

THE DENTAL ADVISORTM

Improving Patient Care Through Research & Education



In-office and Take-home Whitening

Tooth whitening materials are a mainstay in dentistry and have become one of the most conservative treatment options to correct or improve the color of teeth. There are many ways to whiten teeth including bleaching pens, whitening toothpaste, and bleaching strips, but the two types supervised by a dentist are in-office and take-home whitening.

This issue of THE DENTAL ADVISOR describes in-office and take-home tooth whitening. Products that have been evaluated by THE DENTAL ADVISOR are listed and clinical tips are provided.

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RATINGS:

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Very Good + + + +
Good + + +

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



In today's society, white teeth are associated with youthfulness, attractiveness, and health. With that, it is no wonder that one of the most common questions I get from patients is about tooth whitening. I always explain our take-home and in-office procedures and address their questions about commercial products that can be found at a drugstore or mall kiosk. Instead of criticizing other whitening services, I educate my patients on the differences between carbamide peroxide and hydrogen peroxide. Once they understand the possible side effects from using a high

concentration peroxide without being supervised by a dentist and other useful information, I find they are more on board with getting their teeth whitened at our dental office.

In this month's issue, we focus on the differences between in-office and take-home whitening treatments and provide clinical tips for success. As always, I welcome your comments and suggestions; you can reach me at drbunek@dentaladvisor.com. Thanks for your continued support and reading!

Tooth Whitening Materials

Tooth discoloration is classified based on whether the stain is extrinsic or intrinsic. Extrinsic stains are easier to whiten; they are usually limited to the enamel and caused by tobacco products, food and beverages. Intrinsic stains form on the interior of teeth. They result from aging, trauma, exposure to tetracycline during tooth formation and/or excessive ingestion of fluoride. The effects of bleaching can last for several months to a year but it varies depending on the patient's at-home habits (coffee, smoking, wine, etc.), and the degree of staining. It is also important to note that restorations on teeth (resin composites and ceramics) are not affected by bleach and maintain their original color. Therefore, replacement of restorations may be necessary if located in the esthetic zone. It is best to whiten prior to restorative treatment so that composites, crowns, and veneers can be matched to the new shade.

Indications and Contraindications for Tooth Whitening

Indications

- Acquired superficial stains over time
- Age-related stains
- Patients who desire conservative treatment to improve appearance
- Color change related to pulpal trauma and necrosis
- Interproximal discolorations

Contraindications

- Pregnancy
- Patients under the age of 16 (larger pulp chamber can cause increased sensitivity)
- Hypertensive teeth
- Allergy to bleaching materials
- Severe discoloration
- Non-compliant patient (at-home bleaching)
- Patients with unrealistic expectations.

Composition and Mechanism of Whitening

Whitening occurs when peroxide in the bleaching agent converts into water and free oxygen ions. The oxygen ions break the bonds of the stained molecules into smaller, more soluble molecules. The active ingredients in whitening products include carbamide peroxide and hydrogen peroxide. Some products include a combination of both. Carbamide peroxide differs in composition from hydrogen peroxide. It is formed from the addition of urea and hydrogen peroxide.

Carbamide Peroxide

At-home bleaching is generally accomplished with carbamide peroxide, which breaks down into hydrogen peroxide. The concentration ranges anywhere from 10-35%. It is slow-acting and has about a third of the strength of hydrogen peroxide. A 10% solution of carbamide peroxide is approximately equivalent to 3% hydrogen peroxide. Patients can wear trays longer with carbamide peroxide because it stays active for 2 to 10 hours.

Hydrogen Peroxide

Hydrogen peroxide is fast-acting and is used primarily for in-office whitening treatments. The concentration ranges anywhere from 25%-40% hydrogen peroxide, producing faster whitening results in a shorter period of time. Hydrogen peroxide stays active for 30 to 60 minutes; therefore, if used with take home trays, the amount of time you can wear them is shortened to half an hour to one hour.

Dentist-Supervised Whitening Treatment Options

Take-home Whitening

Take-home whitening is a procedure that is supervised by the dentist but requires the patient to wear whitening trays every day for two weeks outside of the office. This option is less expensive and generally more popular than in-office whitening. The whitening trays are custom made at the dental office and given to the patient in addition to a low concentration of peroxide gel. The patient is instructed to place the gel in the tray and wear it every day for a duration of time, ranging anywhere from half an hour to overnight. Two weeks is generally enough time to whiten most discolored teeth, but the dentist may recommend the patient wear them longer if they have higher degree of stain. The effects of whitening can last anywhere from several months to several years, depending greatly on the habits of the patient. Custom whitening trays can be reused, allowing the patient the ability to “touch-up” their teeth when feel it is necessary. Some examples of take home whitening systems are **BEYOND StayWhite Professional Take-home Tray Whitening System** | BEYOND Dental & Health and **Cavex Bite & White** | Cavex Holland BV.

