

5 WAYS ZIRCONIA CHANGES SINGLE-VISIT DENTISTRY



It took just one crown to forever change the way Clark Brown, DDS, will practice dentistry. Brown, of Implant Dentistry of Florida in Melbourne, Fla., said from the very beginning, every one of his zirconia crowns and bridges impressed him. But it was the first one that got him hooked.

“The first time I did a zirconia crown in the mouth, it had me,” Brown said. “I absolutely fell in love with the whole process and it made so much sense. The fits are amazing. The occlusal surface looks absolutely outstanding.”

CEREC Zirconia allows dentists to use zirconium oxide, a high-performance material with a high degree of flexural strength and biocompatibility. This provides several benefits to dentists. Here are a few.



1. TOOTH PRESERVATION

“Right away, you see that you don’t have to reduce as much tooth structure. That’s pretty important,” Brown said. “Anytime you’re dealing with tooth structure, especially with young patients, the closer you are to the nerve, the more likely they are to needing to have a root canal. Preserving their tooth structure is so important, both to me and to the patient.”

2. CEMENTING RESTORATIONS

Equally important, Brown said, was that CEREC Zirconia restorations can be cemented instead of bonded. Combined with preserved tooth structure, cementing allowed for exceptional results, with no patients returning due to sensitivity or in need of bite adjustments.

3. SIMPLIFIED WORKFLOW

The entire workflow is simple and exceeded Brown’s expectations. “Single-visit dentistry, in and of itself, is an extreme benefit to both dentists and patients,” he said. “On top of that, you add CEREC Zirconia and you get even more value. There’s less tooth reduction, less post-operative sensitivity, no bonding, and it’s high strength. That makes it my absolute first choice for posterior crowns.”

4. SINTERING AND GLAZING

Along with the release of the zirconia blocks came the CEREC SpeedFire – the world’s first CAD/CAM-controlled furnace that’s also the fastest sintering, glazing and ceramic firing furnace with the smallest footprint. The CEREC SpeedFire’s sintering and firing process typically takes just 10-15 minutes.

5. SERIOUS SPEED



Dr. Michael Skramstad of Orono Dental Care in Orono, Minnesota, has timed CEREC Zirconia process down to the minute. Let’s take a look at the numbers on the back of this page.

ZIRCONIA RESTORATIONS MINUTE BY MINUTE



START TIME: 9:30 A.M.

9:30 A.M. Anesthesia (articaine) administered | *6 minutes*

9:36 A.M. Pre-imaging of the prep arch, cutting out the tooth to be prepared, the opposing dentition, and the buccal bite | *5 minutes*



9:41 A.M. Preparation of the tooth for a routine crown | *15 minutes*

9:56 A.M. Tooth isolation via packing retraction cord or using a laser to isolate the tissue and preparation | *3 minutes*

9:59 A.M. Imaging the preparation and allowing the construction of the models to the model phase | *3 minutes*

10:02 A.M. Designing a full-coverage crown using biogeneric process | *8 minutes*



10:10 A.M. Milling the restoration using regular milling (faster times possible with fast milling) | *16 minutes*

10:26 A.M. Removing the sprue | *3 minutes*

10:29 A.M. Sintering the zirconia restoration on the dry cycle | *16 minutes*



10:45 A.M. Short cooling time – most of the cooling is built into the zirconia sintering process | *1 minute*

10:46 A.M. The restoration is polished | *4 minutes*

10:50 A.M. The zirconia restoration is mounted on a zirconia pin and glazed using Sirona SpeedGlaze | *5 minutes*

10:55 A.M. The zirconia restoration is run on a glazing cycle (optional, as only zirconia is able to be polished) | *9 minutes*

11:04 A.M. Short cooling time – most of the cooling is built into the zirconia glazing cycle | *1 minute*

11:05 A.M. Conventionally cement the restoration using a resin modified glass ionomer | *5 minutes*



11:10 A.M. Clean-up time | *2 minutes*

FINISH TIME: 11:12 A.M.

TOTAL ZIRCONIA RESTORATION TIME: 102 MINUTES, INCLUDING OPTIONAL STEPS

Ready to see how you can conduct zirconia restorations at your practice?
Contact your Patterson rep or learn more here.