

DENTAL ADVISOR™

Product insights you can trust.

NOV-DEC, 2019

Vol. 36, No. 06

Eco-Friendly Dentistry



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As a Michigan fan, I never thought I would hear myself encouraging people to go green! We are all aware of the amount of waste we generate and how our resources are being used at an alarming rate. We realized it had been over 11 years since we have addressed this issue, and dental professionals are constantly asking us what alternatives they have to single-use items, what products use recycled materials, and what programs exist to recycle.

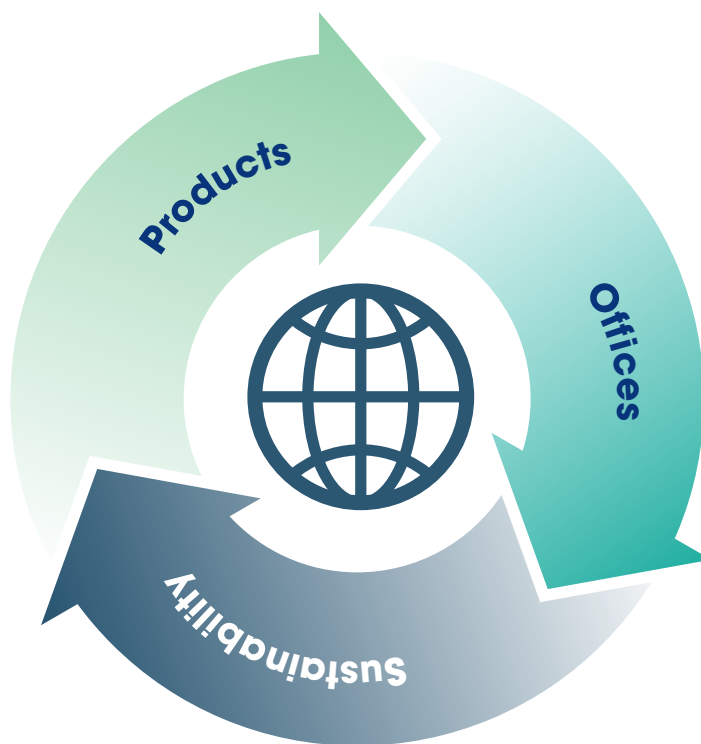
As we hear about climate change, it is hard not to look at our part in the production of waste. Historically, dentistry has utilized materials that can be sterilized and reused, but since the 1980's there has been more heightened awareness of cross contamination and infection control concerns. Rise in single-use items has spoiled us with convenience, but come at a cost to our planet. This month we look at products and companies that are changing the landscape through innovative product design, sustainability and practices to reuse and recycle. We reached out to our clinical consultants and were pleasantly surprised at the techniques and tips they provided. We will share those on social media throughout the month. What are you doing in your practice to go green? Reach out to us on social media or email me and we will share your story.

As always, we appreciate your support of DENTAL ADVISOR. I welcome your feedback at drbunek@dentaladvisor.com.

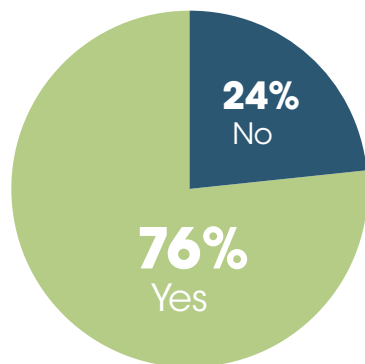
— *Sabiha S. Bunek*

How eco-friendly is your dental office?

As you review your office's **products, methods and long-term sustainability**, it is likely you and your team will generate ideas for reducing your carbon footprint. Even the smallest changes can make a big difference in conservation, as well as lower your overall costs. While you develop strategies, be sure to encourage ideas with a goal of continuous improvement. **Monitor your progress, and celebrate accomplishments** with your team and patients to encourage an ongoing commitment to sustainability. Patients will take note, and spread the word about your practice to others in the community.



Eco-Friendly Dentistry: What's right for your practice?



Do you currently take extra steps (big or small) in your office to make it more eco-friendly?

Marketing Tip

Provide resources for patients to participate in local environmental groups.

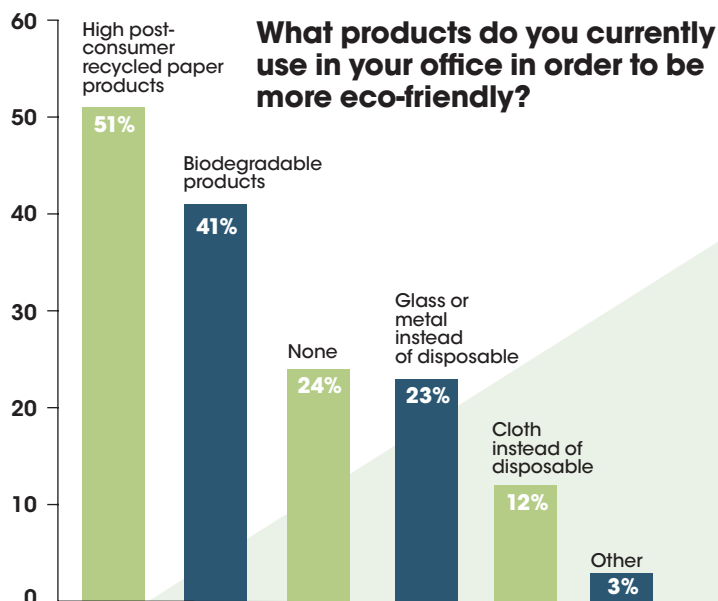
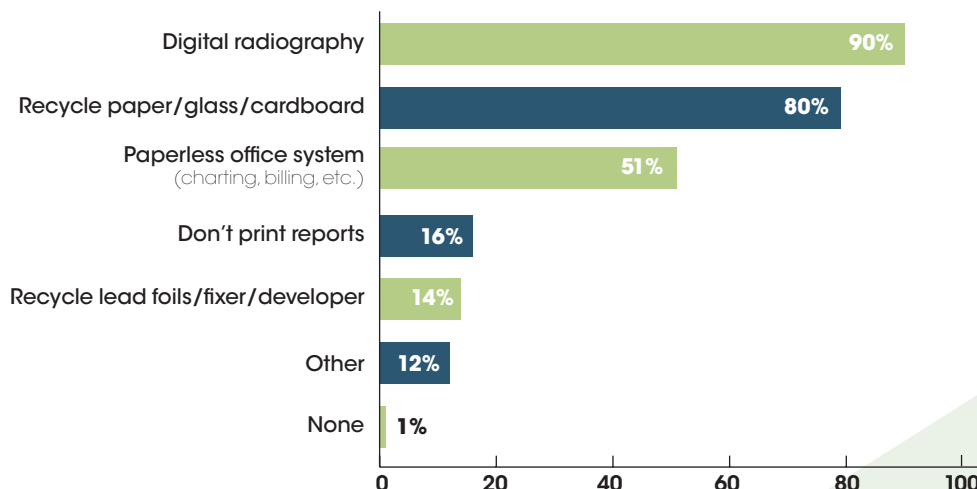


Green Dental Tip

Use earth-friendly high-volume suction paper HVE tips
(ex: ECOtip™ HVE Tips from Practicon)



Which of the following waste-reducing practices does your office currently employ?



