistant helps him by giving him the necessary tools. Some high-tech dental microscopes are equipped with cameras to create an electronic patient record.

Another undeniable advantage of the device is that its use avoids leaving instrument fragments in the tooth canal.

Therefore, the use of a microscope in dentistry is an important part of dental treatment. And every dentist must master the treatment method using this high-tech equipment.

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