



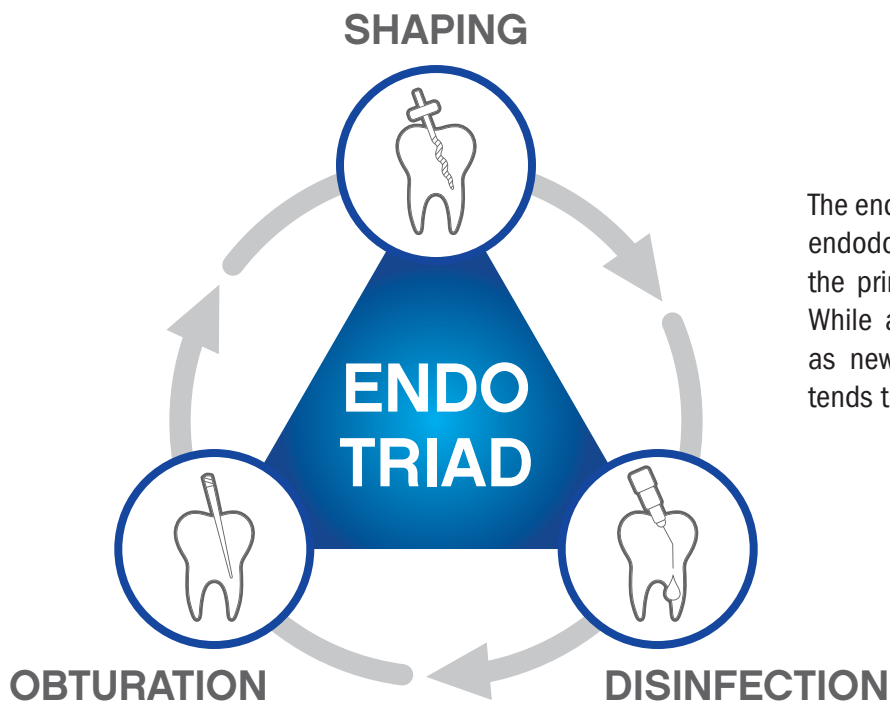
BRASSELER
USA®



ANATOMICALLY **C**ENTERED
ENDODONTICS™

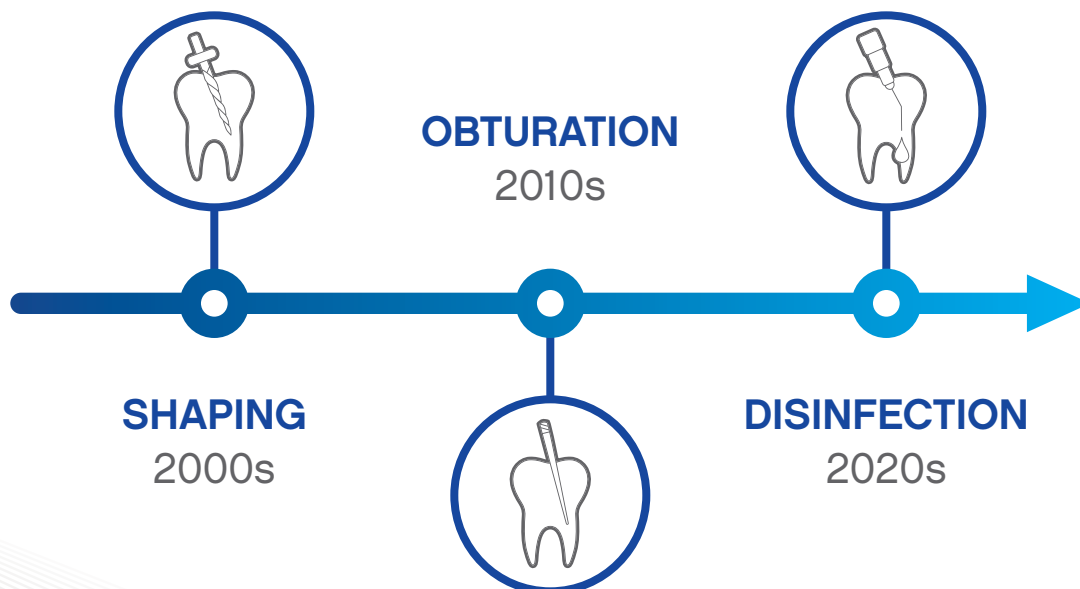
BY YOUR SIDE

CHANGING PARADIGMS IN ENDO, SAME FUNDAMENTAL GOALS



The endodontic triad is the cornerstone of endodontic success and clearly identifies the primary goals of root canal therapy. While all three components are critical, as new technologies emerge the focus tends to shift.