What products do you currently use in your office in order to be more eco-friendly?

Green Dental Tip

Install a water cooler to fill water bottles or washable drinking cups, thus eliminating the need for plastic water bottles.



Source: 2019 DENTAL ADVISOR clinical consultant survey

Anterior Quest: An environmentally-friendly solution to disposing of dental waste

The foundation of Anterior Quest is built on quality products and service while preserving the quality of the environment we live in. With this in mind, Anterior Quest strives to ensure each step of their process is an environmentally-friendly approach; from research and product development to properly disposing of dental waste and each step in between.



Anterior Quest continues to lead the industry in eco-friendly initiatives and solutions. As a result, their innovative products have delivered industry-leading results in performance, eco-friendliness and regulatory compliance, exceeding all local and federal requirements.

Anterior Quest's **HG Containment System** and **AQ-Solution** both boast unique features and because of this have been given the "Editors' Choice" award by DENTAL ADVISOR. The **HG Containment System** contains 100% of solid and dissolved mercury which exceeds the requirement of 95% of solid mercury, as defined by the EPA. **AQ-Solution** is made of 100% recycled dental water, making it one of the most environmentally-friendly evacuation line cleaners on the market today. Individually, these exclusive products produce unmatched results. Together, these products eliminate essentially all maintenance, risk and liability while saving on annual costs, contributing to preserving the environment and improving overall performance and efficiency of the dental office.

Learn more at anteriorquest.com, facebook.com/AnteriorQuest or email info@anteriorquest.com.

HG Containment System: (Anterior Quest) anteriorquest.com

Anterior Quest's **HG Containment System** completely contains mercury from other metals and chemicals. Its patented filterless technology is maintenance- and hazardous waste-free, eliminating the need for waste handling, shipping or record keeping.

100% of amalgam and mercury is contained, which exceeds the best practices recommended by the EPA. It is completely exempt from EPA regulation, ensuring on-going compliance. **HG Containment System** is helping the dental industry play its part in being responsible for the waste it generates.



HOW IT WORKS: Once contained, the Anterior Quest team handles all dental waste. It is then recycled through a vigorous process, further enhancing their green initiative and making the entire process the only comprehensive, environmentally-sound approach conducted in the industry.

Products

Products

What should you look for?

- Post-consumer content products
- Sterilizable and reusable products
- Biodegradable products



Offices

What can you do in your practice?

- Install LED bulbs with sensors
- Install touchless water faucets
- Recycle all dental product packaging and any non-contaminated plastics
- Utilize digital x-ray
- Utilize steam sterilization
- Avoid paper statements and reminder cards
- Recycle printer cartridges
- If laundering, use wool dryer balls instead of fabric sheets
- Manage wastewater and hazardous materials

Instrument Recycling Programs:

- Hu-Friedy, *Envirodent*
- Paradise Dental Technologies, *Earthcare*
- American Eagle Instruments, *Recycle to Receive*
- Pro Dent USA, *Instruments for Change*



Toothbrush and Toothpaste Packaging recycling:

- Colgate Oral Care Program
- Proctor and Gamble/Crest via TerraCycle

There are several free recycling programs via TerraCycle here: terracycle.com/en-US/brigades

Gently used equipment and instruments:

- Open Wide Foundation, Spear Dental
openwidefoundation.org/get-involved

Sustainability

What systems do you have in your office that create programs conducive to reducing waste and recycling?

- Set up individual recycling areas
- Collect instruments that can be recycled



Bamboo Classic Toothbrush & Bamboo Piksters

(Piksters) piksters.com

The **Bamboo Classic Toothbrush** is a sustainably grown, 100% biodegradable bamboo-handled toothbrush with plant-based bio-bristles.

Product features:

- A market-quality toothbrush with a compostable, biodegradable handle.
- Individually packaged in recycled and compostable cardboard boxes, using soy-based inks.
- Contains up to 99% less plastic than traditional toothbrushes.



The **Bamboo Piksters** Straight Handle Interdental Brush is based on the market leading Piksters Interdental Brush style, to effectively clean between teeth & remove plaque better than traditional flossing alternatives.

Product features:

- Market-quality interdental care whilst reducing plastic waste with up to 97% biodegradability.
- A sustainably grown biodegradable bamboo handle.
- Non-conventional biodegradable polymer cap made from cornstarch – not crude oil.
- Available in eight sizes: Pink (00) to Green (6), each packet containing eight brushes.
- Also available in a Variety Packet containing one brush of each size: Pink (00) to Green (6).



BeeSure Vibe™ Face Mask

(EcoBee) ecobeeworld.com



Award-Winning Features:

Quad-Fold Design: Offers more breathing volume.

Anti-Fog Design: Innovative nose flap reduces or eliminates fogging.

Evaluator Comments:

- "So comfortable I almost forgot I was wearing one. It's the most comfortable mask I've worn."
- "Breathable and soft material. It felt gentle on my face and nose."



2020 EPA Guidelines

Compliance with the Clean Water Act



FIONA M. COLLINS,
BDS, MBA, MA, FPFA

Dr. Collins has presented in North America, Europe, the Pacific Rim and the Middle East. She is a published author and speaker on topics including infection control and OSHA, the prevention and management of oral diseases and conditions, vaping and tobacco, the sugar epidemic and artificial sweeteners, pain management, HPV and dry mouth, and new products, technologies and diagnostics. Fiona is a consultant for the DENTAL ADVISOR, editor for Dental World, a trainer and CE contributor, editor and peer reviewer. She is the ADA representative to the Association for the Advancement of Medical Instrumentation (AAMI), a member of the ADA, Chicago Dental Society, the Organization for Safety, Asepsis and Prevention (OSAP), a participant in Standards working groups and a Fellow of the Pierre Fauchard Academy. During her career, Fiona has lived and worked in five countries, and has held positions in academia, private practice, consulting and industry. Dr. Collins graduated as a general dentist from the University of Glasgow and holds an MBA and an MA from Boston University.



Dr. Collins, many offices are concerned with the new EPA guidelines pertaining to the Clean Water Act. What exactly do offices need to do, and how will it be monitored?



There are a few key facts that determine what your office needs to do and when that needs to happen. The first question dental professionals ask us is whether the EPA requirements apply to them. In general, if your office discharges wastewater to a public source, and you are not a specialist, you need to comply with the EPA requirements.

Regardless, most offices still need to submit a one-time report that confirms their status but are otherwise exempt from the requirements. They are: Offices where dental amalgam isn't placed, and isn't removed except under unanticipated, unplanned or emergency circumstances; specialist offices that exclusively perform oral pathology, oral and maxillofacial radiology or surgery, orthodontics, periodontics and prosthodontics; and, mobile dental units that are operated at multiple locations.

