

THE DENTAL ADVISOR™

Improving Patient Care Through Research & Education



Photo by Allan Munsie

Upgrading the Office

Throughout the year, THE DENTAL ADVISOR reports on products and equipment designed to enhance your practice. This issue is a culmination of this research resulting in a guide to office design and upgrades. From new graduates starting a practice, to existing practices desiring to stay current, this issue aims to outline considerations regarding the implementation of the latest technology, equipment and services available to dental practices.

December 2015

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www.dentaladvisor.com

RATINGS :

Excellent	++++
Very Good	+++
Good	++

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From the Desk of Dr. Bunek, Editor-in-Chief



In clinical practice, we are constantly striving to work smarter with the most up to date and efficient products and equipment. The end of the year provides the opportunity for us to plan for some of these changes. Having a game plan is absolutely necessary in avoiding pitfalls such as spending outside your budget, under-utilizing equipment, and falling short of meeting the practice's needs. It is essential to break the practice down into categories, prioritize your needs, and compare these needs to the latest available equipment and technology before you begin "shopping". In this issue, our guest author, Mary Yakas, simplifies this otherwise complex task. As always, thanks for reading!



Planning for changes in your practice

When you are considering upgrades to your practice, it is easiest to divide the office into three areas:

1. Core Equipment:

Refers to the items a practice needs to perform dentistry. This category encompasses three areas of your office:

- **Operatory** (delivery systems, stools, patient chairs, etc)
- **Mechanical** (vacuums, air compressors, amalgam separators)
- **Sterilization** (autoclaves, sterilizers, ultrasonics)

2. Digital Technology:

Refers to equipment related to imaging (radiography, caries detection) and CAD/CAM dentistry. Although we do not need this equipment to practice dentistry, imaging does greatly improve diagnostic capabilities and introducing CAD/CAM to your office will improve accuracy.

3. Business Solutions:

Refers to front desk operations. Many practices will perceive a dichotomy between the business area and the clinical area when it comes to assessing the need for change. However, both areas are interdependent. In order for practice growth to occur, the business, marketing, and patient customer service must match the clinical experience of the patient wherever possible.

Before buying, consider if your purchase will:

- Improve diagnosis
- Improve treatment planning
- Perfect or improve clinical process
- Increase efficiency
- Attract patients
- Provide superior service to patients

1

Core Equipment

- Operator
- Mechanical Room
- Sterilization Center

Factors to consider for replacement

- What is the general condition of large equipment in the office?
- Are all chairs, units, and lights working properly?
- Are dental stools comfortable and ergonomic for operators?
- Are suctions strong and able to accommodate all operatories during a busy day?
- Are dental unit waterlines being properly maintained?
- Is the compressor easy to maintain and providing adequate power to handpieces?
- Are handpiece turbines lasting for at least 6 months?
- Does the sterilizer perform consistently, providing dry instruments with each run?

What to look for in the area of Core Equipment

Chairs and Delivery Systems: New chairs and delivery systems have been streamlined, with both patient and operator in mind. Ergonomics play a critical role here. When examining your current chair, delivery system, overhead light, and dental stools, be sure you simulate procedures. This makes it easy to identify areas of improvement. Try placing yourself in the patient's position, literally. Viewing the operator from the patient's vantage point provides a new perspective, and allows you to experience what the patient sees and feels while in the chair. Look for convertibility and/or portability when it comes to delivery systems and carts.

Overhead lighting: Newer models provide a change from traditional halogen to LED with multiple bulbs providing brighter, clearer light. Some practitioners are opting out of overhead lights in favor of clip on lamps attached to their loupes, thereby avoiding challenges of continually adjusting an overhead light during a procedure. Hands-free on/off switches are available for consideration.

Sterilization and Instrument Processing: Dry instruments coming out of the sterilizer continues to be an issue for many offices. Although techniques can be changed and sterilizers maintained to avoid these issues, an investment in a Class B (or post-vacuum) sterilizer is an excellent option. We have found through surveys of our readers that sterilizer capacity is an issue, and many practices overload their sterilizer. Consider purchasing a second sterilizer if your practice is unable to sustain an efficient daily workflow.

Instrument Cassettes: Although not new to the market, cassettes assist practices in streamlining procedures, and forces systematic organization of instruments. With this investment, often it is recommended to purchase an instrument washer and disinfectant, as many ultrasonic units have size limitations and processing time can actually increase due to lack of space in a traditional ultrasonic.

Dental Handpiece Maintenance: This is a piece of equipment that can greatly improve the life of handpieces. Though not new to the market, automated systems exist to ensure proper cleaning and lubrication of handpieces.

Dental Unit Waterline Maintenance: Currently, there are no federal mandates requiring water testing and purification; however, products and equipment have been introduced to the market which assist practices in easy and efficient treatment of dental unit waterlines.



Factors to consider

- Does your office have digital x-ray?
- Would the office benefit from panoramic or cone beam technology?
- How is your office diagnosing caries?
- How is your office educating patients on treatment needs?
- Would the office benefit from a laser?
- Is the office satisfied with their impression technique and crown fit?
- Would the office benefit from a digital impression system and/or CAD/CAM Mill?

2

Digital Technology

● CAD/CAM ● Imaging

What to look for in the area of Digital Technology

Digital Impressions and CAD/CAM: New to this arena are impression scanners, which allow a dental practice to continue utilizing a traditional impression technique, but digitizes the process via a digital “box” scanner. This allows transmission of a digital file to a laboratory, where many crowns can be fabricated without a model. For those offices wishing to adopt total digital technology, the option of an intra-oral scanner, or a scanner and in-office mill are still available. It is important to assess the types of restorations your practice performs prior to deciding which digital technology is right for you.

