

Obturating the complexities of the canal system is especially challenging in highly curved canals – where reaching the apical third with sufficient heat for warm vertical condensation can be daunting.

So when DENTSPLY Tulsa Dental Specialties introduced a solution for achieving dense, three-dimensional fills – even in the most highly curved canals – the challenge was on. The company invited clinicians to submit their most challenging endodontic cases involving curved, complex and just plain gnarly canals filled with the newly introduced GuttaCore[®] obturators.

THE GUTTACORE GNARLY CANAL CHALLENGE

GuttaCore is the world's first obturator with a core not made of plastic or other hard material – but with crosslinked gutta-percha. Crosslinking the polymers of gutta-percha gives it a subtle, flexible strength that retains its shape while heated. This allows the core to follow the canal anatomy and centrally compact its surrounding warm, flowable gutta-percha three-dimensionally throughout the entire canal system. Even with the crosslinked gutta-percha core's flexible strength, it is easy to remove like regular gutta-percha.

CASE STUDY





REAL CHALLENGES. REAL CASES. VOTED ON BY REAL CLINICIANS.

Participants in the GuttaCore Gnarly Canal Challenge submitted radiographs and brief case studies from their most challenging cases. The entries were posted online at www.guttacore.com, where fellow clinicians could vote for and share via social media their favorite – or gnarliest – case. Based on peer voting, monthly winners were selected throughout the challenge with a grand prize winner announced at its completion.

In writing about their submitted cases, participants penned descriptions like, "torturous S-shaped apex," "long C-shaped canal," "spiral curvature," and "sharp apical hook." And while the competition brought out the worst in canal anatomies, it brought out the best in clinicians.

Gnarly Canal Challenge Grand Prize Winner Michael P. Thompson, D.D.S., of Phoenix, Arizona, had primarily relied on warm vertical for eight years when he joined the Gnarly Canal Challenge.

"I had already begun using GuttaCore, but it was new to my hands," he said.

These days, he doesn't tackle curved canals without it.

"In cases like these, it's absolutely essential."

In his challenge case, Dr. Thompson's patient presented with symptomatic irreversible pulpitis/symptomatic apical periodontitis of tooth #19. The mesial buccal and mesial lingual canals converged near the apical third. The distal buccal and distal lingual canals merged into one distal canal.

Dr. Thompson pre-flared the canals with ProTaper® Universal SX and S1 files and determined working length of 20.5 mm in all canals. After creating glide paths with a full sequence of PathFile® files and shaping with Vortex Blue® rotary files to size 20/.04, he began his irrigation protocol. This included QMix® 2in1 irrigating solution as a final rinse activated with an EndoActivator®.



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"The key is disinfection," he said. "This is essential to modern endodontics. Leaving the smear layer behind is just not an option for me."

Dr. Thompson used one GuttaCore obturator in the distal canal and two in the mesial canals.

He said the hydraulic pressure created by the obturator's core is ideal, pointing out "a little lateral canal on the distal that lit up upon placing the obturator."

"These are great products and hopefully more endodontists can learn about them," he said. "Endodontics will be better for it."





Another Gnarly Canal Challenge contestant, Brad Gilmer, D.D.S., of Columbus, Ohio, said he was "basically exclusively using GuttaCore" when he accepted the Gnarly Canal Challenge.

His challenge case involved a patient with irreversible pulpitis in tooth #19. Dr. Gilmer gained access with a #2 round burr and established working length: 23mm for the distal buccal and distal lingual; 25 mm for the mesial buccal and mesial lingual. All four canals had a curve of approximately 75 degrees. After instrumenting with Vortex files and irrigating, Dr. Gilmer prepared his GuttaCore obturators.

Dr. Gilmer noted his radiograph shows an accessory distal buccal canal clearly filled by his GuttaCore obturator. But that's not all he appreciates.

"Once you've seated the obturator, the handle just bends off," he said. "On an anterior tooth where I'm putting a post in, it's definitely easier to create post space without a plastic carrier."

He believes the benefits of GuttaCore translate to his patients, as well.

"The process of my file system and obturator is really efficient, so I can regularly put the crown on the tooth the same day as the root canal," he said. "The patient appreciates the one-day procedure."

To learn more about GuttaCore obturators or to schedule an in-office demonstration, please contact your DENTSPLY Tulsa Dental Specialties representative.

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1.800.662.1202 For the latest information consult www.TulsaDentalSpecialties.com



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