



Here are some recent reviews from our patients at Zumbro Valley Endodontics that we've received since our last newsletter. Please feel free to explore over 900 patient reviews on our website: ZumbroValleyEndo.com or 300 5-star reviews on Google.

My daughter had a sport-related tooth trauma which needed to be evaluated for a possible root canal. Walking into this beautiful office and being greeted immediately put us at ease. Dr. Anderson was fantastic! He made my daughter feel very comfortable, he explained all possible scenarios thoroughly and was able to answer all of our questions. We never felt rushed. We believe we came to the best solution for her care. I highly recommend Zumbro Valley Endodontics!-----Jessica

I was blown away by the care I received not only during my procedure, but in the days following! They were very professional, all while remaining friendly and fun. After some extra pain due to previous infection, the dentist personally messaged the following two days to check how I was feeling - I've never had anyone do this before! I will always recommend Zumbro Valley Endodontics!-----Riley

No one looks forward to a root canal. I have a medical history which makes dental procedures in general a challenging experience. I was amazed how well this procedure went. I definitely will return to Zumbro Valley Endodontics if I need a root canal in the future. -----Jackie

I have been treated at Zumbro Valley Endodontics on at least two other occasions. Both exceeded all expectations! This time was the best ever! Polite, professional, caring, and complete in every way. Still amazed at how all the staff work so well together, and how everyone turns what "used to be" not pleasant situation into an experience one wants to remember. I recommend ZVE to anyone who requires professional dental service. ----John

ROOT NEWS

SUMMER 23

Join us for our Summer Shindig!



AUG 23
11AM-3PM

All dentists and staff are invited to our first annual Summer Bash at the Iron Butterfly Flower Farm. Feel free to come by for lunch, or hang out for a while. There will be food trucks, desserts, prizes, and lawn games to play! I heard there is even some sort of inflatable for adults?

LEADERSHIP ROLES



Dr. Majerus continues as Adjunct Faculty teaching endodontics at the University of Minnesota School of Dentistry. She is an examiner for the endodontic residents in their oral examination process.

Dr. Regan Anderson is serving as the Immediate Past President of the Minnesota Association of Endodontists. He is collaborating with a board certified oral radiologist on a two-day CE course at the University of Minnesota that will be available in 2024.

Dr. Divine is a Trustee of the AAE Foundation for Endodontics. She is the Vice President of the ZVDS Executive Board this year. She also teaches endodontics as Adjunct Faculty at the University of Minnesota School of Dentistry.

EMERGENCY APPOINTMENTS AVAILABLE:

With our expanded schedule, we have been able to redesign our patient flow to benefit our community of referring doctors and patients. Whereas in the past the demand for our care made it difficult to see all patients right away, we are now able to save several emergency slots every day! Please reach out with patients who need our care, and chances are good we will be able to get them in immediately, especially for emergencies. This serves patients and helps our referring doctors keep their schedules less chaotic!

FRIDAY APPOINTMENTS

We have expanded our hours to better serve your patients. Now that we are open on Fridays, we can treat patients five days per week, and it should improve our ability to see emergency patients promptly.



BOTOX

Botox treatment for patients with bruxism: We continue to have success in adjunctively treating patients with bruxism using Botox injections. We focus these injections on prevention and symptom relief for these patients. This can help with limiting damage to teeth and restorations, as well as to relieve tension, headaches and chronic pain.

SINCE YOU LAST



Dr. Divine and her husband welcomed their second child, Benjamin.

Our team got together to celebrate Megan's upcoming wedding! We had a great time making wooden floral arrangements facilitated by Crystal's sister.



Dr. Regan Anderson gave a talk attended by residents and faculty about etiology, diagnosis and treatment of dental resorption at Mayo Clinic.



Dr. Majerus is relishing her time in the sun developing her flower farm, Iron Butterfly Flower Farm. Her flower CSA is sold out for this year, hopefully more spots will be available next year.

NEW TECHNOLOGY



"NEW TECHNOLOGY: PIEZOELECTRIC SURGICAL INSTRUMENT IN ENDODONTICS" by Deb Majerus DDS, MS.

Some of you may be familiar with the use of ultrasonics in irrigation of root canals. Passive ultrasonic instrumentation of the root canals is effective due to the streaming effect created in the fluid within the canal, as well as the creation of bubbles which implode (cavitation) creating turbulence within the canal which helps to remove biofilm adherent to the canal wall and to displace debris from canal irregularities.