Check your amalgam separator. If you don't have one, purchase one. Offices need to install and use an ISO 11143-compliant amalgam separator(s) or an equivalent device. That would mean that the separator or equivalent device must be at least 95% effective in removing solids from the wastewater before it leaves the office. Some locations have more stringent requirements than the EPA - for example, 99% efficacy for an amalgam separator. If that's the case where you practice, you must follow these requirements.

Depending on your office, you might choose individual separators or a central system. The separator(s) must be inspected and maintained, and the canister(s) replaced (if applicable) and disposed of in accordance with regulations.



Are there any other components to the requirements?



Yes. Amalgam waste not entering the lines (which means that the amalgam separator would not capture it) must be grey-bagged and disposed of in accordance with Federal and local regulations. Secondly, you must not use an evacuation line cleaner that is an oxidizer, with a pH above or below 6 to 8.

AQ-Solution (Anterior Quest) anteriorquest.com

AQ-Solution, developed from 100% recycled dental water, uses a microbial formulation to penetrate on contact and works continuously. This results in improved performance and suction in evacuation lines, pipes and traps.

The pH neutral formula complies with EPA mandates. This all-natural, high-performing line cleaner needs less maintenance, resulting in a lower cost.

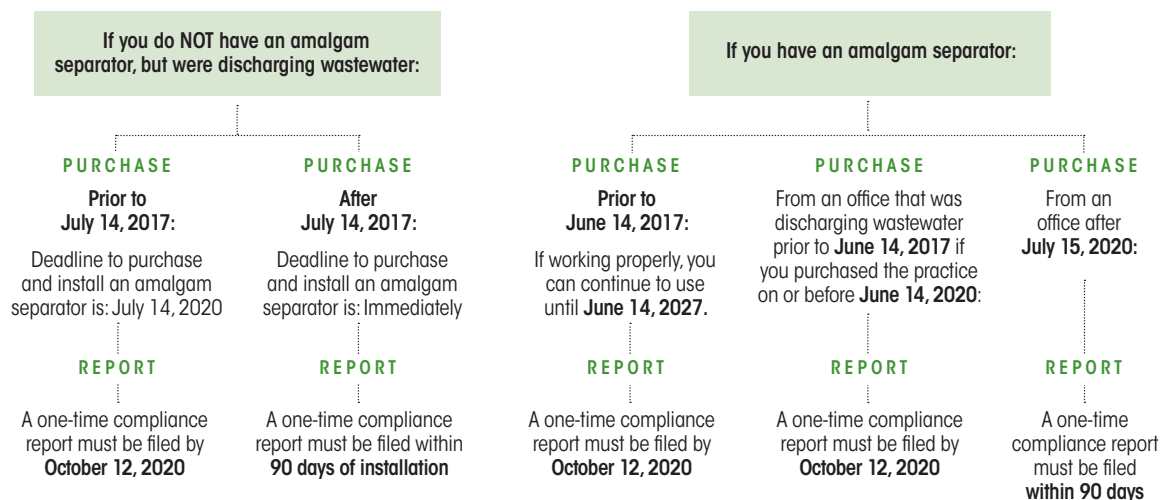
See the clinical evaluation on Page 10.



What deadlines should I be concerned about?



The deadlines depend on when your office first started discharging wastewater to the public supply.



The EPA has a website with sample compliance forms and a list of state EPA offices where you can file your report: epa.gov/eg/dental-effluent-guidelines

COMPANY FEATURE

Our Green Certified Eco-Friendly Whitening System

Naturally Organic

Sinsational Smile is the first whitening system in the world to achieve eco-friendly certification from the Eco-Dentistry Association.® The EDA Accepted Seal is the dental industry's only comprehensive standard for environmentally sound products and services.

The EDA awarded the "Accepted Seal" to **Sinsational Smile** not only because its ingredients have been determined to be GRAS (Generally Regarded as Safe), requiring no warnings, but also because of the company's extraordinary environmental efforts. Its manufacturing facilities are located in a LEED certified building, which means they use the best green building methods and materials, and they're even powered by solar panels installed on their roof. They are also the first whitening product to use recyclable silicone trays (BPA-free) in their system.

- First company to use recyclable silicone trays
- Green Certified Business located in a LEED Certified building
- Pre-filled trays that eliminate the use of syringes and reduce waste

- Avoids chemical compounds of concern for dental patients (No BPA's, titanium dioxide, sodium lauryl sulfate or other harmful chemicals)
- Portion of proceeds goes to support organizations like Oceana, Surfrider Foundation, SPCA, American Forests and Humane Society International



A visit to a green practice

A conversation with DENTAL ADVISOR clinical consultant, Dr. Matthew A. Caligiuri, owner of EnvironDental, an environmentally-conscious practice in downtown Los Angeles, CA.

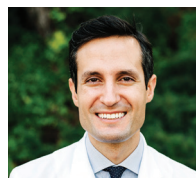
What was your initial motivation to create a practice focused around green dentistry?

My desire to go green started in dental school. In that large clinical environment there is a certain necessity for individually wrapped, pre-packed supplies. It makes dispensing vast quantities of product to hundreds of providers a day both efficient and hygienic. The unfortunate side-effects of that efficiency are copious amounts of wasted product and mountains of used packaging materials. This was over a decade ago, and yet, it was fairly commonplace to find eco-friendly alternatives for many of life's everyday consumables—there had to be other options in dentistry, I thought.

During my down time and on the weekends, I started researching green dental practices, supplies and processes. While there were a few pioneers that existed, I was rather surprised by how few offices were going green. I was already passionate about dentistry and minimizing my environmental impact at a personal level. It wasn't long before I knew I had to commit to sustainability on a professional level.

What are some of the things that you have you done specifically to make your office more eco-friendly?

During the planning stages of my practice, I tried to take a close look at all of our systems, processes and materials and chose each with the ultimate goal of sustainability. Since I happened to be building a startup, I chose green building materials wherever possible: low-VOC paints, all LED lighting, and energy-saving appliances, for example. Perhaps one of the most impactful decisions from a conservation standpoint was the installation of a waterless vacuum system. Fortunately, such waterless pumps have become very commonplace over the past several years, due to the excellent suction they provide, but they also save several hundreds of gallons of water a day, and that's a vast improvement over the alternative. One other specific choice that I think is worth mentioning, is the use of cloth sterilization pouches. Think of the waste that is created daily solely in the disposal of paper sterilization bags at a single office. The use of fabric pouches is commonplace in hospitals and medical practices; not only is this method better for the environment, it is an easy and affordable change to make in the dental setting.



Dr. Matthew A. Caligiuri

What are some of the first, basic steps an office can take in their journey to becoming eco-friendly?

First, take stock of your practice. You'd be surprised how many things you're already doing that are better for the environment than how we did things in the past. Using digital radiography? Keeping paperless charts? Hand sanitizing often rather than always washing with soap and water? You may be greener than you think.

