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WHAT IS CAD/CAM DENTISTRY BEHIND CEREC® Same Day Crown?

FOR DR. ROZE BIOHEALTH CLINICS | 13.06. 2022

BIODENTAL

CAD/CAM dentistry describes the software that makes it possible for us to perform complex restorations faster, more efficiently, and sometimes more accurately. Our specialists use CAD/CAM technology to construct restorations like crowns, inlays, onlays, veneers, bridges, dentures, and implant-supported restorations from high-strength ceramic.

1/- What is CAD/CAM technology

CAD/CAM dentistry describes the software that makes it possible for us to perform complex restorations faster, more efficiently, and sometimes more accurately. It means Computer Aided Design and Computer Aided Manufacturing. Our specialists use **CAD/CAM** technology to construct restorations like crowns, inlays, onlays, veneers, bridges, dentures, and implant-supported restorations from high-strength ceramic.

2/- What to expect from a restoration procedure using CAD/CAM

- **Tooth Preparation.** Your dental professional will prepare the site for your restoration by removing all decay or portions of the structurally unsound tooth.
- **Intraoral Scanning.** Next, an optical scanner will digitally capture the tooth preparation and surrounding teeth to create a 3D custom image.
- **Restoration Design.** With those 3D images, the dental professional will use the CAD software to design the final restoration.
- **Milling.** Next, a milling machine takes the design and **shapes the crown, veneer, inlay, onlay, or bridge** from a single block of ceramic.
- **Sintering and Polishing.** The restoration is stained or glazed to look more natural before being polished.
- **Cementation.** Finally, the restoration is permanently placed in your mouth to complete your smile.
- This whole process could take anywhere from 45 minutes to two hours, depending on the case's complexity. Still, CAD/CAM requires less time and effort than traditional laboratory methods.

3/- What are the benefits of using CAD/CAM technology

The use of **CAD/CAM technology** provides benefits not only for dental professionals but also for patients. Some of the significant advantages include:

- **Single-Visit Treatments.** Using traditional laboratory methods, your dentist or prosthodontist would prepare your tooth, make an impression, and send the

and send the impression to a lab to create the final restoration. With **CAD/CAM technology**, the dental professional can sometimes complete all these steps in a single visit, allowing for fewer disruptions in your schedule.

- **Digital Impressions.** If you've ever had a conventional impression, you immediately understand the benefits of a digital system. The traditional method requires the patient to place a tray with a thick, gooey material — called alginate — in their mouth and hold for two to five minutes until the material sets. A scanner is placed in the patient's mouth with digital impressions and moved around the affected area — like waving a magic wand.
- **Cost-effectiveness.** **CAD/CAM technology** eliminates several outsourcing costs for your dental professional, and these savings may be passed onto the patient. Be sure to ask about your options and the associated costs.

4/- What are the benefits of CEREC® coupled with CAD CAM?

CEREC® is a dental restoration system that allows us to produce ceramic restorations such as **crowns, veneers, onlays and inlays** using a variety of computer assisted technologies, including 3D photography and CAD/CAM.

CEREC® means:

- Chairside : a technology that can be done while you are in the chair
- Economical: restorations made right in the office
- Restorations : giving teeth natural beauty, function and strength
- Aesthetic – metal-free and natural tooth-coloured restorations
- Ceramic : high-quality ceramics close in composition to natural tooth structure

By eliminating the need for impressions, several injections, lab work, and return visits the entire **CEREC® 3D procedure** takes approximately 1 hour to perform. Restorations are natural-looking and extremely precise.

5/- How does CEREC® same day crown procedure works?

1. First of all, your specialist will work with you to determine the appropriate

treatment. We will then prepare the tooth for the restoration by removing decay and damaged material.

2. We will then take an optical impression of the prepared tooth. This procedure can be done very efficiently using the oral camera.
3. The images can then be made into 3D virtual models using the CEREC® software on the computer screen. The 3D image can be converted into a real-life, natural-looking, tooth-coloured ceramic restoration in the CEREC® milling station.
4. We will then fit the restoration into your mouth properly, securely and with perfect bite using a special bonding dental cement.

6/- What are the benefits of using CEREC for dental restorations

➤ Beautiful restorations that look and feel natural.

CEREC® is a highly reliable, state-of-the-art technology used to create tooth restorations such as crowns, veneers, onlays inlays, and bridges in a single visit. With CEREC® , we can design your restoration that looks beautiful and feels very natural.

➤ Your restoration in just one appointment.

With CEREC®, we are able to produce your restoration right in the office in less than 1 hour. There is no need to make any impressions or wear temporary products while your permanent restoration is created in an outside lab.

➤ The process is digital.

The CEREC® process relies on digital imaging to accurately determine the specifications of the restoration rather than dental impressions, eliminating the need to endure that sometimes unpleasant process.

➤ Restorations are made from the highest quality porcelain.

The strength that comes from milling restorations from a single block of ceramic porcelain makes it durable and resistant to cracks and flaws when chewing and biting. The ceramic material is anti-abrasive, plaque-resistant and responds like your natural teeth to changes in temperature. Also, this high-quality material is personally selected to match the natural colour of your other teeth.

➤ Recovery time is faster.

Restoring a tooth immediately after an invasive treatment means there is less irritation, the tooth structure is maintained and there is less chance of infection.

5/- Are CAD/CAM & CEREC® Dental Work & Right For You?

Not every tooth can be treated with CAD/CAM dentistry, so talk to our cosmetic specialist about your best options. Because precision and fit are essential for your restoration or prosthesis, our specialist may prefer using the conventional laboratory method for complex fabrications.



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To learn more about our cosmetic treatments