The piezoelectric surgery unit also relies on cavitation, but in a unique way. With continuous irrigation of the surgical tip, the surgeon applies only minimal pressure to the bone, allowing the ultrasonic energy and irrigant to do the work, cutting via fluid cavitation at the interface with the bone. This also creates tiny gas bulla in the blood vessels resulting in microcoagulation, 25-30% less bleeding during surgery, and greater visibility. It has also been suggested that cavitation is antimicrobial by disruption of the cell walls. Piezoelectric tips can also be used for curettage of the lesion while keeping it more intact, causing less bleeding, allowing for better visualization of the tissue biopsy, and potentially less recurrence by reducing or eliminating tissue tags left behind.

When the tip encounters soft tissue the drop in resistance stops the instrument. If the operator continues to apply more force and try to cut, in the worst case the neurovascular sheath can be mechanically damaged, but the nerve is not cut. The ability to lift the Schneiderian membrane from the floor of the sinus without perforation, can also allow for surgical access to the palatal root tip, a transantral approach. Endodontists can also utilize guided tissue regeneration during surgery by placement of a bone graft and membrane, and could incorporate a sinus lift into this procedure in appropriate case selection.

The piezoelectric device is less traumatic to the bone during cutting, with less damage to osteocytes, less necrosis of bone, and fewer pro-inflammatory cytokines. There is early release of BMP-4 and TGF-β2, and neo-osteogenesis was consistently more active after piezoelectric surgery. Patients tend to have less swelling and need fewer analgesics. One of the main drawbacks to using this technology is the additional time and cost. It does take longer to cut the bone or root end with piezoelectric tips, but the improved visibility and hemostasis may help make up for some of that time lost.

In conclusion, this technology enables us to perform surgery near vital structures with greater safety and ease. It is more gentle on the bone and osteocytes and allows us to preserve cortical plate. It results in less postoperative swelling, inflammation, and pain. We believe this technology allows us to serve your patients better.

Case 1: Root-end surgery with Lid Technique



Preoperative radiograph



Piezo lid is outlined



Osteotomy lid is removed

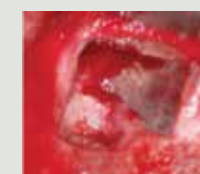


After root-end surgery bony lid is replaced and set with calcium sulfate



Postoperative radiograph

Case 2: Root-end surgery with maxillary sinus management



Piezo surgical tips allow for bone removal against the sinus without perforating the delicate membrane



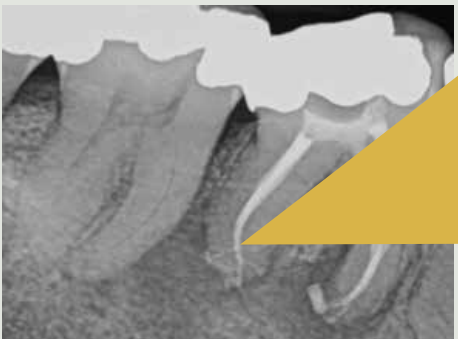
Follow us on Instagram for all things Zumbro Valley Endodontics





Preoperative
(broken file in distolingual)

Post Operative
(broken file removed)



Complex apical anatomy



Four primary canals were located, but after GentleWave disinfection middle-mesial and middle-distal spaces were accessed.



Re-treatment with location of middle-mesial canal



Although the postoperative radiograph does not do it justice, we accessed seven different canal orifices in this tooth



Re-treatment with three mesial canals

HEARD FROM US...

We took a group of our staff to Chicago for the annual AAE meeting. In addition to many great lectures, we got to tour the town and have some fun. Dr. Divine gave a talk on ABE board certification.



Brittney and her husband Alex welcomed their fourth little boy, Nixon!



PEER VISITS



Dr. Ryan Atlasi, a general dentist in Rochester, asked to spend the day observing us at Zumbro Valley Endodontics. It was a good day to observe because he saw root canal therapy, re-treatment, root-end surgery, perforation repair, resorption, and broken file management. He sent in the following, which we are honored to share with you: "As a general dentist, it is really important to make sure my patients receive the highest quality dental care. Recently, I had the opportunity to visit Zumbro Valley Endodontics and shadow Dr. Regan Anderson. After spending a day in their clinic, I first handedly observed the use of top notch technology and equipment to perform various surgical and non-surgical endodontic treatments. I observed different procedures including non-surgical root canal treatment, surgical apicoectomy, perforation repair, and complex endodontic retreatments. All patients were provided treatment options, procedure details, and instructions to follow up care with their general dentists. The level of professionalism and care provided by the endodontists and dental staff at Zumbro Valley Endodontics was absolutely remarkable. I am confident that patients are in good hands when they are seen and treated at Zumbro Valley Endodontics."