Digital Radiography: Integration remains the predominant challenge in effectively adopting a digital radiography system. In addition, the high cost of replacing digital hard sensors and durability of sensors can create financial road blocks. Phosphor plate technology has evolved from large scanners to smaller chairside boxes where peri-apical radiographs can be processed immediately. It is always wise to consult a computer network specialist experienced in dental practice to ensure a smooth transition to computerized operatories. Many issues can stem from improper computer capacity, work station and network setup.

Cone Beam: Cone Beam technology can be a real game changer for the right practice, allowing for 3D visualization and re-defining treatment planning capabilities. However, be sure to research state laws regarding who is qualified to read images and what is being covered by insurance.

Digital Caries Detection: Caries detectors have continued to evolve and now offer a more sound technology to assist clinicians in diagnosis, utilizing pictorial diagnostics combined with numerical values. Previous models were cumbersome to calibrate and many dental professionals complained of false positives.



3

Business Solutions

● Practice Management ● Computer Hardware ● Customer Service

Factors to consider

- Is your office computerized and automated?
- How are patients reminded of their appointments?
- What does your website tell others about your office?
- How can patients provide a review of your office?
- What is your social media presence and how do new patients find you?
- Can patients schedule, communicate, and pay online?
- Is your office HIPAA compliant in communication with specialists?



What to look for in the area of Business Equipment and Services

Patient Reminder Services: In an age of smartphones and mobility, many services have appeared that work with practice management software to market services, provide appointment reminders, perform surveys, and gain testimonials. Before choosing a service, be sure that systems to track recare and treatment planning are accurate and organized.



Social Media Assistance: Having a social media presence is imperative in staying relevant in the current market. If you are not savvy in this arena, consider looking to external resources who can manage your presence on *Facebook, Twitter, Pinterest, LinkedIn,* and review sites such as *Yelp*.

Website Assistance: Several services are available to design, maintain,

and promote your practice through your website. Social Media options are also built into many design packages, as well as patient modules for correspondence with the office via private and secure portals. This allows a patient better accessibility to your practice when your team members are not available. Patient forms can be downloaded or completed online, appointments confirmed or viewed, and payments made. In addition, portals for patient appointment requests or questions can be made available.

HIPAA Compliant Portals: With new HIPAA laws effective in 2013 and 2014, many practices still have not achieved compliance in all areas of correspondence. Secure online portals are now available to assist dental professionals in sharing photographs, radiographs, and case referrals which are HIPAA compliant. This allows a new level of collaboration with specialists for comprehensive care.



Summary

Upgrading your office involves many options in several areas. As a team, it is very important to discuss the priorities of the practice from many vantage points. Only then will change be truly successful. Creating a strategic plan with timelines for both purchase and implementation into practice is the most realistic way to ensure that any investment made, whether in time, money, or both, is of benefit.

Environmental Surface Wetness Test: Comparison of Disinfectant Wipes

Purpose: To determine the extent of surface wetness for hydrogen peroxide disinfectant wipes compared to competitor environmental surface disinfectants.

EDITORIAL CORRECTION

Apologies to our readers and to SciCan: Incorrect information was published in our November 2015 print issue. The study is entitled, Environmental Surface Wetness Test: Comparison of Disinfectant Wipes. In the November issue, 3-Minute **OPTIM Blue** was listed as a disinfectant wipe tested; 3-Minute **OPTIM Blue** is only sold in Australia and New Zealand. The following study features **OPTIM 33TB**.

Methods and Materials:

Four tables, each measuring 12.5 sq. ft., were cleaned using a non-antimicrobial soap, rinsed with DI water, and then air dried prior to testing. The newly cleaned laboratory tables were sectioned off into equal quadrants. A single disinfectant wipe (**Table 1**) was used to wet quadrant I (**Figure 1**). A bactericidal/virucidal contact time was used for each disinfectant that represented the biocidal range for the majority of microorganisms commonly found in a dental facility. Once the contact time was reached, cigarette paper (4.5 x 7.5 cm) was passed across the table's surface to detect the presence of liquid (**Figure 2**). If the surface remained wet for the entire length of the contact time, the table was re-cleaned with soap and water, as described above, then the test was repeated using a new single wipe but with an additional quadrant to cover. For every positive result the test was repeated with the addition of another surface quadrant. Testing concluded once a disinfectant solution failed to remain wet for the instructed contact time. Each test surface disinfectant was tested in triplicate.

Table 1: Total exposure time and active ingredients of test disinfectants

Surface Disinfectants Tested	Most Common Bactericidal/Virucidal Contact Times (minutes)	Active Ingredients
Optim 33TB (SciCan)	1	Hydrogen peroxide
Caviwipes (Kerr Totalcare)	3	Isopropanol, Ethylene Glycol Monobutyl Ether, Diisobutylphenoxyethyldimethylbenzylammonium chloride
Super SaniCloth (PDI)	2	n-alkyl dimethyl ethylbenzyl ammonium chloride, n-alkyl dimethyl benzyl ammonium chloride, isopropyl alcohol
Birex (Biotrol)	10	o-phenylphenol, o-benzyl-p-chlorophenol
FD 350 (Durr Dental)	5	1-propanol, ethanol
Mikrozid AF (Schülke)	5	Propan-1-ol, ethanol
Omniwipes (OmniDent Dental)	1	1-propanol, ethanol, didecylidimethylammonium chloride



Figure 1:
A disinfectant wipe being used on a single quadrant.

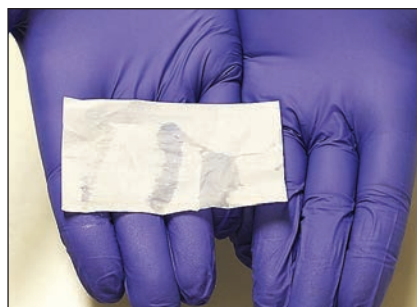


Figure 2: A wet sheet of cigarette paper proving the surface was still wet once the contact time was met.

