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MoraVision[™]3D vs Microscope



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Category	MoraVision	Microscope	Comments
Magnification	16x	20x-25x	It is very difficult to work with magnifications higher than 16X
Illumination	Coaxial Lighting	Coaxial Lighting	Shadow-free operating field
Depth of Field	3.5 mm at 16x	1mm at 16x	
Width of Field	Wide	Narrow	
Light Scource	Low Intensity LED	High Intensity Halogen, Xenon, or LED	High intensity Lights are blinding and hot
Orange Filter for Placement of Composites	None: Not needed	Must have an orange filter to prevent Composites from polymerizing while placed.	The orange filter distorts the perception of color when placing a composite.
Foot Switch	Included for Zoom and fine focus		The foot switch is a productivity tool designed to maximize the efficiency factor of working under microscope magnification
Foot Switch Design	Ergonomic and intuitive	Unergonomic and Unintuitive	
Viewing of the Operating Field by the Doctor	Doctor's 4K 3D Video Monitor	Microscope Occulars	MoraVision provides the operator with freedom to work comfortably without leaning and craning over the patient and without holding still for extended periods of time.
Viewing of the Operating Field by the Assistant	Assistant's 4K 3D Video Monitor	Naked eye, Loupes, Coobsevation tube, or 2D Monitor.	With MoraVision, the assistant can see the operating field exactly as seen by the doctor and in 3D with accurate depth perception

Envelope of Angular Viewing Range	180° Spherical Cone	17°-20° Spherical Cone	The Angular viewing range of a microscope is limited by the flexibility of the doctor's postural limits. The eyes of the doctor which are connected to the spine have to be placed on the oculars of the microscope in order to see. This forces the doctor, assistant, and patients to assume very <u>uncomfortable</u> positions during treatment. MoraVision provides the freedom of Posture Independent Viewing of the of the oral cavity by extending the angular positioning of the MoraScope [™] to a 180° sphere around the oral cavity while the operator is sitting comfortably and looking straight ahead at the 3D TV Screen.
Sitting Position for the Doctor	12 oʻclock	10 o'clock	It is very difficult to access all areas of the oral cavity from the 12 o'clock position without getting the head of the patient far down in uncomfortable positions. With MoraVision there is no need to seat the patient in severely uncomfortable and variable positions specific to each tooth.

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Category	MoraVision	Microscope	Comments
Sitting Position for the Assistant	3 o'clock	1-4 o'clock	
Patient Positioning	Comfortably seated with the head at bout 20° or more above a supine position	Supine position or placing the patient's head at a negative angle. Very uncomfortable	Active defensive swallowing reflexes, chocking on saliva, and patient discomfort are common with microscope extreme positioning. With MoraVision, the patient does not need to lie back that far.
Documentation	Capture HDMI Video/Stills/ Voice Directly into Computer. WYSIWYG. No peripherals can be added to the MoraScope	Needs Beam Splitter, Video Tube, Photo Tube, Cameras, flash, etc	Microscope peripherals are expensive and heavy, throwing the microscope off balance. Getting good photos and videos with the microscope is a big challenge.
Bulk and Weight	MoraScope is small and light	Microscope is heavy and bulky	The MoraScope weighs 7 lbs
Suspension system	Light and small	Heavy and Huge	The MoraScope's suspension system weight around 30 lbs.
Installation	Easy with 4 configurations	Complicated and Expensive	No need for costly installations requiring structural reinforcement of walls or ceilings to mount the heavy microscope. MoraVision uses the weight of the dental chair to provide the counter balance for the suspension system either by using a special baseplate that slides under the back of the dental chair, or by using a special clamp to mount the arm to one of the attached posts to the dental chair, or to an ASI cart, or it can be mounted on a mobile base.
Learning Curve	Short and intuitive	Steep and frustrating	
Visual Patient Education and Anxiety Control	3D HMD (Head Mounted Display) offering unrestrained head position and continuous visual control of the operating field	2D Monitor with Fixed head position	Patient education through real time visual control provides the patient with the actual information about the procedure being performed and eliminates the fear of the unknown. This is the best way to cultivate compliance and loyalty based on verifiable trust instead of blind trust.
Dental Education	Interactive and Scalable 3D teaching model	2D teaching model	MoraVisions clinical 3D teaching model can make clinical learning 75% more efficient.
Musculoskeletal Problems	Healthy Posture with Posture Independent Vision	Unhealthy restrained posture with Posture connected vision	MoraVision promotes a healthy working posture for the dentist and assistant thus improving productivity while greatly reducing muscle strain, pain, risk of disability, and extending the professional career of the dentist.
Cost	\$40,000.00	\$25,000-\$85,000	Still, no microscope can provide all the combined benefits of MoraVision for any price.





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