Aside from some of the obvious changes, start looking at supply options. Switch to biodegradable gauze (you won't know the difference), or invest in metal cassettes and reusable cloth sterilization pouches. You don't have to change everything you do to start to have a positive impact on the environment. In all likelihood, once you've incorporated some of these small changes, you'll start to notice other opportunities for sustainability all around your office. Don't just focus on the treatment areas either. Look at the restroom, waiting area, patient intake process. Installing hand-driers, providing glassware at your coffee station, and taking new-patient forms electronically all make a dent in that carbon footprint.

Has going green had any particular effect on your budget?

For me personally, I feel it has been a wash. True, many eco-friendly products are more expensive than their conventional counterparts, but they often last longer or require less frequent re-ordering. A waterless vac, for instance, will certainly set you back more than the traditional system, but the cost savings on your water bill will be significant over five, ten or twenty years. Cloth sterilization bags are significantly more expensive than paper bags, but a single pouch replaces hundreds of paper sleeves.

How have your patients responded to attending a clinic with a green mission?

Patients love that we're green. More and more, people strive to live a green lifestyle, and going to a dental practice that thinks about the environment is a huge plus for many of our patients. In fact, several seek us out specifically for our eco-conscious mission.

Read more: An expanded interview with Dr. Caligiuri on developing a green practice can be found on the DENTAL ADVISOR Facebook page

Cleaning Efficacy of Monarch Enzymatic Cleaner

John A. Molinari, Ph.D., and Peri Nelson, B.S.

Purpose:

The objective of the study was to investigate the cleaning capabilities of **Monarch Enzymatic Cleaner System** (Air Techniques, Inc.) when challenged with heavily soiled dental instruments.

Experimental Design:

Representative dental instruments (30 dental scalers and 20 periodontal probes) were immersed in freshly prepared **Artificial Test Soil (ATS)** (Healthmark Industries Company, Inc.) mixed with sheep's blood (4:1 ratio). Coated instruments were dried in a 50°C oven for 1-2 hours to create a worst-case scenario (Figure 1). Test ultrasonic cleaner, **Monarch Enzymatic Ultrasonic Cleaner System** (Air Techniques), was prepared as per manufacturer's instructions in a representative ultrasonic unit (**Midmark 250**, Midmark). Contaminated dental instruments underwent a 10-minute cleaning cycle and then quickly rinsed with tap water. Triplicate tests were conducted. A visual inspection of each instrument was completed and recorded at the end of each cleaning cycle (n=3).

Result:

When challenged with a worst-case scenario, **Monarch Enzymatic Ultrasonic Cleaner** was able to successfully remove organic debris from all instruments (Table 1 and Figure 2).

Conclusion:

In this study we challenged **Monarch Enzymatic Ultrasonic Cleaner** with dental instruments heavily soiled with a mixture of Artificial Test Soil (Healthmark Industries Company, Inc.) and sheep's blood. ATS is used as a standardized test soil containing purified proteins (hemoglobin, albumin, amino acids, vitamins, and carbohydrates) that represent what would likely remain on medical instruments and devices. When the ultrasonic cleaner was tested with instruments coated with this commercial test soil, it was able to completely remove organic debris upon visible inspection.

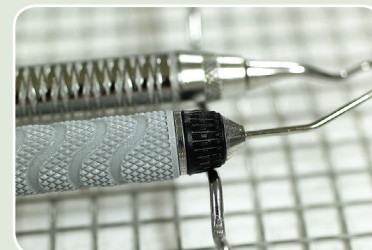
Table 1.

Cleaner	# of Scalers with Debris	# of Probes with Debris
Monarch	0/90	0/60

Figure 1. Representative dental instruments heavily soiled with ATS/blood mixture.



Figure 2. Representative dental instruments cleaned with **Monarch Enzymatic Ultrasonic Cleaner**.



Clinical Consultant SPOTLIGHT

Dr. Tesa Jolly, DDS

- **Practice:** Dr. Tesa Jolly Family Dentistry in Pulaski, TN
- **Clinical Consultant** for 8 years

Getting started in dentistry

Since 11th grade, Dr. Tesa Jolly knew that she wanted to be a dentist. She attributed this to her love of science, an interest in public health and all the orthodontics she experienced growing up. After dental school, she began practicing part time with a local dentist who was nearing retirement. Within six months, that dentist died unexpectedly and she suddenly became a practice owner.

She had experience with mission work, and with the help of the caring women in her office, she began to plan a gift to the people of her town. During the first **"Free Dental Day"** in 2008, approximately 100 people were served. As awareness grew, over 200 volunteers donated time. *"We have seen as many as 500 patients in a day. I also had a growing awareness of the dental needs in the Amish community nearby. As I became familiar to them, they trusted my practice more. I've been paid in cash, quilts, produce and baskets! I'm honored to have earned their confidence,"* says Dr. Jolly.

Later, an organization called **Hope Smiles** encouraged her to travel to China to provide dental care to workers in orphanages. She visited three times and has since adopted two children from orphanages. She now has four wonderful children, two with special needs. Dr. Jolly states that *"working on the dental challenges of the rural Chinese people and the Amish has provided me with interesting and atypical clinical experiences. It aids in my intentions to be a life-long learner, always improving my expertise."*

"Working on the dental challenges of the rural Chinese people and the Amish has provided me with interesting and atypical clinical experiences. It aids in my intentions to be a life-long learner, always improving my expertise."



Dr. Jolly loves the idea of being exposed to new dental products that benefit her patients while also providing valuable feedback to other dentists and companies. She says, *"I look forward to checking my email every Wednesday to see the new products available for review. I have found many of my favorite dental products by reviewing them as a Clinical Consultant. I also rely on DENTAL ADVISOR's ratings when I'm looking to purchase new dental products."*



Another of Dr. Jolly's goals was to find a professional organization to call "home," where she could continue to develop educationally. She cites her involvement with the continuing education programs of American Academy of Cosmetic Dentistry for providing that growth. From the AACD she received the prestigious **Evy Award** twice (both Rising Star and Humanitarian).

She is now a state-of-the-art hometown dentist. Her office prides itself in traditional values and hospitality. In 2019, she received the **Lucy B. Hobbs Award for Humanitarianism**, an honor that she counts as an accolade earned with the help of her whole town.

Learning about DENTAL ADVISOR

Dr. Jolly's first introduction to DENTAL ADVISOR happened in 2011 when she met Dr. Sabiha Bunek at an AACD scientific session. Dr. Bunek told her about DENTAL ADVISOR and their mission to provide evidence-based and clinically relevant information to the dental community. She described how a Clinical Consultant and their staff have the opportunity to integrate selected dental products into their daily routine, use the products regularly over a given period of time and then complete surveys.