In the 1990s–2000s, NiTi rotary files redefined cleaning and shaping. In 2008, Brasseler introduced BC Sealer™, which set a new biologic standard of care with its bonded obturation for minimally invasive shaping. In 2025, Brasseler advanced again with XP-4D™ instruments for adaptive anatomical shaping with predictable apical preparation and BC Sealer™ ion+™, which accelerates healing through magnesium ion release. Now, endodontics looks towards advanced irrigation to drive the next breakthrough—disinfection.



THE CHALLENGE

Embracing minimally invasive cleaning requires weighing the benefits of new technologies against their high cost and training demands.

THE ACE PHILOSOPHY

ACE is a philosophy and workflow designed for every clinician. It applies modern material science to optimize the three goals of the endodontic triad:



► SHAPING

Shape only as much as needed for disinfection, never letting obturation dictate the shape of the canal. Adaptive shaping with XP-4D NiTi preserves dentin, maintains anatomy, and enhances efficiency while aiding disinfection.

► DISINFECTION

Irrigate with Triton®, an all-in-one irrigation solution that dissolves organic and inorganic debris simultaneously. Use XP-4D shaping instruments to agitate the solution for superior canal cleaning.



► OBTURATION

BC Sealer ion+ seals the canal while releasing calcium and magnesium ions to speed healing, enhances antibacterial action, and provides biocompatible bonded obturation at room temperature.

ACE
YOUR
ENDO!



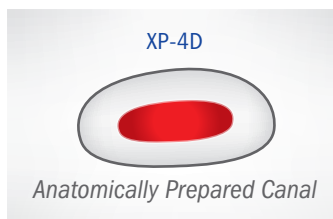
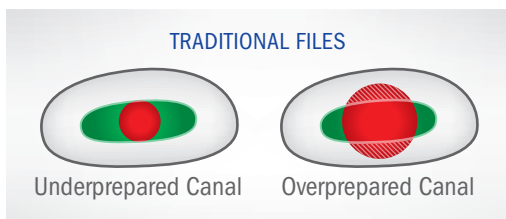
- Anatomical
- Minimally Invasive
- Simple
- Cost Effective





XP-4D™

XP-4D shaping instruments address the shortcomings of traditional NiTi files, setting a new biologic standard of care in endodontics. Unlike conventional files that cut only a round shape, which can lead to under or over prepared canals, XP-4D adapts to the canal, cleans three-dimensionally with minimal stress on dentin, and delivers predictable apical preparation with its constant 3% taper tip.



- Dentin
- The canal (area to be cleaned)
- Area cleaned
- ▨ Weakened dentin

XP-4D NITI FILES



File/Tip ID	Tip Size	Qty./Pk.	21 mm	25 mm	31 mm
▲ Purple	20	3	5031723U0	5031727U0	5031731U0
▲ Blue	30	3	5031724U0	5031728U0	5031732U0
▲ Black	40	3	5031725U0	5031729U0	5031733U0
▲ Yellow	50	3	5031726U0	5031730U0	5031734U0
Assortment	20-50 (1 ea.)	4	5031735U0	5031736U0	5031737U0
Sequence Pack	20-30 (3 ea.)	6	5031738U0	5031739U0	5031740U0

XP-4D BIO GUTTA PERCHA

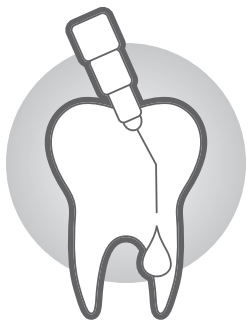


File/Tip ID	Tip Size	Qty./Pk.	Order Number
▲ Purple	20	60	5031700U0
▲ Blue	30	60	5031701U0
▲ Black	40	60	5031702U0
▲ Yellow	50	60	5031703U0
Assortment	20-50 (15 ea.)	60	5031704U0