Results

Of the surface disinfectants tested, SciCan's **Optim 33TB**, outperformed the other test solutions by maintaining wetness on a surface twice the size (4 quadrants) of the next best performing solution **Caviwipes** (2 quadrants) (Table 2). **Super SaniCloth** and **Omniwipes** were only able to successfully wet 1 quadrant for the allotted contact time. The remaining test solutions, **Birex**, **FD 350**, and **Mikroqid AF**, were unable to maintain a wet surface within a single quadrant.

Table 2. Number of quadrants successfully wiped

Disinfectant Solution	Test 1	Test 2	Test 3	Average
Optim 33TB (SciCan)	4	4	4	4
Caviwipes (Kerr Totalcare)	2	2	2	2
Super SaniCloth (PDI)	1	1	1	1
Birex (Biotrol)	0	0	0	0
FD 350 (Durr Dental)	0	0	0	0
Mikroqid AF (Schülke)	0	0	0	0
Omniwipes (OmniDent Dental)	0	1	1	1

Summary

An important factor to consider concerning environmental surface asepsis is the length of time surfaces remain wet after application of a disinfectant. In this study 7 disinfectant wipes were evaluated for their ability to maintain wetness when using a designated contact time. Four surface quadrants treated with **Optim 33TB** remained wet for the 1 minute contact time. In contrast, the other commercial disinfectants were unable to maintain surface wetness past 2 quadrant applications. The 2 high alcohol preparations (**FD 350**, **Mikroqid AF**) and dual phenolic (**Birex**) wipes dried faster than the contact time given on the label. In summary, the hydrogen peroxide disinfectant wipes performed the best under the conditions tested.



Learn the fundamentals of
Infection control
 and emerging infectious
 disease issues

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Where to hear Dr. Molinari speak:

- Concord Seminars
Dec. 4, Las Vegas, NV
- Concord Seminars
Dec. 5, Tempe, AZ
- University of Pittsburgh
Dec. 12, Pittsburgh, PA



John Molinari, Ph.D

B.J.M. Laboratories Ltd.

www.bjmlabs.com

Description

Q-Temp is a non-eugenol, resin-based temporary cement indicated for cementation of provisional crowns and bridges. **Q-Temp** has a two-stage curing process: an initial gel phase in 90-120 seconds and a rigid, final set in four to five minutes. **Q-Temp** contains potassium nitrate and chlorhexidine and releases fluoride. The cement is a neutral shade with a light pink tint. **Q-Temp** comes in a 5 mL automix syringe with 10 mixing tips. **Q-Temp** was evaluated by 32 consultants in 457 uses. This temporary cement received an 85% clinical rating.

Product Features

Q-Temp is supplied in an automix syringe that is neat and easy to use. The cement has a creamy consistency that flows well and does not impede seating the provisional restoration. The neutral color of **Q-Temp** is useful with anterior restorations when avoiding shine-through of the cement is necessary for esthetics. Excess cement peels off cleanly during the gel stage; if allowed to fully set, the cement is very hard to clean off the margins. **Q-Temp** provides excellent retention, and provisionals can be difficult to remove. Upon removal, most of the cement adheres to the temporary, leaving little cement on the tooth. Observation of dark stain on the prepared tooth was noted by 25% of consultants.



Consultants' Comments

"Cement didn't wash out in the two weeks the temporary crowns or bridges were on."

"Extremely strong for cases that have minimal retention."

"Easy cement removal from margins following the gel set stage."

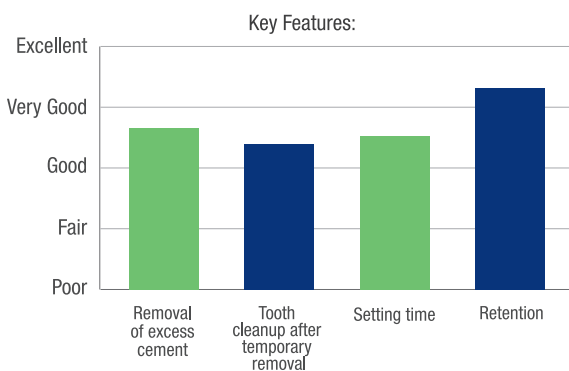
"Very little sensitivity."

"Strong retention."

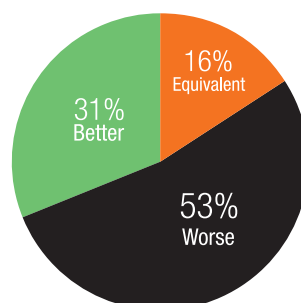
"Setting time could be faster."

Clinical Tips

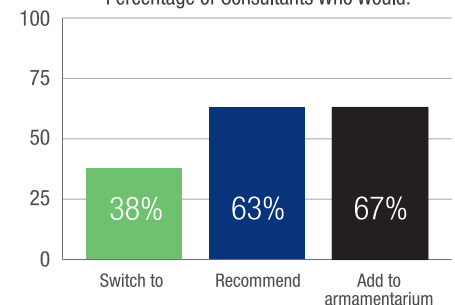
- Place a small amount of **Q-Temp** around the margin rather than filling the entire temporary crown.
- Store under refrigeration.



Compared to Competitive Products:



Percentage of Consultants Who Would:



Cem-Implant



B.J.M. Laboratories Ltd.
www.bjmlabs.com

Description

Cem-Implant is a non-eugenol, resin cement indicated for long-term cementation of permanent, implant-retained crowns and bridges as well as long-term provisional restorations. Cem-Implant offers secure retention, retrievability, radiopacity, and low solubility. Working Time is 45-60 seconds. The two-stage cure features an initial gel-phase in about two minutes for removal of excess cement and a rigid final set in four to five minutes. **Cem-Implant** comes in an esthetic, natural gingival shade. The kit contains two, 5 mL automix syringes of cement with 20 mixing tips. **Cem-Implant** was evaluated by 29 consultants in 344 uses. This implant cement received an 86% clinical rating.