33 CLINICAL EVALUATORS

457 TOTAL USES

96% CLINICAL RATING

Key features: Evacuation line cleaner • Microbes breakdown build-up
• Twice weekly use • Environmentally friendly

Description

AQ-Solution, microbial and enzymatic evacuation line cleaner:

- Has a PH-neutral formula that complies with EPA Mandates
- Is the most environmentally-friendly cleaner on the market
- Contains microbes that continue working between uses
- Minimizes the need for trap cleaning
- Is amalgam containment system approved

Indications

- Remove existing build-up in evacuation lines
- Maintain evacuation lines

Unique Attributes

- Made with 100% recycled water
- Living microbes break down and digest the buildup in evacuation lines, pipes, traps, and amalgam separators
- Decreases buildup in traps
- Does not require daily use to be effective

Clinical Tips

- Hold the straws from the water bottles in place when connecting and removing HVE and SE.
- Make sure to follow the start up directions first before going to twice a week.



**"INCREDIBLY
POTENT AND
EFFECTIVE."**

Evaluators' Comments

"Love the product and the time it saves!"

"It had a clean, fresh smell."

"Noted a difference in the strength of my suction after the first use."

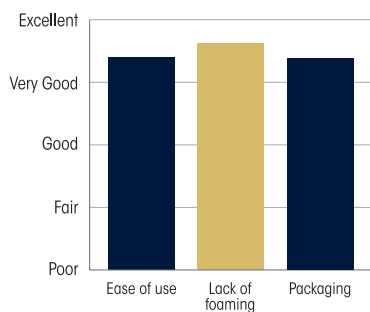
"Less solution to run through than others."

"There was not much difference in my trap when I cleaned it."

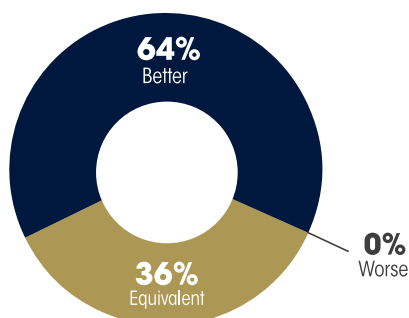
"The bottle that you fill was small and top-heavy once the hoses were attached."*

*Editor's note: The bottle has since been redesigned since this evaluation was completed.

Evaluation Summary:



Compared to Competitive Products:



Percentage of Consultants Who Would:

55% Recommend instead of product they currently use

39% Recommend in addition to product they currently use

6% Not recommend



34 CLINICAL EVALUATORS

421 TOTAL USES

96% CLINICAL RATING

Key features: Resin-reinforced glass ionomer cement • Tack-cure feature
• Syringe delivery system

Description

FujiCEM® Evolve is an innovative resin-reinforced glass ionomer cement with:

- Trustful performance to lute any retentive zirconia, lithium disilicate, or metal-base restorations
- Enjoyable convenience thanks to a modern delivery
- High radiopacity
- Locking tip

Indications

- High-strength, all-ceramic (zirconia) crowns and bridges
- Composite inlays, onlays, crowns, and bridges
- All-ceramic inlays
- Metal, ceramic and fiber posts
- Metal and porcelain-fused-to-metal (PFM) crowns and bridges

Unique Attributes

- Highest bond strength to zirconia among RMGI cements tested at DENTAL ADVISOR biomaterials lab
- High radiopacity
- Three-second tack cure
- 4 minute 30 second set time after seating
- No primer necessary when cementing retentive zirconia, lithium disilicate, or PFM restorations
- Moisture tolerant



Clinical Tips

- Make sure the tip is locked in properly before use.
- Remove cement from contact points first before it sets too much.
- Bench test tack feature before using the first time intraorally to determine the time needed with your curing light.
- New tip design allows for automix or hand mixing material.

**"CONVENIENT
AUTO-MIX
SYSTEM."**

Evaluators' Comments

"Easy to use and easy to clean excess cement with tack-cure feature."

"I liked the way it dispensed much better than what I use now."

"Works just as well as the FujiCem 2 that I have used for years with unparalleled success."

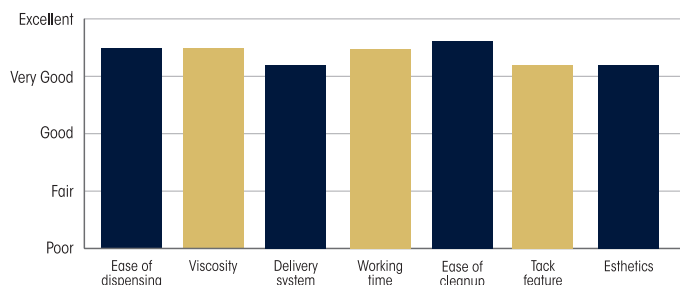
"The color is easy for visualization."

"Sensitivity is low for patients."

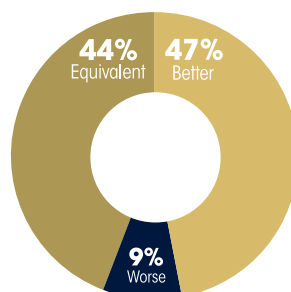
"The newly designed mixing tip was cumbersome to place and I had a tip pop off when trying to extrude."

"It took two cures to get the material to tack with our light."

Evaluation Summary:



Compared to Competitive Products:



Percentage of Consultants Who Would:

94% Recommend to a colleague

6% Not recommend

**Consultants Who Would
Want to Stock in Office:**

33% Yes, instead of current material

49% Yes, in addition to current material

9% No; however, might want for certain cases



37 CLINICAL EVALUATORS

909 TOTAL USES

91% CLINICAL RATING

Key features: Sonic-activated, bulk-fill composite system

- Sonic handpiece
- Proprietary bulk-fill composite material

Description

SonicFill™ 3 is a sonic-activated, bulk-fill composite system that:

- Uses sonic energy from a special handpiece to reduce the viscosity of the composite material, making it flowable upon placement.
- Once the sonic energy from the handpiece is removed, the material becomes sculptable.
- Possesses a high depth of cure (5 mm).
- Helps you craft quality restorations in one efficient step by eliminating the need for a liner or capping layer.
- **Kavo MULTiflex™** coupler required for use

Indications

- Direct placement in all cavity classes, both in anterior and posterior teeth
- Base/liner material
- Repair of enamel defects, provisionals, and porcelain restorations
- Pit and fissure sealants
- Luting of composite/ceramic veneers
- Incisal abrasions and minor occlusal build-ups
- Core-buildups

Clinical Tips

- The material straddles the line between a flowable and a packable composite. Those who like to sculpt a lot of anatomy before curing may find this material a little difficult to sculpt.
- The handpiece works best at 30-50 psi.
- Remember that you can adjust the speed dial on the bottom depending on your preference and size of your restoration.
- Take your time to polish, because the result will be fantastic!
- Make sure to turn off the water when switching from your handpiece to the **SonicFill 3** handpiece.



Unique Attributes

- Bulk fill up to 5 mm
- Better non-sticky handling compared to previous versions
- Sonic handpiece that makes material flowable during placement
- One-step placement with no need for placing a liner or final capping layer

"POLISHABILITY OF THE COMPOSITE IS EXTRAORDINARY!"