Contact Dr. Regan Anderson to set up your visit to ZVE.
 drmichael@zumbrovalleyendo.com



It's a labor of love for some (and a reluctant labor for a few...) to maintain our Adopt A Highway in Northwest Rochester



INTERESTING CASES

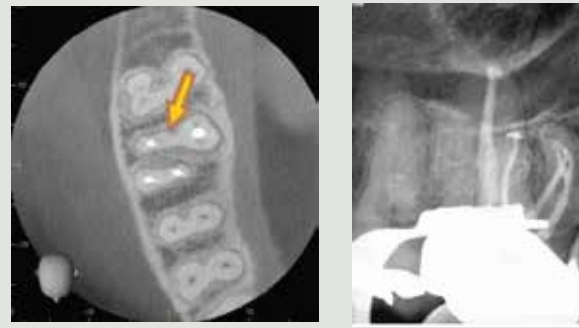
Here are some cases that we have seen in office since our last newsletter.



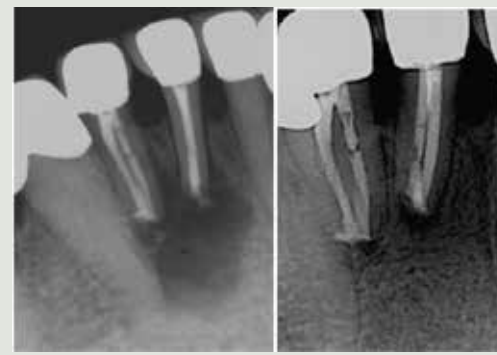
Preoperative CBCT Postoperative

Resorption repair with root canal therapy

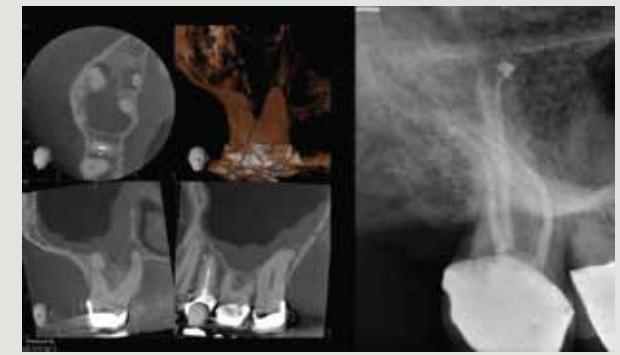
Three-canaled maxillary premolar



Although a relatively uncommon variation, this DB2 canal was identified on CBCT as the primary cause of persistent disease in a maxillary first molar. Complex apical anatomy addressed through instrumentation and GentleWave disinfection technology



Root-end surgery #23-24 with a large PARL preoperatively. Recall image demonstrates substantial healing.



Severely curved #2 with sinus involvement and severe apical curvature



Mandibular premolar with two canals. The lingual canal took a bizarre mid-root exit



Root canal therapy with elegant radix root



Preoperative CBCT Postoperative
Large silver point removed during re-treatment. Prefabricated fiber post cemented



Off-angle maxillary molar bridge abutment



#18 with deceptively acute apical curvatures



Preoperative

Preoperative CBCT



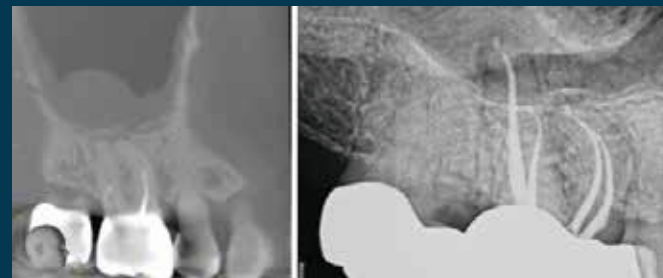
Root canal therapy with five primary canals



Mid-treatment

Post-Operative

#15 with severe curvature of the mesiobuccal root



This tooth was previously initiated with a broken file in the DB root. We removed the broken file, located an MB2 canal, and completed root canal therapy



Preoperative

Post-Operative

2 year Recall



Postoperative retreatment:
5 canals

1 year recall