Product Features

Cem-Implant is easy to apply in a small amount through the short, tapered mixing tips. The light pink, gingival shade has a neutral appearance in thin layers. The smooth consistency can be spread inside the crown, and it stays where placed and flows under pressure. If excess cement is removed before the final set, it peels away cleanly. After the five minute setting time, the cement is very rigid, and cleanup is more difficult. **Cem-Implant** is radiopaque for identification of subgingival cement. For cases in which future removal of the crown is anticipated, **Cem-Implant** provides retrievability.



Consultants' Comments

"Cem-Implant is an implant crown cement that ensures both seal and retrievability."

"Direct placement of cement into restorations makes the procedure quick and easy."

"Excess cement is easy to remove in one piece and not crumbly."

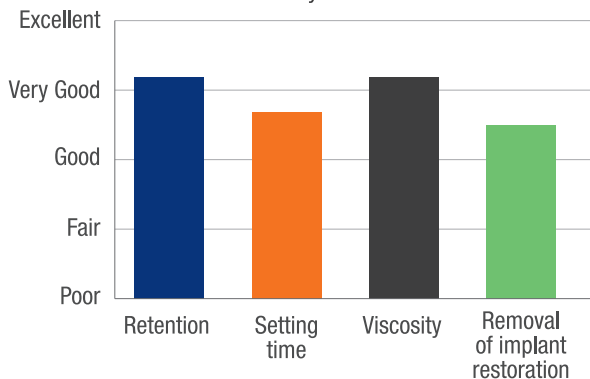
"Perfect consistency and amount of retention."

"Setting time is a bit long."

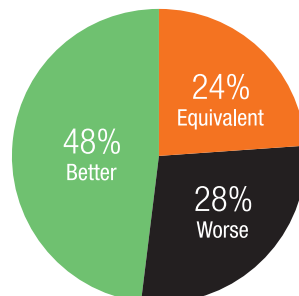
Clinical Tips

- Use a microbrush to apply a thin coat of cement inside of the implant crown.
- Avoid excess cement that can lead to difficulty retrieving the restoration, if necessary. Apply a thin layer of Cem-Implant to cervical 1/3 of the crown; for increased retention, apply to cervical 1/2.
- Remove as much excess cement as possible before it hardens.

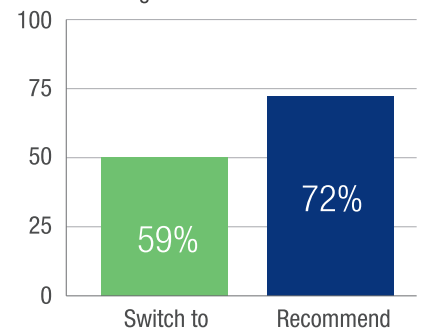
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



Cavex Bite & White ABC Masterkit



Cavex Holland BV

www.cavex.nl

Description

Cavex Bite & White ABC Masterkit is a professional take-home dental whitening system. The ABC components are designed to Activate, Brighten and Condition. Activation is achieved using StainLess, a gel designed to remove surface stains and plaque, allowing the whitening product to be in direct contact with the enamel surface. Stainless also raises the pH of the mouth to create a favorable environment for whitening. **Bite & White** 16% carbamide peroxide whitening gel provides the brightening. The addition of sodium fluoride reinforces enamel while potassium nitrate aids in minimizing any potential sensitivity. **Cavex Bite & White** only requires one-hour treatments to be effective. The kit also contains ExSense, a desensitizing conditioner containing a blend of hydroxyapatite and hydro-dispersing gel. The gel ensures accelerated dispersion to boost the hydroxyapatite penetration deep into the tubules and micro-cracks in the enamel. Each kit contains a 50 g tube of Stainless; three, 3 mL syringes of **Bite & White**; a 50 g tube of ExSense; a whitening tray case; shade guide; and instructions. **Cavex Bite & White ABC Masterkit** was evaluated by 23 consultants who dispensed it to 57 patients. This take-home whitening system received an 87% clinical rating.

Suggested Retail Cost

\$39.90

Product Features

Cavex Bite & White ABC Masterkit is a complete kit of products for patients to take home. Whitening tray material is not included, so offices can follow their normal procedures for tray fabrication. Patients were impressed with the complete kit, and instructions are printed inside the box top. The instruction sheet insert is written for professionals and is too complex for most patients. Effectiveness and sensitivity varied among patients. Eighty-seven percent of patients reported that **Cavex Bite & White** whitened their teeth. While 44% of patients experienced some sensitivity while bleaching, the majority (86%) rated it as mild. The incidence of gingival irritation was slightly higher. After using **Cavex Bite & White ABC Masterkit**, 67% of patients would continue using it for touch-up whitening.



Clinical Tips

- Avoid over-filling the tray with Bite & White, as it will irritate the soft tissue.
- Remove the Bite & White gel from the kit and refrigerate.

Consultants' Comments

"The ExSense really helped with sensitivity."

"Cavex Bite & White ABC Masterkit packaging is a professional presentation for patients."

"The pictorial instructions on the box are clear."

"The addition of the activator and conditioner makes the product unique among whiteners."

"The multiple steps may be too much for some patients."

Patients' Comments

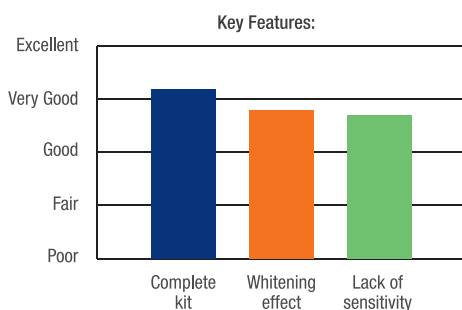
"This system has a complete cleaner, whitening gel and follow-up conditioner. Other systems do not have this setup."

"Easy to use and effective."

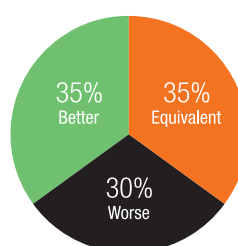
"The pictorial instructions on the box are clear."