Evaluators' Comments

"I loved the ease of working with this composite. The finish is beautiful. Shade match was excellent. I loved how my fillings looked. It was hard to tell what's tooth and what's filling."

"Delivery system is innovative and allows for faster placement."

"Loved the consistency during packing. We normally use a flowable as a liner and this material eliminates that step."

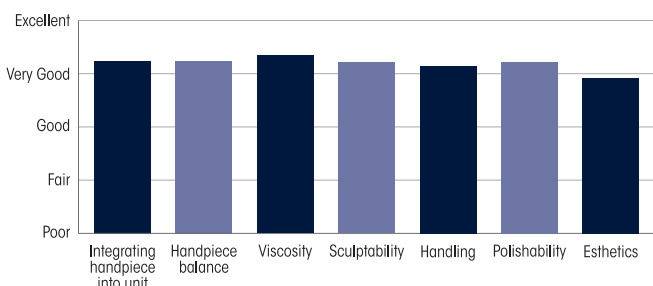
"I liked the way it adapts to the cavity form and walls."

"It has a thicker tip that was challenging to place inside small proximal boxes."

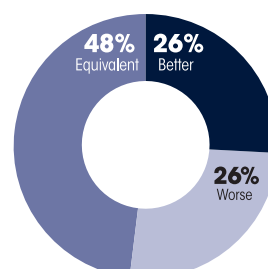
"The handpiece makes a noise that is very noticeable at first."

"I encountered occasions where I would find a void in the proximal box of a Class II. However, I found that keeping the tip submerged while dispensing prevents voids."

Evaluation Summary:



Compared to Competitive Products:



Consultants Who Would:

86% Recommend to a colleague

14% Not recommend to a colleague

Consultants Who Would Stock in Their Office:

9% Yes, instead of current product

63% Yes, in addition to current product

14% No, I would order it for certain cases



28 CLINICAL EVALUATORS

626 TOTAL USES

92% CLINICAL RATING

Key features: Glass hybrid restorative material • Bulk fill • Requires the use of a triturator • System includes light-cured **EQUIA Forte® Coat**

Description

EQUIA Forte® HT:

- New innovative member of GC's Glass Hybrid family
- Bulk-fill glass hybrid restorative system
- Designed to provide a unique long-term solution for your posterior restorations
- Ideal restorative treatment for high-risk caries and pediatric patients
- Intelligent particle size and distribution allowing superb handling
- Optimal marginal seal for long-term resistance to microleakage
- High, rechargeable, fluoride release at tooth-restorative interface
- System that includes resin coating: **EQUIA Forte Coat**

Indications

- Class I restorations
- Stress-bearing Class II restorations (with specific preparation)
- Non-stress bearing Class II restorations
- Intermediate restorations
- Class V and root surface restorations
- Core build ups

Unique Attributes

- Improved translucency and strength
- System includes **EQUIA Forte Coat**, resin coating, which increases strength
- New flip top dispensing for **EQUIA Forte Coat**



Clinical Tips

- This material is soft and cuts really easy when prepping for a core buildup.
- You want to sculpt it before it hardens too much as it gets stickier as it sets up.
- Use a fine diamond to finish.
- For Class V restorations, packing the material with your finger works well to contour to the root structure and is sometimes easier than using an instrument.
- Can use with cavity conditioner to improve adhesion.

"SET UP QUICKLY AND DID NOT STICK TO MY MATRIX BAND."

Evaluators' Comments

"Nice finish and polish with the **EQUIA Forte Coat**."

"Easy to pack, even in subgingival areas."

"When doing a core buildup and having to pack and contour to create a wall, this material makes it easy while also being less messy."

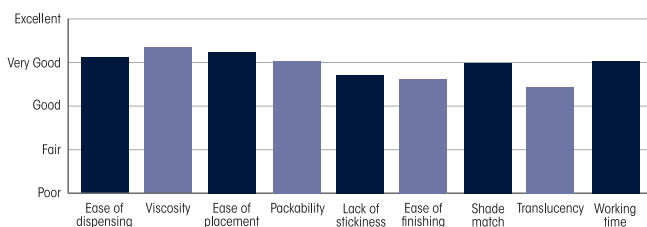
"Placed it on a sensitive tooth and it took the sensitivity away."

"I don't like that it has to be triturated."

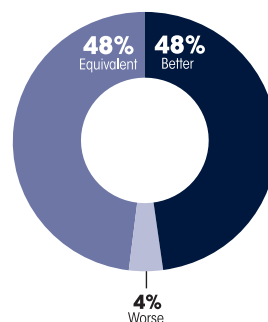
"Great for pediatric patients, however, once you consider the activating/dispensing gun as well, it can be bulky."

"A lot of steps, especially if you use the cavity conditioner."

Evaluation Summary:



Compared to Competitive Products:



Consultants Who Would:

89% Recommend to a colleague

11% Not recommend to a colleague

Consultants Who Would Stock in Their Office:

37% Yes, instead of current RMGI material

44% Yes, in addition to current RMGI material

15% No, but I would want to order it for certain cases

4% No, I would order it for certain cases



37 CLINICAL EVALUATORS

1,018 TOTAL USES

96% CLINICAL RATING

Key features: Universal, light-cured bonding agent • Single-bottle system
• Can be used with self-etch, selective-etch and total-etch techniques

Description

OptiBond™ Universal is a single-component, light-cured adhesive that:

- Provides excellent adhesion to a variety of surfaces and substrates for direct and indirect applications
- Simplifies the bonding procedure, making it less technique sensitive
- Can be used with self-etch, selective-etch and total-etch techniques.
- Has a low film thickness of approximately 5 microns

Indications

- Light-cured composite and compomer restorations
- Composite/ceramic/metal repairs
- Cavity sealing for amalgam restorations
- Porcelain, composite and metal-based inlays, onlays, crowns and bridges
- Light-cured or dual-cured core buildups
- Veneers
- Endodontic posts
- Cavity sealing as a pretreatment for indirect restorations
- Only for use with *NX3* or *MaxCem* cement when cementing metal, alumina or zirconia restorations

“OVERALL, VERY GOOD BOND STRENGTHS IN THE CONVENIENCE OF A SINGLE BOTTLE.”



Available in both bottle and uni-dose.

Unique Attributes

- More effective enamel etching than other single-component adhesives
- One-coat application
- Does not need separate activator for dual-cured materials

Clinical Tips

- The material's film thickness and color make it perfect for anterior and shallow restorations.
- Can be used on metal partial denture repairs confidently.
- One-step process is very helpful when working on kids.

“NICE TO GET QUALITY CHEMISTRY INTO A SINGLE BOTTLE.”

Evaluators' Comments

“Versatile bonding agent. It can be used for all surfaces for direct and indirect adhesion.”

“Predictable results, easy to use, good wetting, and simple.”

“Light in color and low film thickness.”

“Wets the surface well. Leaves a nice shiny surface to see that adhesive is applied well.”

“Compatible with dual-cured core materials without a separate activator.”

