



**Klausz Dental  
Laboratories Ltd.**

Working **harder and smarter** for your practice!

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## **An O.I.C.S. Specialty Laboratory** *Occlusion - Implants - Cosmetics - Sleep*

### **Custom Implant Abutments - Better Results by Design**

**At Klausz Dental Laboratories, we believe you deserve the very best in quality, with the most advanced designs possible. Our custom implant abutments have key features you may not find anywhere else.**

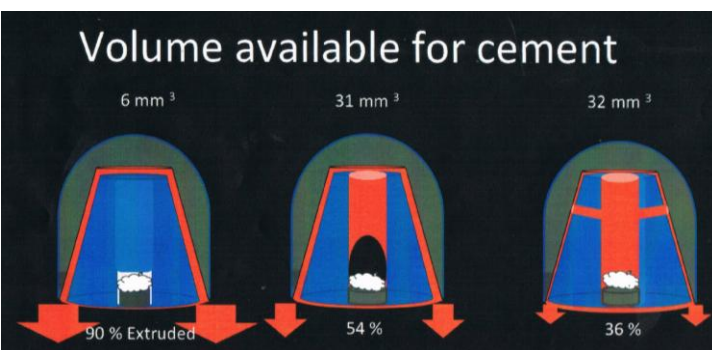
The advantages of cemented retained implant crowns includes improved aesthetics, better control of occlusion and contact areas, ideal margin positioning for a more accurate emergence profile, and in general, cementing implant restorations onto abutments more closely follows procedures routinely performed on natural teeth. However, cement retained implant restorations are not without their issues. Multiple case reports have cited excess cement, left in the subgingival sulcus area, can be a major cause of peri-implantitis.



Clinically, excess hardened cement, left below the tissue surface, can be difficult to detect and remove. It has been hypothesized that this cement can act as a seeding layer onto which bacteria can colonize. The amount of cement needed to cause disease has yet to be established, but it would seem reasonable that reducing the volume extruded to a minimum is advantageous.



In studies conducted by Dr.s Wadhvani, Pineyro, Hess, Zhang and Chung (In. J. Maxillofac Implants 2011;26:1241-1246) (In. J. Prosthodont 2013;26:54-56. Doi 10.11607/ijp.3069), it was found that, “Leaving the Screw channel open and venting the hollowed abutment with two vent holes placed 3mm apical to the occlusal area of the abutment and 180 degrees apart resulted in the least amount of cement extrusion, into the gingival sulcus of implant retained crowns, when compared to closing off the screw access channel or even just leaving it open”. Their studies suggest that the vents allow trapped air within the system to escape more readily or that the cement on the axial walls may have been pushed into the internal aspect of the access screw channel, further filling it.



Additionally, these vents act as an internal reservoir for cement that may otherwise be extruded through the abutment-crown margin. As well, leaving the screw access channel open with or without abutment venting improved the retention of the cemented coping. Placement of two vent holes significantly improved retention by altering cement flow within the screw access channel. Fabrication of implant abutments with some form of internal venting should be considered whenever a screw access channel exists.

This is why, at Klausz Dental Laboratories, all our metal custom abutments include axial wall vent holes.

Looking for ways to do things better is just another way we are, “Working Harder and Smarter for your Practice!”