"ExSense made a difference in sensitivity."

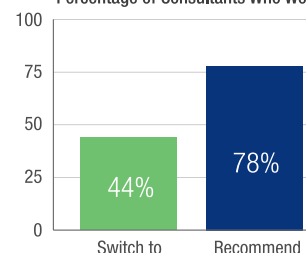
"It's a bit cumbersome to use all three products."



Compared to Competitive Products:



Percentage of Consultants Who Would:



Issa

+ + + 1/2

FOREO Ltd.

www.foreo.com

Description

The **ISSA™** oral-care device has a unique silicone design that creates immediate visual appeal as well as allows it to be ergonomic and user-friendly. It channels 11,000 high-intensity pulsations per minute to create micro-sweeps that break up and remove plaque to effectively clean the teeth and gums in a unique gentle way, unlike electric toothbrushes that utilize a rotary motion combined with nylon bristles that can result in trauma to gum tissue and damage to tooth enamel. The pulsations also deliver a comfortable gum massage that reach deep into the gum tissue, increasing circulation and supporting the growth and maintenance of its keratinized tissue.

The **ISSA™** is available with two brush head options:

Silicone Brush Head

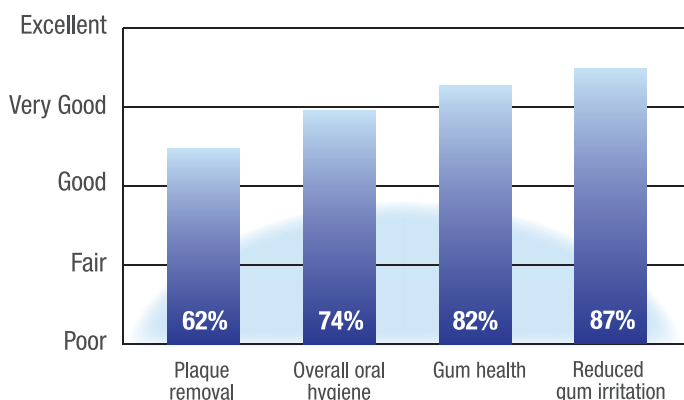
- Developed for gentle yet effective cleaning of teeth and gums.
- Suitable for people who prefer a softer cleaning experience, have highly sensitive gums or have a damaged, thin layer of enamel.
- Made completely from ultra-hygienic silicone material that resists bacteria buildup

Hybrid Brush Head

- Silicone + PBT polymer bristles, engineered for more vigorous cleaning of the teeth while remaining gentle on gums.
- Suitable for people who seek for stronger cleaning due to more plaque buildup.
- Outer silicone bristles cover gums to gently brush and massage them while inner PBT polymer bristles deliver stronger brushing of teeth.

The **ISSA™**, with its 2 brush head options, was distributed to 38 dental professionals to use during a 60-day period (30 days for the Silicone Brush Head and 30 days for the Hybrid Brush Head) and both were evaluated after. A clinical rating of 81% was given to the **ISSA™** overall.

Figure 1. Percentage of users who experienced positive results from the cleansing function.



Consultants' Comments

"I love how gentle it is on my gum tissue."

"The brush was better than I had expected. I loved how gentle it was on my gum tissue and its ability to remove plaque effectively."

"For patients who are aggressive brushers, ISSA will do great job of cleaning without being abrasive."

"Does not cause excessive foaming of the toothpaste like other power brushes."

"Silicone I loved! Massaged well, and felt clean."

Product Features

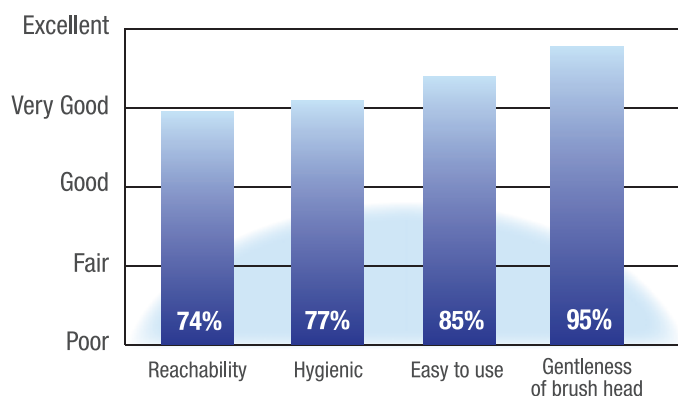
The **ISSA™** modern design is aesthetically pleasing, ergonomic and optimizes convenience. The device is lightweight and comfortable to hold, promoting the proper grip required to properly brush the teeth. Its brush head is flexible to reach the entire mouth and wide so the teeth and gums are cleaned in one stroke. The durable design allows the brush heads to last for 6 to 12 month, depending on the model. A built-in timer pulses every 30 seconds and pulses three times in succession after 2 minutes to signify the end of the brushing routine. The **ISSA™** is also travel-friendly as it requires no charging dock and each full charge lasts for 365 uses.

After the test period, the following positive evaluation was given (*Figures 1 and 2*).

Participants agreed that the **ISSA™** has the potential to minimize abrasion and improve gingival health, which is a benefit to patients whose teeth or gingiva need special care. The gingival massage that can increase circulation feels good on the tissue, and the intensity may be set to the user's preference. About one third of the consultants would recommend the **ISSA™** for specific dental issues, and an additional one third would add it to their patients' regimens.

In conclusion, the **ISSA™** device was given a generally positive evaluation. The testers liked both the Silicone and Hybrid Brush Heads and the features of the device. Almost half of the testers would recommend the **ISSA™** and agree that it would be perfect for those with extra-sensitive teeth or people undergoing dental procedures.

Figure 2. Percentage of users who experienced positive results from the features of **ISSA™**.