“Bottle dispenser allowed too much to come out at a time. I preferred the unidose.”

“Evaporates fairly quickly.”

Bond Strength (MPa) OPTIBOND UNIVERSAL

Self-etched dentin



IPS e.max CAD



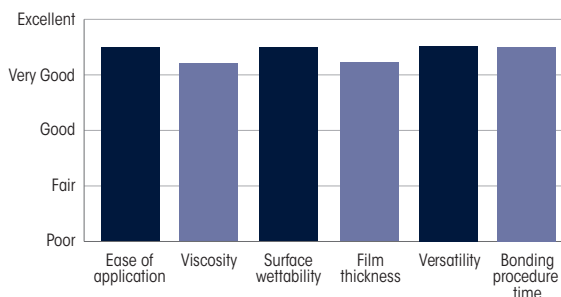
Self-etched enamel



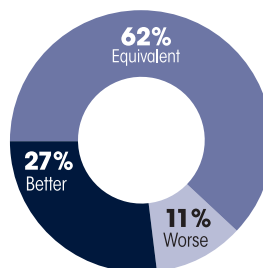
Zirconia



Evaluation Summary:



Compared to Competitive Products:



Consultants who would:

95% Recommend to a colleague
5% Not recommend to a colleague

Consultants who would want to stock in office:

32% Yes, instead of current bonding agent
46% Yes, in addition to current bonding agent
8% No, however, I might want to order it for certain cases



35 CLINICAL EVALUATORS

960 TOTAL USES

91% CLINICAL RATING

Key features: Flowable (injectable) composite • Three viscosities (High Flow, Medium Flow, Super Low Flow) • Up to 12 shades (available shades vary with viscosity)

Description

Estelite Universal Flow is a supra-nano filled flowable composite with:

- Spherical filler technology
- Three different viscosities to provide clinicians with the ideal flow for a wide range of indications
- Higher filler content than traditional flowables
- Shades that will blend with several tooth shades
- Exceptional polishability and superior gloss retention
- High compressive and flexural strengths, long-term wear resistance, low shrinkage stress

Indications

- Direct anterior and posterior restorations
- Blocking out cavity undercuts before fabricating indirect restorations
- Cavity base or liner
- Repair of porcelain/composite

Clinical Tips

- The Medium Flow has just the right amount of flow and is easy to contour in Class V situations.
- The Medium Flow is definitely the most versatile.
- The super low viscosity (High Flow) was great when doing Invisalign attachments.
- You can actually sculpt the Super Low Flow with a conical burnisher or flat composite instrument.



Unique Attributes

- Three viscosities:

Super Low Flow

- Non-slumping, non-runny, precision stacking
- Recommended for Class I, II, III, IV restorations
- Six shades available

Medium Flow

- High versatility, less slumping, less runny
- Recommended for Class I, II, III, IV, V, shallow Class V, and incisal restorations; or, as a cavity liner
- Twelve shades available

High Flow

- Easy placement, flows well
- Recommended for shallow Class V restorations or as a cavity liner
- Seven shades available



"OUTSTANDING ESTHETICS, IMMEDIATE AND VERY HIGH GLOSS."

Evaluators' Comments

"Different viscosities offer many options for treatment modalities."

"Polishability, blendability and color match were just fabulous."

"My new go-to in difficult areas, especially the Super Low Flow."

"Beautiful results for cervical carious lesions."

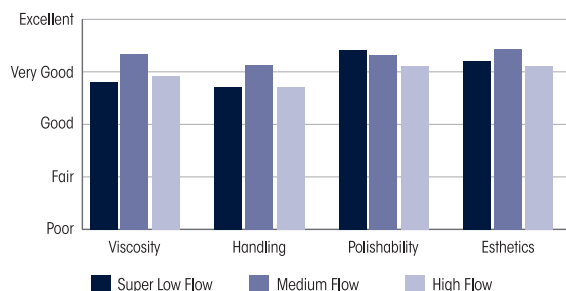
"The low flow lived up to its name, however, I found less opportunities to use it than the other viscosities."

"The flow was different from what I'm used to. I like a flowable that has a high viscosity and lower flow. These seemed a bit runny for my taste—but still a great product."

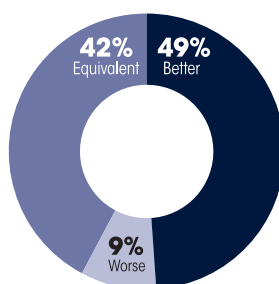
"There was a learning curve deciding which viscosity was best suited for each use."

"I'm not sure if all viscosities are really necessary to be stocked by a dental office, it would be a lot of inventory."

Evaluation Summary:



Compared to Competitive Products:



Consultants who would:

85% Recommend to a colleague
15% Not recommend to a colleague

Consultants who would want to stock in office:

30% Yes, instead of current product
46% Yes, in addition to current product
18% No, however I might want to order it for certain cases



39 CLINICAL EVALUATORS

560 TOTAL USES

96% CLINICAL RATING

Key features: Resin-modified calcium silicate • Automix • Dual-cured
• Allows for immediate restoration placement

Description

TheraCal PT® is a biocompatible, dual-cured, resin-modified calcium silicate that is used for pulpotomy treatment.

TheraCal PT:

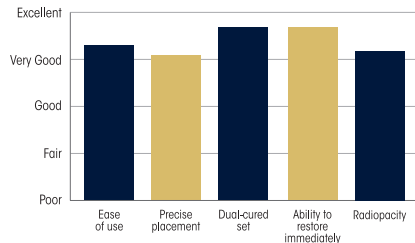
- Maintains tooth vitality by performing as a barrier and protectant of the dental pulpal complex.
- Precise and direct placement allows its use in deep cavity preparations.
- The dual-cured set permits immediate placement of the restorative material.
- Alkaline pH of 11.5
- Physical properties that resist breakdown and degradation leading to a durable seal
- Minimum of 45 second working time and maximum of 5-minute set time (dual-cured)
- Secondary indication for direct and indirect pulp capping

Unique Attributes

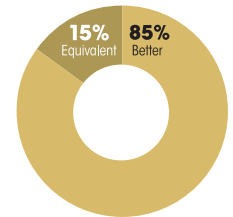
- Calcium release
- Dual-cured mode allows for a 10-second light cure and immediate placement of restoration
- Moisture tolerant



Evaluation Summary:



Compared to Competitive Products:



Clinical Tip from Evaluators

- Very firm after light curing, so feel confident to place bonding agent and restoration after the 10-second cure.

Primary Indication

- Pulpotomies

"GOOD WORKING TIME AND HARD SET AFTER LIGHT CURING."

Evaluators' Comments

"Easy application with bendable metal cannula."

"Great consistency - it flows well while adapting to surfaces... even axial walls."

"I believe it is a superior product with good clinical results."

"I already called Bisco and ordered another syringe!"

"I needed to apply a lot of pressure to express from the tip."

"Tip was a little wide."

