

The versatility of Traxodent improving digital dentistry

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Traxodent is proving critical to my practice for improving clinical outcomes and easing chairside problems. The more I use Traxodent (Fig. 1), the more uses I find for it. This is how Premier describes Traxodent and its use.

"Traxodent is a paste retraction and hemostatic system for use prior to impression making, cementation, bonding procedures or wherever hemostasis and retraction is required. Traxodent paste contains 15 percent aluminum chloride – a proven, effective hemostatic agent.

"Traxodent can be dispensed directly from the sleek syringe into the sulcus and be adapted to a variety of techniques. The absorbent paste displaces soft tissue and works synergistically with the astringent properties of aluminum chloride to create retraction.

"Fluid is absorbed while Traxodent occupies the sulcus. After two minutes, Traxodent is rinsed away, leaving an open, retracted sulcus.

"The Traxodent hemostatic retraction system provides predictable tissue management for accurately detailed impressions with less retakes."

(Photos/Provided by William Davidson, DMD)



Fig. 1

Premier also supplies retraction caps to enhance the effect of Traxodent. Anatomic-formed cotton caps work synergistically with Traxodent to quicken and assist retraction and hemostasis. These retraction caps offer the following features:

- Provide predictable hemostasis and soft-tissue management in minutes.
- Easily guide Traxodent into the sulcus.
- Compression assists and quickens hemostasis.
- Cotton absorbs fluids.
- Anatomic form allows easy placement.

Here are some examples of how Traxodent and digital dentistry go together.

Case No. 1: Tissue Preparation: Prior to cementing final restorations

Fig. 2.

These are the preparations after removing the temporaries. There is temporary cement remaining on the preps and fluid weeping onto the margin from the tissue. Cleaning the preps at this point would also induce bleeding from the tissue.

To resolve these issues I start with Traxodent.



Fig. 2



Fig. 3
Traxodent syringed around all the preps.

Fig. 4
I will have the patient bite on split cotton rolls to apply pressure on the Traxodent and to keep the Traxodent in the sulcus.

Fig. 5
After washing off the Traxodent and removing any remaining temporary cement, the preps are ready for bonding.

Fig. 6
This case was done with Romexis and the Planmeca FIT system being used to take digital impressions for submission to my dental laboratory.
Only minor contact adjustment on teeth #7 and

#10 were needed along with slight occlusal adjustment on #20-22. The image shows the e.max crowns inserted.

Case No. 2: Tissue Preparation: Single-unit crown

Fig. 7
Here is a case where I wanted to do a single-visit crown. Unfortunately, the patient's gums were not healthy, leading to bleeding while preparing the tooth.

Fig. 8
I used Traxodent twice. Once prior to packing the Knit-Pak, which is a braided easy-to-place cord. And again after placing the Knit-Pak as an alternative to a second cord layer.

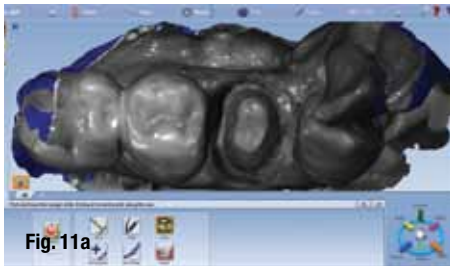


Fig. 9
The Traxodent was syringed in place.

Fig. 10
I had the patient bite on a retraction cap.

Figs. 11a-11c
The clean dry tooth is ready for my digital impression. Fig. 11a shows the digital impression in ICE mode (I C Everything). Fig. 11b has the digital model showing the margins. Fig. 11c shows the margin drawn with the area on the buccal that needs editing.

Figs. 12a-12c
The Empress Multi block polished with diamond Twist SCL (lab) and SCO (intra-oral) kits allow me to achieve a fast glaze-like finish on ceramic. This photo is immediately after removing the cord, which I left in

until after the crown was bonded in place, ensuring a clean dry field throughout the procedure.

Case No. 3: Hemostasis prior to using a laser

Fig. 13
Lasers have been a big part of my practice for more than 20 years. I started with an argon dual-beam laser for curing composite and cutting tissue. I have had several diode lasers and currently have the precise diode from CAO and Henry Schein.

It is quick and easy to use any time I want to do a single-tooth gingivectomy or for troughing around a crown prep. However, many times I still use Traxodent.

In this case, I started with a bridge with decay around the margin visible.





Fig. 14



Fig. 15



Fig. 16



Fig. 17

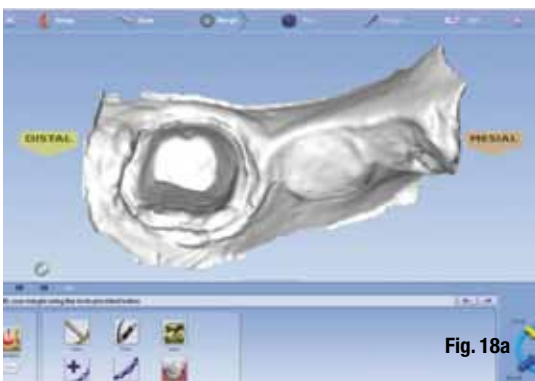


Fig. 18a

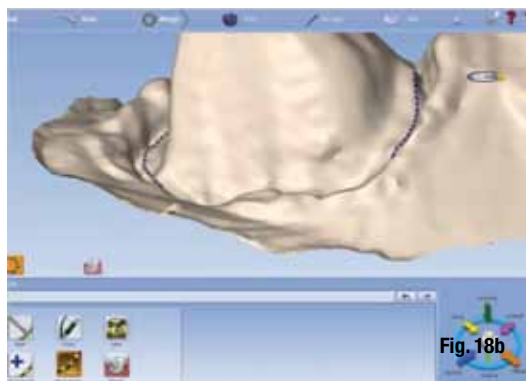


Fig. 18b

On removal of the bridge – Surprise! – I found more decay than expected and very deep subgingival decay. Decay removal causes tissue bleeding.

