Prevention of peri-implant disease by design and protocol

The incidence of prosthetic related peri-implant disease is on the rise. Abutment manufacturers must comply with Government and ISO Standards in order to sell their products in North America. These standards assume that the dentist will install these abutments according to manufacturer’s specifications and thus optimize the implant-abutment connection. The current screw-in prosthesis installation systems make it unlikely that dentists can consistently comply with these regulations. The basis of the problem rests in the fact that all dental models are inaccurate, and thus the prosthesis made to fit a dental model is also inaccurate. The screw-in installation technique dictates that the abutments are to be attached to the prosthesis on the dental model, before being installed into the mouth. The abutments are thus constrained by the inaccurate prosthesis, and their fit onto their respective dental implants cannot be optimized. It exposes our patients to the known “technique related” risk factor for peri-implant disease, known as the implant-abutment misfit or macrogap. Applying an intra-oral cementation step to the screw-in technique, can solve this macrogap and misfit problem. The technique involves the use of well-designed custom abutments, prostheses and supporting techniques that are sensitive to the Gingival Effects™ and precludes cement voids, overhangs and open margins.

Biography

Emil Svoboda has earned his BSc (1974), PhD (1978) and DDS (1982) at the University of Toronto. His undergraduate work involved general sciences including Bacteriology and Virology. His PhD research was supervised by Drs AH Melcher and DM Brunette and was part of the MRC group in Periodontal Physiology in the Faculty of Dentistry.

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