In-office Whitening

This procedure is done in-office under direct supervision of the dentist, and results can generally be seen within 30 minutes to an hour. A major benefit of in-office whitening is that a significant color change can be accomplished in a short amount of time due to the high concentration of hydrogen peroxide that is used (ranging from 25% - 40%). The cost is greater for this treatment because more chair-time is required. In-office whitening can be done with or without a special light or laser. It is important to note that although in-office whitening produces the most change in a short period of time it does not yield the same results as take-home whitening trays. Many patients require additional in-office whitening treatments or are instructed to use whitening trays at home. Examples of commercial in-office whitening systems are listed on page 5.

Advantages and Disadvantages of Take-home and In-office Whitening

Take-home	In-office
Advantages	Advantages
+ Less in-office time (lower cost) + Can use trays at home for future touch-ups + Can vary percentage and duration based on sensitivity + Technique is easy for patient to follow	+ Quick and noticeable color change in short period of time + Great marketing for practice + No patient compliance required
Disadvantages	Disadvantages
- Requires patient compliance - Potential sensitivity	- Higher cost - More chair time and technique sensitive - Some patients experience more sensitivity

Additional Take-home Products

Recently, many companies have introduced take home whitening products that are in unique delivery systems including, bleaching pens, whitening toothpaste, and bleaching strips.

Examples include:

- **TANDA Pearl**, Syneron Beauty
- **LumaCool Whitening Pen**, LumaLite, Inc.
- **BEYOND Pearl Whitening toothpaste**, BEYOND Dental & Health
- **Sheer White**, CAO GROUP, INC.

Procedure

Take-home Whitening

At-home whitening requires the patient to have custom trays made at the dental office. The well-fitting trays retain the whitening gel on the tooth and minimize contact between the gel and the patient's soft tissue. An alginate impression is taken of the upper and lower arches and the impression is poured up in stone. Clear, thin, custom trays (similar to clear orthodontic retainers) are fabricated from the stone model. The patient is given the trays in addition to a peroxide gel and is instructed to wear them every day for a certain period of time (depending on the concentration) for two weeks. It is important to record the patient's tooth shade prior to starting treatment. Photos can be taken as well at this time.

In-office

In-office whitening involves the direct application of a high percentage hydrogen peroxide to teeth, and in most cases, exposure to a light source. Prior to placing the whitening gel, it is critical to isolate the gums to reduce the risk of chemical burns. In-office whitening can be done with or without a special light or laser. The light is used to accelerate the whitening process. Some controversy exists regarding the effectiveness of the light.

A new concept in the use of light is to use LED lights to lessen heat output on the tissue and reduce sensitivity. THE DENTAL ADVISOR is currently evaluating SpaDent SD800 (SpaDent), which uses pre formed trays and an LED light to whiten. Results will be published in a future issue.

Side Effects

The two most common side effects from whitening are tooth sensitivity and gum irritation. Both are temporary and will disappear shortly after treatment is completed. Tooth sensitivity is generally related to the concentration of peroxide gel being used. As the percentage of peroxide increases, the incidence of sensitivity also increases. As a result, sensitivity is reported more often with in-office whitening treatments. To help reduce sensitivity, patients can wear their trays for a shorter period of time, brush their teeth with toothpaste made for sensitive teeth, and wear trays with fluoride prior to bleaching. Gum irritation is less common and can be a result of an ill-fitting whitening tray or excess bleaching material extruding out onto gingival tissue. It is important to inform the patient to wipe off the extra material after the tray is seated to prevent soft tissue irritation.

Technique for the Fabrication of Custom Whitening Trays

1. Take alginate impression, extending 3-4 mm beyond the free gingival margin
2. Trim model to provide very thin base.
3. Create a reservoir on the facial surfaces of teeth on model using a block-out resin.
4. Vacuum seal tray material over model.
5. Scallop tray to extend 1 mm beyond free gingival margin.
6. Flame edges of tray to intimately adapt to model.
7. Trim lingual of tray 6 mm from gingival margin of anterior teeth to provide greater seal.

Technique for In-Office Bleaching

1. Isolate with cheek retractors and provide gingival protection as directed by manufacturer's instructions.
2. Use pastes or gels of 35-45% hydrogen peroxide for the best results.
3. Place on teeth for 30-60 minutes or as directed by manufacturer's instructions.
4. Use light activation if required.
5. For best results, follow up with a take-home whitening kit.