SPECIAL THANKS TO:

Select Senior Clinical Consultants (Over 20 years):

R. Fisher, OH • E. Katkow, MD • J. Lockwood, MI • G. Poy, MI • R. Trushkowsky, NY • P. Yaman, MI • K. Baker, TX • F. Berman, PA • J. Bostic, OH • L. Brimhall, MT • M. Briskin, NY • W. Brownscombe, MI • R. Ciocone, MI • C. Colbert, MI • M. Conrad, PA • R. Dost, VA • J. Doueck, NY • M. Eannaccone, NY • K. Fairbanks, MI • M. Feinberg, NY • K. Fischer, IN • G. Franco, NY • N. Garlisi, OH • S. Graber, IL • P. Grandsire, NY • E. Gutman, NY • D. Haas, Ontario • K. Hamlett, TX • G. Hart, OH • R. Herwig, KS • J. Kaminski, MI • R. Kaprielian, NJ • M. Kastner, OH • D. Keren, NY • M. LaMarche, WA • J. Leitner, MI • S. Lever, MD • R. Lezell, MI • M. Man, NY • B. Manne, FL • N. Mansour, MI • N. Markarian, CA • C. McLaren, MI • J.W. Mikesell, IL • R. Mizrahi, NY • G. Mosso, PA • E. Mosso, PA • J. Nosh, MI • A. Nazarian, MI • R. Oshrain, NY • J. Paris, TX • D. Parris, GA • M. Patel, MI • D. Peterson, MD • T. Pieper, WY • D. Pitak, MI • V. Plaisted, NY • D. Qualliotine, NC • G. Raichelson, Ontario • G. Reskakis, NY • K. Schwartz, FL • J. Shea, MO • B. Shumaker, NJ • B. Sims, NY • P. Symeonides, NY • H. Tetelman, OH • C. Trubschenck, CA • S. Ura, NH • W. Walcott, MI • M. Waranowicz, MI • L. Wee, MI • H. Yeung, CA • P. Zanetti, MI • S. Zimmer, MI

Clinical Consultants (19 years or less):

D. Aaron Matatiah, CA • A. Albright, NY • B. Argersinger, NC • R. Arif, OH • P. Arsenault, MI • G. Ash, MI • S. Baker, GA • M. Bannan, NC • B. Barricklow, OH • L. Bartoszewicz, MI • B. Bauer, IL • J. Bechtel, MI • J. Bechtel, MI • M. Best, MI • L. Bishop, MI • T. Bizga, OH • G. Bloomfield, MI • G. Bonior, MI • C. Brown, IA • E. Brust, MI • S. Bunek, MI • J. Bunek, MI • J. Bush, PA • H. Cadorette, MI • M. Capalbo, RI • M. Caligiuri, CA • P. Campo, NY • P. Cracchiola, MI • D. Chacko, TN • P. Chaiken, IL • R. Cherry, FL • R. Chuang, CA • M. Connelly, MI • S. Crawford, MI • J. Curley, NC • W. K. Dancy, GA • S. Dillingham, NY • K. Dobracki, MI • S. Doniger, IL • J&E Duski, MI • A. Dutko, MI • M. Egbaria, IL • M. Elford, MI • O. Erdt, MI • K. Evanoff, MI • M. Evers, OH • F. Facchini, MI • F. Falcao, FL • L. Feldman, NJ • G. Fink, DE • M. Frankman, SD • M. Glovis, MI • C. Goldin, MI • M. Grant, MI • A. Green, MI • R. Green, MI • B. Greenwood, UT • J. Griffin Jr., MO • K. Grindling, MI • P. Gronet, KY • R. Grossman, PA • H. Gulati, MI • F. Haddad, CA • J. Haddad, CA • A. Hakhamian, CA • J. Hamerink, MI • W. Hanna, MI • A. Harris, OH • J. Hastings, CA • A. Hodges, NC • C. Huang, CA • M. Huberty, WI • J. Ireland, MI • S. Irwin, NJ • C. Jaghab, MI • J. Jaghab, MI • W. Jenkins, MI • T. Jolly, TN • R. Juluri, IL • M. Kachi-George, MI • D. Kapp, NY • J. Kane, MI • Y. Kang, MA • J. Karam, MI • G. Karaouzas, MI • E. Kelly, GA • J. Kelly, GA • L. Kemmet, MN • M. Koczarski, WA • L. Knowles, MI • B. Kolb, MI • GA Krishnan, CA • E. Kuns, OH • C. Laird, OR • L. Lam, CA • R. Le, NC • I. Levine, NY • E. Lowe, BC • CAN • J. LueYen, GA • A. Malkis, NY • C. Manduzzi, MI • J. Mangut, MI • K. Mantzikos, NY • B. Mayday, MI • T. McDonald, GA • J. McLaren, MI • M. McMullin, MI • G. Meylan, MI • M. Migdal, MI • M. Miller, NC • J. Mills, MI • J. Minsky, CA • L. Montes, NY • A. Moore, NC • L. Motyl, MI • M. Murphy, MI • M. Murrell, MI • L. Musgrave, MI • M. Nasif, MI • B. Neren, NY • J. Neuman, MI • J. Olitsky, FL • J. Olsen, MI • E. O'Neil, MI • F. Orlando, NY • S. Owens, MI • A. Paal, TX • P. Panchal, NC • R. Parikh, IL • J. Parrott, MI • U. Patel, CA • D. Perkins, MI • N. Pelachyck, MI • B. Peterson, MD • W. Phillips, MI • S. Piazio, NJ • B. Picot, NC • C. Pike, MI • C. Piontkowski, MI • B. Pittsley, MI • J. Paskozim, IL • B. Pournaras, SC • A. Prince, UT • D. Radtke, MI • G. Ramos, NY • C. Ramsey, FL • G. Rashall, TX • S. Reddy, MI • N. Rego, CA • J. Riggs, MI • M. Rojas, IL • J. Rowe, AR • J. Rubin, DC • A. Saddy, MI • S. Salhadar, MI • P. Saurer, OH • P. Scalia, MI • C. Scanlon, MI • J. Schau, MI • K. Schier, MI • A. Schraner, NY • V. Scalia, CA • L. Seluk, MI • R. Selvan, NJ • Y. Shaheen, MI • M. Shapiro, MI • A. Shemesh, IN • E. Simanion, CA • S. Simos, IL • J. Slatkoff, FL • J. Smith, MI • C. Stevens, OK • B. Stieper, MI • R. Surana, CA • G. Suttan, CA • G. Taranola, FL • T. Teel, IN • C. & L. Thorpe, MI • L. Trost, IL • S. Uchil, MI • A. Valentine, MI • H. Vann, MS • C. Vinkovich, OH • J. Weinfield, MI • B. Wilk, PA • K. Wilson, MI • D. Wolf, MA • W. Wright, CA • Y. Yi, MA • D. Young, MI • S. Yun, MI • M. Yurth, WA • J. Zanetti, MI • A. Zucker, OH

Laboratory Consultants:

Apex Dental Milling, MI