Adhese Universal VivaPen



Ivoclar Vivadent, Inc.

www.ivoclarvivadent.com

Description

Adhese® Universal is a single-component, light-cured adhesive for direct and indirect bonding procedures. It is compatible with self-etch, selective-enamel-etch, and etch and rinse techniques. The *VivaPen* applicator has an internal locking mechanism and disposable angled brush cannula to keep material fresh and minimize waste.

Each pen contains 2ml of liquid for up to 190 single-tooth applications. The brush tip is saturated with two to three clicks of the button on the pen, a single coat (applicable with any etching technique) is applied and agitated for 20 seconds, then dispersed with air, and light cured for 10 seconds.



*The product received a
**99% clinical
performance rating
at the 1-year recall.***

Clinical Evaluation Protocol

Adhese Universal was used to place a total of 83 direct and indirect restorations. At one year, 73 of these restorations (one zirconia crown, five IPS e.max veneers and 67 universal composite restorations) were available for recall (Figures 1 and 2). Restorations bonded with **Adhese Universal** were evaluated in the following categories: lack of postoperative sensitivity, resistance to marginal discoloration and retention. The restorations were evaluated on a 1-5 rating scale: 1=poor, 2=fair, 3=good, 4=very good, 5=excellent (Figure 2).

Fig. 1: Distributions of restorations bonded with **Adhese Universal** in anterior and posterior teeth recalled at one year.

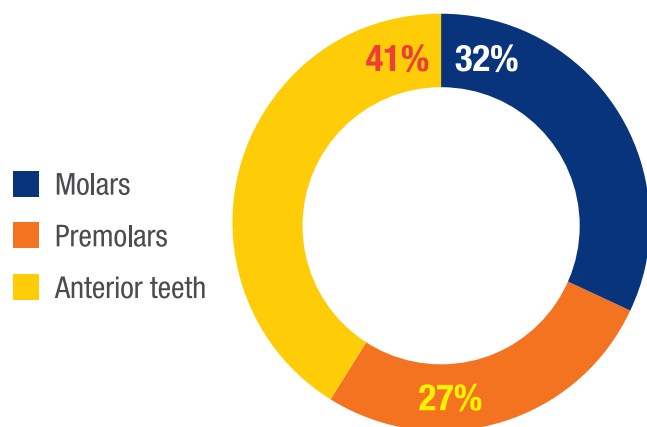
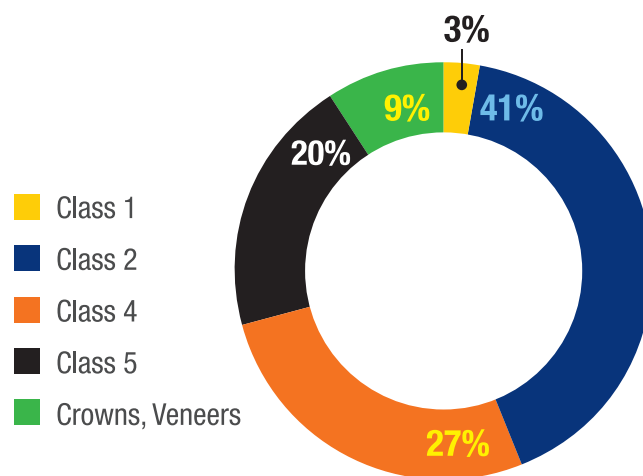


Fig. 2: Distributions of restorations bonded with **Adhese Universal** recalled at one year.



Consultants' Comments

- *"I love the VivaPen dispensing system – very convenient and minimal waste."*
- *"I like having one bonding system that allows both self-etch and total-etch techniques."*
- *"I have always had success with Ivoclar Vivadent bonding systems – I was not disappointed with Adhese™ Universal."*

Clinical Observations

Lack of Postoperative Sensitivity

No sensitivity was reported by patients in any of the retained restorations placed with **Adhese Universal** (Figure 3).

Resistance to Marginal Discoloration

Ninety-five percent of the restorations showed no signs of marginal staining (Figure 3). Three anterior composite restorations exhibited slight marginal staining.

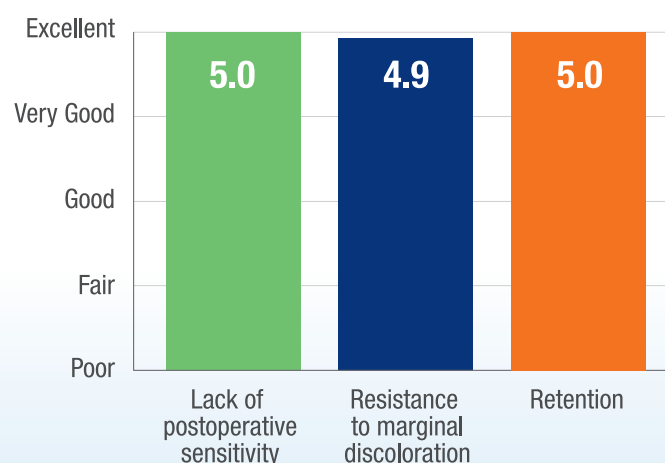
Retention

Ninety-nine percent of the restorations were retained after one year in service (Figure 3). One large anterior composite restoration debonded and was replaced.

Summary

Eighty-three direct and indirect restorations were placed using **Adhese Universal** bonding system. Seventy-three of these restorations were available for recall after one year. All restorations received excellent ratings for lack of postoperative sensitivity, resistance to marginal discoloration and retention. One anterior composite restoration debonded. **Adhese Universal** received a clinical performance rating of 99% at one year.

Fig. 3: Results of **Adhese Universal** at one year.



Adhese Universal performed exceptionally well in all categories.

THE DENTAL
ADVISOR

See more "Ask the Editors" questions online at www.dentaladvisor.com

Ask the editors:

What are the best in-office whitening options available?

