**Temporary Implant-Supported Restorations: A Prosthetic Concept**

**Introduction**

Bone possesses the capacity for functional adaptation due to its capability to respond to changes in loading with a remodeling of internal structure. Such bone adaptation after reentry operation of endosseous implants can achieve an optimum biomechanical situation as long as the loading forces are not excessive.

Temporary acrylic restorations are used to limit occlusal forces and to reshape the emergence profile of gingival tissue. FRIALIT®-2 ProTect flexible abutments are used at time of implant uncovering to produce temporary acrylic restorations. A procedure is described which is able to limit occlusal load transfer and allows to customize peri-implant soft tissue contour at stage II surgery.

**Chairside Temporary Crown**

Retaining screw placed in FRIALIT®-2 ProTect abutment for stabilization of provisional restoration

Acrylic crown on FRIALIT®-2 ProTect for customization of soft tissue emergence profile

**Influence of Crown Length on Bone Deformation**

Increasing height of crown enhances stress level of cortical bone level linearly

**Laboratory Fabricated Bridge**

Temporary bridge restoration with FRIALIT®-2 ProTect abutments: prefabricated plastic material of ProTect in soft tissue contact

Temporary restoration stabilizes occlusion but limits transversal forces

**References**


**Conclusion**

There are two decisive factors to prevent overloading and the resulting peri-implant bone resorption: Occlusal load and restoration-abutment flexibility. While occlusal load can hardly be limited, the transversal load transfer to the bone can be reduced by using acrylic restorations on temporary abutments. Only one third of the stress moments are created in the bone compared to standard titanium abutments of the same deflection at the occlusal plane. Besides biomechanical benefit the use of customized temporary crowns enables the clinician to manage the soft tissue in esthetically challenging cases. The poster presents a rationale to gradually load implants with a temporary abutment (FRIALIT®-2 ProTect) after the initial bone interface has been established. Short-term chairside restorations and long-term laboratory fabricated restorations are introduced for customization of the restoration emergence profile and ideal soft tissue adaptation.