BEYOND StayWhite Professional Take-home Tray Whitening System

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Beyond Dental & Health
(281) 277-4352
www.beyonddent.com



Product Description: *BEYOND StayWhite Professional Take-home Tray Whitening System* is a 6% hydrogen peroxide gel in transparent syringes with dosage marking. It is designed to whiten teeth in one hour per day for 14 days. Each zippered case contains a protective storage case for whitening trays and six 2.6 mL syringes of gel in mint, orange or vanilla flavor. *BEYOND StayWhite Professional Take-home Tray Whitening System* was evaluated by 39 patients in 326 uses. This product received an 88% clinical rating.



Example of in-office whitening system with use of a light.



Example of soft tissue isolation required for in-office whitening.

Whitening Products

Product	Company	Active Ingredient	Light	Trays Required	Tray Material Included	Estimated Treatment Time	Take-Home Kit Included	Rating
BEYOND II Complete with Tray Material	BEYOND Dental & Health	35% hydrogen peroxide + 6% hydrogen peroxide	BEYOND Polus	Yes	Yes	30 min	Yes	ce
 BEYOND Polus Whitening System	BEYOND Dental & Health	35% hydrogen peroxide	BEYOND Polus	No	No	30 min	No	98%
NUPRO WHITE GOLD In-Office Tooth Whitening	DENTSPLY International - Professional Division	36% hydrogen peroxide	None	No	No	45 min	No	88%
FAST & MILD In-Office Whitening System	Klox Technologies	29% hydrogen peroxide, when mixed	With any curing light	No	No	5 - 20 seconds per tooth	LifeSmile Teeth Whitening Pen	86%
Life-Like In-Office Whitening Kit	Life-Like Cosmetic Solutions	35% hydrogen peroxide	None			60 min	No	82%
LumaCool Whitening System	LumaLite, Inc.	35% hydrogen peroxide	LumaCool Light using 84 LED's	No	No	24 min	YES, LumaCool Whitening Pen	89%
ZOOM2 Whitening System	Phillips Oral Health, Inc.	20% or 25% hydrogen peroxide	ZOOM2 Lamp	No	Yes	45 min	Yes	99%
polaoffice+	SDI (North America) Inc.	37.5% hydrogen peroxide	Optional	No	No	8 min - repeat 3 to 4 times, if desired	No	91%
Spa Dent In-Office Whitening	Spa Dent	38% carbamide peroxide, 9% hydrogen peroxide	Spa Dent	Yes	Yes, preloaded	5 min	No	ce



TDA Recommends: Whitening

- **BEYOND Polus Whitening System**
(BEYOND Dental & Health)

BEYOND Polus Whitening System

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Beyond Dental & Health
(281) 277-4352
www.beyonddent.com



Product Description: *BEYOND Polus Whitening System* is an in-office whitening system designed to whiten teeth within three, 10-minute sessions. It includes a multi-functional, halogen-powered whitening lamp; LED curing light and spot whitening device; and optional low-level laser therapy treatment device. It is indicated for dual-arch and single-tooth whitening. The in-office gel contains 35% hydrogen peroxide. The touch-up gel contains 6% hydrogen peroxide. *BEYOND Polus Whitening System* was evaluated by two dental offices in 40 patients. This whitening system received a 98% clinical rating.

Clinical Tips: Teeth Whitening

Tips for Patients

- Best time to bleach is after a prophylactic cleaning.
- Consumption of any food or beverage that would stain a white shirt should be avoided for 48 hours after in-office treatment; the open tubules will absorb stain and decrease the whitening effect. For take-home whitening, do not consume dark food or liquids throughout the duration of the whitening period.
- Expect the peak effect to occur one to three days after treatment.
- Expect rebound to occur after treatment due to rehydration of the teeth.

Tips for Assistants

- Tetracycline stain is best treated with a combination of take-home and in-office whitening treatments.
- *MI Paste Plus/GC America* is an effective desensitizer before and after whitening.
- *OptraGate/Ivoclar Vivadent* is effective for isolation during in-office whitening.