Answer: THE DENTAL ADVISOR has evaluated many in-office whitening products. For example, **poloffice** is 35% hydrogen peroxide and **poloffice+** is 37.5% hydrogen peroxide. For a side by side comparison of these products and several other in-office whitening products, please see our product comparison tables at: <http://www.dentaladvisor.com/clinical-evaluations/product-table-detail.shtml?t=57>. These tables contain information about active ingredients and concentration, light requirements (or not), soft tissue isolation requirements and if that is included in the kit, if take home trays are required and if they are included in the kit, delivery system, time for procedure, cost, and rating. **poloffice+** scored higher than **poloffice** by our evaluators and editors. Other products that scored well were **BEYOND Polus Whitening System**, **BEYOND Power Whitening System**, and **Zoom2 Chairside Whitening System**.

Answered by: Brent Kolb, DDS

DiaShine Intra Oral Diamond Polishing Compound



VH Technologies Ltd.
www.diashinepolish.com

Description

DiaShine Intra Oral Diamond Polishing Compound is a fine grit, 100% diamond polish for chairside use. It is indicated for use on composite, ceramic, zirconia, metal, and acrylic. It should be used after finishing or adjustment to establish a high gloss surface. **DiaShine Intra Oral Diamond Polishing Compound** is water soluble, and only a minimal amount is necessary for a smooth and esthetic finish. Dispense a small amount from the 2 g syringe onto a rubber cup or bristle brush and use at a maximum speed of 10,000 rpm. **DiaShine Intra Oral Diamond Polishing Compound** was evaluated by 24 consultants in 463 uses. This polishing paste received an 88% clinical rating.

Suggested Retail Cost \$39.95 / 2g syringe

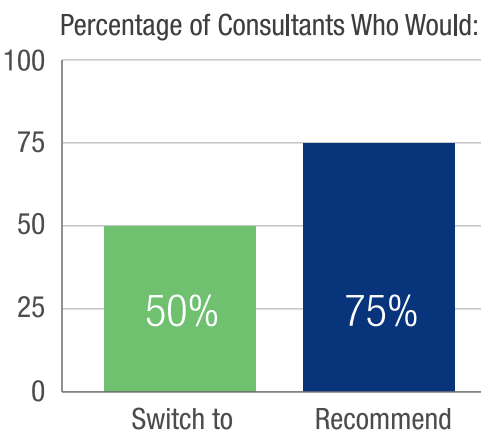
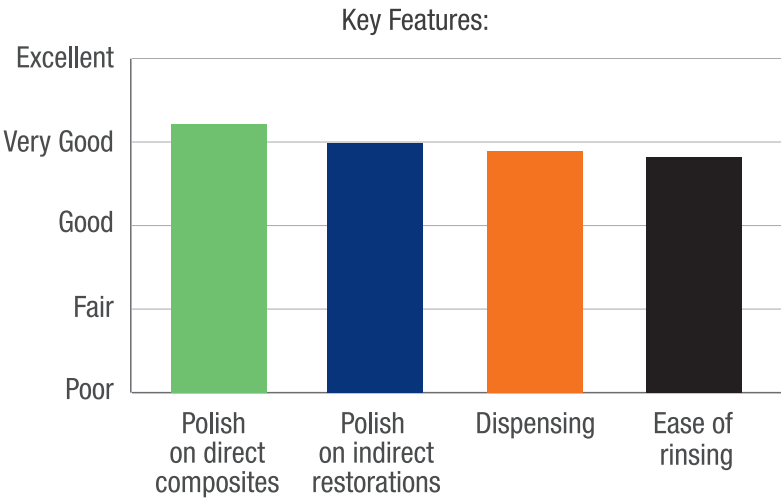
Consultants' Comments
"Great final step to add luster to restorations."
"Restores a glaze-like polish to ceramic."
"Syringe minimizes cross contamination."
"Versatile - can be used on virtually any restorative material."
"Unit dose blister packs would be even more convenient."
"A twist-style syringe would allow more controlled dispensing."

Product Features

DiaShine Intra Oral Diamond Polishing Compound is a creamy paste that spreads smoothly to polish all surfaces, including occlusal grooves and cervical embrasures. It is especially effective when used with a bristle brush. DiaShine has a line of well-known laboratory polishes available in pots that are appropriate for use outside the mouth. The syringe delivery of **DiaShine Intra Oral Diamond Polishing Compound** improves infection control, and just a small dab is sufficient to polish a quadrant of restorations. It is a versatile product that can be used on any restorative material. **DiaShine Intra Oral Diamond Polishing Compound** creates a high gloss polish on smoothly finished restorations.

Clinical Tips

- Complete finishing and smoothing of surfaces before using **DiaShine Intra Oral Diamond Polishing Compound** for the final polish.
- Use a minimal amount of polish. Dispensing ¼" of polish is enough for an entire arch.
- Keep syringe tightly capped to avoid dehydration of the paste.



Bioclear Anterior Matrix

Dr. David Clark LLC

www.bioclearmatrix.com

++++ 1/2



Description

The **Bioclear Anterior Matrix System** is a set of clear forms for use in placing anterior interproximal composite restorations. The system consists of anatomically shaped matrices that create a natural emergence profile while minimizing cervical flash. The Mylar is flexible and is 50 microns thick. **Bioclear Anterior** includes two shapes (incisor and diastema closure) each in three sizes. The anatomical shape of the matrices allow composite to be injected into the embrasure without resulting in an overhanging margin. **Bioclear Anterior Matrix** is indicated for Class III restorations, diastema closure, and black triangle correction. The system contains 60 assorted matrices, wedges, ContacEZ contact saws and sanders, and a composite polisher. **Bioclear Anterior Matrix** was evaluated by 28 consultants in 244 uses. This anterior matrix system received a 91% clinical rating.

Product Features

Bioclear Anterior Matrix is provided in an organized kit that keeps the different components separated for easy selection. The matrix material is thin and produces good interproximal contacts without leaving any open space. The anatomical contour leads to excellent cervical adaptation, sealing out potential moisture during composite placement and preventing overhangs at the margins. An incisal tab on each matrix identifies proper orientation. Use of **Bioclear Anterior Matrix** facilitates cases of anterior bonding and achieving a straight midline and even embrasures. **Bioclear Anterior Matrix** is especially useful in closing gingival embrasures (black triangles). The close adaptation of the matrix allows placement of composite that follows the natural contours of both the tooth and the gingiva without the need for excessive subgingival finishing and polishing.

