

Using the Modern and Highly Efficient Erbium Laser to Remove All Ceramic Veneers and Crowns

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SUMMARY

A person's smile is critical for people's perceptions. A warm, genuine smile communicates feelings that words alone cannot convey. A great, confident smile radiates warmth and allows people to feel at ease and makes a great first impression. A smile transmits confidence and professionalism.

Aesthetic dental medicine is improving, and thanks to our many years of experience and the fast technological progress of non-invasive or minimally invasive dental methods and materials, we can ensure painless and top-quality aesthetic solutions that will give you the smile you have always wanted.

For many years, porcelain veneers and crowns have provided clinicians with a method for changing a patient's smile almost instantaneously. While porcelain veneers and crowns are quite strong, they will not last forever. In some case veneers require replacement due to caries, fractures, or leakage or simply because the patient is unhappy with the esthetic outcome.

While many procedures in dentistry can be accomplished with traditional methodologies, there are several instances where the use of a laser allows for the procedure to be quicker, easier, safer, or even just simply possible.

Erbium YAG lasers can be used for efficiently, safely, and predictably debonding all ceramic veneers and crowns while also keeping them in one piece.

Enhanced Hydrophilicity of Dental Implant Surfaces Through the Use of PIPS®/SWEEPS® - Achieving Successful Primary Implant Stability and Accelerated Osseointegration

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SUMMARY

Dental implants generally contain hydrophobic surfaces that can prevent blood clot formation, complicating implant surgery through delayed healing and/or dis-osseointegration.

Ogawa et al. proposed and developed an ultraviolet array technique transforming the dental implant surface from hydrophobic to hydrophilic. Many clinicians around the world now use this surface modification method.

Our previous clinical work on peri-implantitis suggests that Er:YAG laser irradiation on dental implant surfaces can be effective in removing subgingival calculus, promoting LPS detoxification, and sterilizing the implant surfaces while at the same time also achieving hydrophilicity.

We would like to report our new research findings on the enhanced hydrophilicity of dental implant surfaces, not by direct Er:YAG laser irradiation, but through the Photon-Induced Photoacoustic Streaming (PIPS®) and SWEEPS® (Shock Wave Enhanced Emission Photoacoustic Streaming) techniques, delivering better osseointegration properties.

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