_Fig. 14

Lasering the tissue in a pool of blood does not work well. I use Traxodent for hemostasis prior to using the laser.

_Fig. 15

I am now ready to use the laser.

_Fig. 16

Tissue has been troughed for optical impression.

_Fig. 17

I will use Traxodent again at this time to insure a clean visable margin.

_Figs. 18a-b

I use the Planmeca FIT system to take a scan. Alternating between the stone model and the photo (ICE view) using magnification allows for accurate margin finding.

about the author CAD/CAM



Dr. William Davidson has been in private practice since 1981. He received his doctor of medicine in dentistry degree from Case Western Reserve University. Davidson is well-known for practicing state-of-the-art dentistry and using 3-D technology to create natural and durable ceramic teeth restorations. He is sought after by both national and international groups to train dentists in the art and science of using these technologies. He is frequently called upon as a technical advisor for various dental manufacturers and assists in evaluating new precision instruments. In his private practice, Davidson owns four different digital impression systems and has been a digital dentist since acquiring his first system in 1997. He is a member of the Cleveland Dental Society, the Chicago Dental Society, the Ohio Dental Society, the American Dental Society and the Academy of General Dentistry.

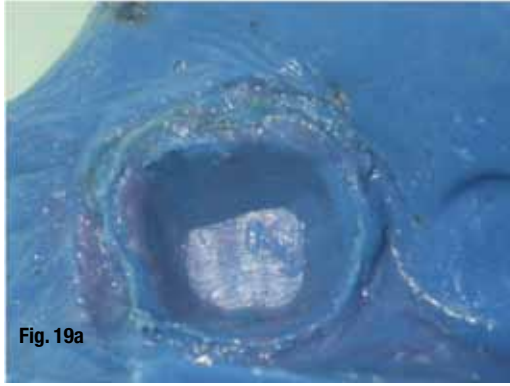


Fig. 19a

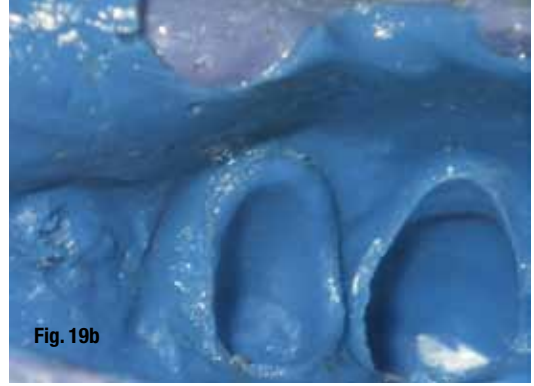


Fig. 19b



Fig. 20



Fig. 21



Fig. 22



Fig. 23



Fig. 24a



Fig. 24b

Figs. 19a-b

I will use the LAVA material from 3M for long-term temporary crowns for both abutments. For this bridge, I am working with a small lab that won't accept my digital scans yet. They are the last hold-out lab I work with. All others are digital.

I took a physical impression with impregum. Look at the excellent detail capture of the margin with the laser and Traxodent combination.

Case No. 4 Tissue Preparation: After using a laser

Fig. 20

Carbon dioxide CO2 lasers are considered the gold standard for soft-tissue treatment in dentistry. I have a SOLEA hard-/soft-tissue laser. Nothing removes tissue faster and cleaner. I still use my Traxodent though. In this case, a crown came in with decay around the margin.

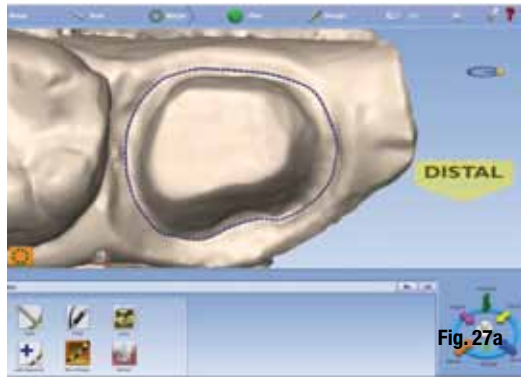


Fig. 21

On removal of the crown, the decay is extensive.

Fig. 22

I start by using the CO2 laser to remove tissue and decay.

Fig. 23

After that, it is time to clean up the field with Traxodent. The Traxodent is put in place and the patient bites on a retraction cap for two minutes.

Figs. 24a-b

The tooth is then ready for final decay removal (Fig. 24a) and build up (Fig. 24b).

Figs. 25a-b

After shaping the build up, Traxodent is syringed into place (Fig. 25a), and the patient bites on a retraction cap (Fig. 25b).

Fig. 26

The tooth is then ready for optical impression taking.

Figs. 27a-b

For the optical impression, I used the Planmeca FIT system with the color tip. The stone model and the color picture make it easy to draw the margin (Fig. 27a). The final picture is the finished crown (Fig. 27b).

Even with lasers Traxodent makes digital impressing easier, faster and better. Bonding and finishing are performed more efficiently and predictably, and even physical impressing is easier. Traxodent is one of those products that you just have to have in your toolbox!_