Qualident Dental Laboratory

ADVANTAGES
- Metal to metal connection between screw and abutment, so superior fit of coping to the abutment
- Custom designed for the individual patient
- Have an anatomical shape
- Reduction the number of impressions
- Compatible with most implant systems
- Ability to create duplicate abutment
- Increase crown retention
- Provide the ideal coronal preparation
- Reduction of chair time

ESTHETIC ON THE TOP HYGIENIC BELOW

Computer-designed and -generated implant abutments will fundamentally change the present restorative protocols for implant dentistry. Standard implant prosthetic techniques rely on implant-level impressions and costly casting technology for component fabrication. Implant abutments generated by computer-aided design and computer-aided manufacturing (CAD/CAM) are more precise than those created using traditional casting technology. This increased accuracy has specific application to implant dentistry.

THE CLINICAL CHALLENGE: LONG-TERM TISSUE STABILITY

When designing an abutment, the position of the implant in relation to the final crown contour, the thickness and biotype of the surrounding tissue, as well as the location within the arch must be taken into account. For cement-retained superstructures, it has been established that the location of the abutment-crown margin should always be located at, or slightly below, the gingival crest to allow for the complete removability of cement. If remnants of the cementation medium remain, potential risk of peri-implant inflammation and adverse tissue reactions increase significantly.

Research has been conducted and some products brought to market with concave transgingival sections. The concept behind this design is that creating a thicker band of gingival around the abutment will stabilize the soft tissue and mask the gray color of the titanium abutment at the gingival margin. A potential challenge with this design is that removing or replacing the abutment would likely necessitate anesthetizing of the patient. The narrow neck design could also lead to thin, potentially weak abutment walls.

TITANIUM AND ZIRCONIA MATERIALS FOR CLINICAL USE

Titanium abutments provide a bio-compatible and clinically well-proven treatment option in areas where high strength is required or only limited space is available and is far superior to cast alloys. Today, zirconia is considered by many clinicians to be the material of choice for abutments. In addition to material properties that allow its application in any area of the mouth, the greatest advantage of ZrO2 is its unrivaled support of adjacent tissue. Zirconia observably enhances tight adherence of peri-implant tissues while minimizing bacterial and plaque adhesion at the same time. The key benefit of homogenous materials such as zirconia and zirconium is that their use eliminates material incompatibilities and corrosive phenomena arising from dissimilar metal alloys and interfaces between cast and machined components.