Not only has CAD/CAM technology been used for crown and bridge restorations, but it can also be used in the production of surgical guides, planning and fabrication of abutments and frame substructures.

CT based CAD/CAM surgical guides are custom made for each patient’s clinical situation, allowing highly accurate drilling and implant placement according to the digital surgical treatment plan. They can be fabricated to fit onto existing teeth, over the tissue, or rest on the bone. These surgical guides provide the seamless link between implant planning and actual treatment, insuring predictable implant placement.

The use of computer-aided design technology has also been used for the fabrication of custom abutments. Using specific designing software, the patient-specific abutments are individually designed from the final tooth shape to provide better margin placement and gingival tissue support whether the restoration is cement, screw or attachment retained. These abutments are available in zirconia, titanium, or gold-shaded titanium for many major implants system connections.

Enhancements to the milling technology have given rise to more accurate and precise CAD/CAM restorations. The benefit of CAD/CAM technology is that it allows the practitioner and dental laboratory the ability to produce aesthetic, well-fitting, prosthetic dental restorations very predictably and cost effectively.

Dr Ara Nazarian

Guest Editor