XP-4D PAPER POINTS



File/Tip ID	Tip Size	Qty./Pk.	Order Number
▲ Purple	20	100	5031705U0
▲ Blue	30	100	5031706U0
▲ Black	40	100	5031707U0
▲ Yellow	50	100	5031708U0
Assortment	20-50 (25 ea.)	100	5031709U0



TRITON[®]

ALL-IN-ONE IRRIGATION SOLUTION

Unlike traditional irrigants or other 2:1 solutions, Triton avoids EDTA and CHX. Its non-NaOCl components dissolve dentinal debris, reducing buffering and allowing lower NaOCl concentrations to act more effectively on organic tissue. This simultaneous dissolution of organic and inorganic debris enables lower irrigant volumes while maximizing clinical efficiency.

TRITON VS. TRADITIONAL IRRIGATION

- ✓ All-in-one irrigation solution that saves chair time, procedural steps, and overall cost
- ✓ Removes organic and inorganic debris simultaneously
- ✓ Uses lower NaOCl concentration with improved effectiveness
- ✓ More effective at smear layer removal than NaOCl with EDTA
- ✓ Dissolves organic tissue up to 1.7x faster than traditional NaOCl

COST-EFFECTIVE

Not only will Triton reduce chair time by eliminating the need for multiple irrigation solutions and sterile water rinses, but it also reduces the number of single-use disposable syringes and tips you'll require. In some cases, Triton can cut your total irrigation cost per procedure in half.



Order No.
5028425U0

Procedural Step and Irrigation Cost Comparison*

	NaOCl+EDTA+CHX	NaOCl+EDTA	2:1 Solutions	Triton
Solutions Used	3	2	2	1
Syringes Used	3	2	3	1
Tips Used	3	2	3	1
Water Rinse Required	Yes	Recommended	Yes	No
Avg. Tip+Syringe Cost per Procedure	\$3.84	\$2.97	\$3.84	\$1.28
Irrigation Solution Cost per Procedure	\$1.19	\$0.85	\$2.38	\$1.87
Total Irrigation Cost per Procedure	\$5.03	\$3.82	\$6.22	\$3.15

*Data on file. The average general practitioner does 115 root canal therapies a year, making the total annual irrigation cost with Triton only \$362.25 in 2021. Clinical consideration: A sterile water rinse is recommended before placing CHX or a CHX-containing "2-in-1" solution to avoid a Phenolchloroalane reaction.



BC SEALER™ ion+

BC Sealer ion+ is Brasseler's next-generation bioceramic sealer, based on akermanite, renowned for its healing and regenerative properties. Unlike other bioceramics, it releases both calcium and magnesium ions, delivering excellent bioactivity for long-term healing and sealing.

- ▶ Ideal for Cold and Warm Obturation
- ▶ Improved Handling
- ▶ Increased Radiopacity
- ▶ Enhanced Bioactivity
- ▶ 2x Tissue Repair
- ▶ Stem Cell Differentiation
- ▶ Micronized Particles
- ▶ Antibacterial Effect



BC Sealer™ ion+™

- | | |
|----|----------------------------|
| 1 | 2g syringe |
| 20 | Applicator Tips |
| 1 | Instructions for Use (IFU) |
| 1 | Safety Data Sheet (SDS) |

Order No. 5031639U0

BC Sealer™ ion+™ Bulk:

- | | |
|----|----------------------------|
| 2 | 2g syringe |
| 40 | Applicator Tips |
| 1 | Instructions for Use (IFU) |
| 1 | Safety Data Sheet (SDS) |