Clinical Tip

- Watch the procedure videos online for a tutorial on the Bioclear Anterior Matrix system.
- Open tight contacts with ContacEZ before placing the matrix.
- Matrix may be trimmed with scissors to account for papilla height.
- Place **Bioclear Anterior Matrix** deeply into the sulcus for proper cervical adaptation.
- For large spaces, use the hourglass-shaped wedges included in the kit.



Consultants' Comments

"Superior to flat mylar strips."

"A great clinical solution for Class III composites and diastema closure."

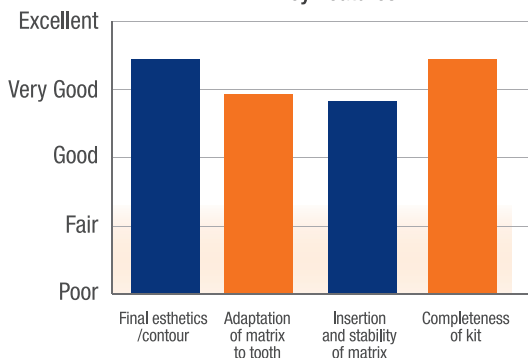
"An excellent matrix to close diastemas instead of free handing material."

"The Bioclear system enabled me to create contours with composite that I was not able to with traditional mylar strips."

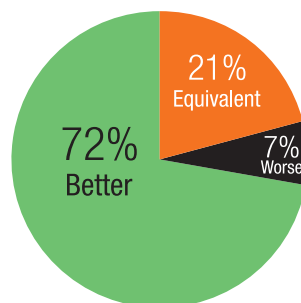
"Flexible matrices work better when using an injection technique rather than packing the composite in layers."

"Matrix maintains good isolation of the prepared surface."

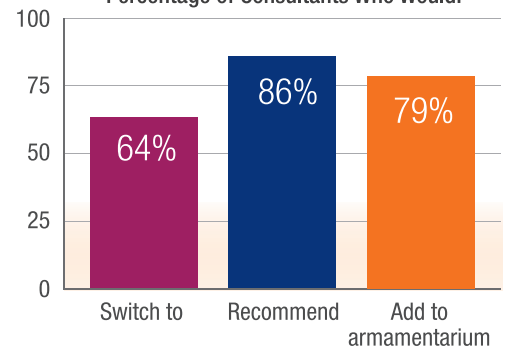
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



Provisa Cem SE



Benco

www.benco.com

Description

Provisa Cem SE is a self-adhesive resin cement indicated for the luting of indirect restorations and posts made from ceramic, metal, and composite. **Provisa Cem SE** and requires no bonding or etching agents, has a working time of 2:15, a set time of 3:30, and requires no refrigeration. **Provisa Cem SE** is designed to offer ideal viscosity, a homogenous mix, high adhesion to all substrates, ease of use, easy clean-up, and radiopaque properties. Provisa Cem SE is supplied in a 5 mL automix syringe with 15 mixing tips and is available in three colors: Transparent, Universal, and Opaque. **Provisa Cem SE** was used by 24 consultants during a three-month evaluation period. This self-adhesive resin cement received an 86% clinical rating.

Suggested Retail Cost

\$74.99

Product Features

Provisa Cem SE is designed to be placed directly into the restoration with the automix tip. It stays in place, being neither too runny nor too thick. The shades are adequate for the majority of clinical cases, and its compatibility with multiple materials makes it a versatile cement for daily use. The creamy viscosity allows complete seating of restorations with minimal pressure. Self-curing takes a bit

Consultants' Comments

"The translucent shade has the greatest clinical usefulness."

"Effective all-around cement."

"Excess cement is easy to remove in the gel stage."

"Good radiopacity."

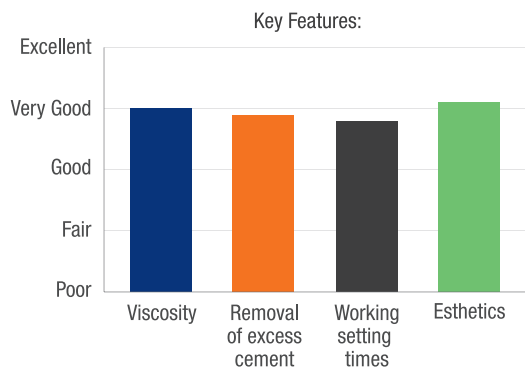
"Works just as well as other self-adhesive cements."

"Plunger fits loosely in the syringe for the first few uses."

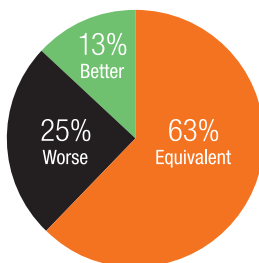
longer than desired, but utilizing a brief light exposure to activate the dual-cure feature allows removal of excess cement right away. The single step application of **Provisa Cem SE** makes it a simple cement to use.

Clinical Tip

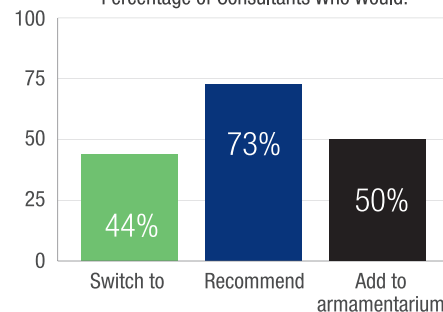
- Tack cure for two seconds on buccal and lingual surfaces for easy removal of excess cement.



Compared to Competitive Products:



Percentage of Consultants Who Would:



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Laboratory Consultants:

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