Order No. 5031640U0



APPLICATOR TIPS

20-Pack

5031642U0



MINIMUM WASTE BC TIPS

87% less waste vs. standard tips

15-Pack

5027507U0

50-Pack

5028585U0

	BC Sealer ion+	BC Sealer
Bioceramic components	Calcium and Magnesium Silicate (17%) Calcium Sulfate Hemihydrate (5%) Calcium Oxide (2%) Potassium Sulfate (2%) TOTAL 26%	Tricalcium Silicate (20-35%) Dicalcium Silicate (5%) Calcium Hydroxide (1-4%) Calcium Phosphate TOTAL 27%
Radiopacifier	Zirconium Oxide (40%)	Zirconium Oxide (35-45%)
Fillers and thickening components	Polyethylene Glycol (32.5%) Thickening Agents (2.5%)	Propylene Glycol (32.5%) Thickening Agents (2.5%)



RESIN
FREE



EUGENOL
FREE



ALUMINUM
FREE

*Research and other support materials available at www.BrasselerUSA.com/Bioceramics

TESTIMONIALS



“Anatomically oriented and conservative root canal preparation has been the best approach for long term success in endodontics for a long time. The ACE approach allows us to cut less dentin, to enhance the irrigation process significantly, and to seal canals with the best science has to offer today. ACE is not a new instrument, not a new material, but the combination of scientifically proven techniques and materials in one simple, biologically driven, and inexpensive workflow.”

— Alex Fleury, DDS, MS

“Minimally invasive root canal therapy is easily achieved thanks to the ACE workflow: XP-4D, Triton, and BC Sealer ion+. This makes the procedure flow faster, easier, and (most importantly) more anatomically centered. I can attest that Anatomically Centered Endodontics is user friendly and can be easily implemented by clinicians at any level.”

— Chafic Safi, DDS, MS



CASE STUDIES

Courtesy of Alex Fleury, DDS, MS

CASE 1



Pre-Op

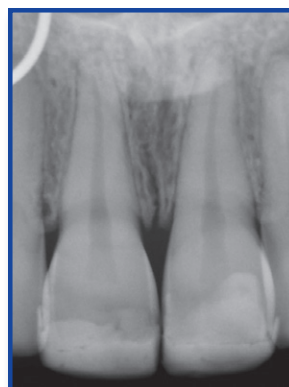


Post-Op

Tooth #3:

- C&S with XP-3D Shaper and XP-3D Finisher
- Obturation using GP and hydraulic condensation with BC Sealer ion+

CASE 2



Pre-Op



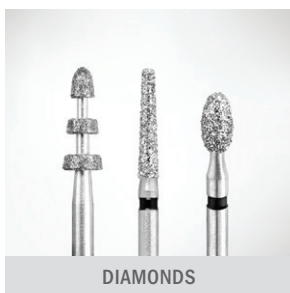
Post-Op

Teeth #8 & #9:

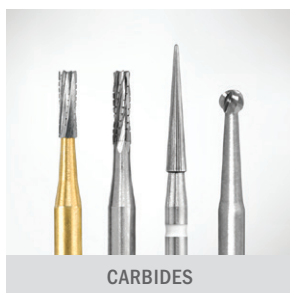
- Uncomplicated crown fracture
- Irreversible pulpitis
- Normal periradicular
- C&S with XP-3D Shaper and XP-3D Finisher
- Obturation using GP and hydraulic condensation with BC Sealer ion+

Visit BrasselerUSADental.com/ACE to view the ACE research bibliography, video tutorials, and more!

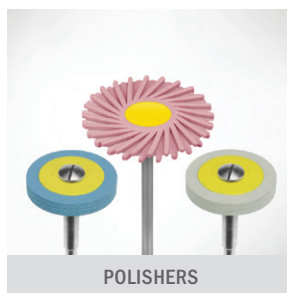




DIAMONDS



CARBIDES



POLISHERS



PROCEDURE SYSTEMS



BIOCERAMICS



Since 1976, our absolute focus has been to develop products and provide services that support the practice of core operatory procedures. Today, Brasseler USA® is the premier dental instrumentation company in North America offering the most extensive selection of dental and surgical instrumentation under one brand.



HANDPIECES



ENDODONTICS



SMALL EQUIPMENT



HYGIENE



HAND INSTRUMENTS



ORAL SURGERY



LABORATORY INSTRUMENTS



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