Tetric EvoCeram

Ivoclar Vivadent, Inc
(800) 533-6825, (716) 691-0010 | www.ivoclarvivadent.com

5-year Clinical Performance

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Description

Tetric EvoCeram is a universal, nano-hybrid composite indicated for anterior and posterior restorations. Twenty-two radiopaque shades are available: B1, A1, A2, A3, A3.5, A4, B2, B3, C1, C2, C3, D2, D3 (enamel); A3.5, A4, B2 and A2 (dentin); T (transparent incisal); XL, L, I, M (bleach). This light-cured composite consists of particles ranging in size from 40 to 3,000 nm with an average particle size of 550 nm. It is packaged in 0.2 g, color-coded, unit-dose capsules and 3 g, color-coded syringes.

Clinical Evaluation Protocol

- Over 800 **Tetric EvoCeram** restorations were placed and monitored over a five-year period.
- Six hundred fifteen of these restorations were evaluated at patient recall. The restorations represented one to four surface composites of which 96% were posterior and 4% were anterior restorations.
- Sixty-three percent of the restorations evaluated were bonded with AdheSE, a 6th-generation bonding agent, while the rest were bonded with a variety of other bonding agents.
- At recall the following categories were assessed on a scale of 1-5
- (1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent).

Consultants' Comments
"Material handles and sculpts well."
"Great chameleon effect!"
"A good universal product for all-around use."
"Retains esthetics and polish well over time."
"Nice, distinct radiopacity."

Clinical Observations

Lack of Fracture/Chipping

Over 96% of the restorations evaluated received an excellent rating (Figure 1). Twenty-three (3.7%) of the 615 restorations evaluated had chipped or fractured at recall. Ten (1.6 %) of the 23 restorations needed to be replaced because the fracture could not be repaired. **Tetric EvoCeram** proved to be very resistant to fracture and chipping at five years, especially since 96% of the restorations evaluated were posterior restorations.

Esthetics

The esthetics of **Tetric EvoCeram** was excellent at recall (Figure 1). Out of 615 restorations evaluated, 572 (93%) received a 5 (excellent) rating. Thirty-eight restorations (6.2%) received a 4 rating and only five (0.8%) restorations received a poor rating. These were all anterior restorations and belonged to one patient who was a smoker. All other restorations blended extremely well with the tooth. When any shade was layered with the translucent shade, the opalescence and translucency improved the esthetics even further. In cases where the tooth was not discolored and the preparation was shallow, using the translucent shade alone was sufficient to result in a restoration that was undetectable. An example of the radiopacity of **Tetric EvoCeram** is shown in (Figure 2).

Resistance to Marginal Discoloration

Nearly 95% of the restorations evaluated received an excellent rating (Figure 1). Thirty-two out of 615 restorations (5.2%) exhibited some marginal staining and received a rating of 4. Six restorations (1%) needed to be replaced due to staining and discoloration. The majority of these were anterior restorations. The staining at the margin was not related to any particular bonding agent.

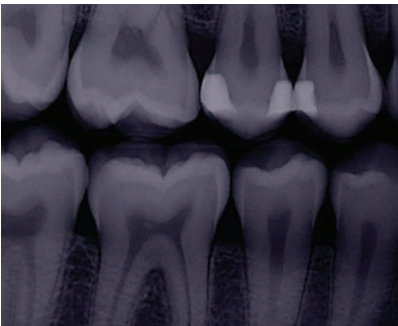
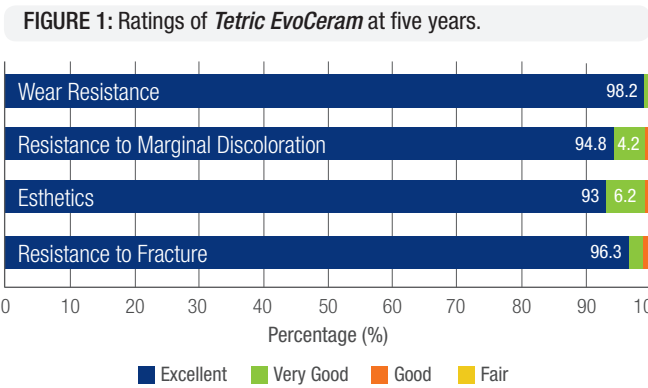


FIGURE 2: Radiograph of #4 and #5 showing the distinct radiopacity of **Tetric EvoCeram**.



Wear Resistance

Over 98% of the restorations evaluated received an excellent rating (Figure 1). Only eleven (1.8%) of the restorations exhibited some wear and received a rating of 3. Over 600 of the recalled restorations exhibited no visible wear.

Surface Finish

Not only did the restorations blend well with the surrounding tooth, but also the surface finish was excellent at recall. The restorations routinely had a glossy and smooth appearance.

Conclusions

Tetric EvoCeram is a composite with excellent handling characteristics. It is packable, not sticky, contours well, and is easy to finish and polish with excellent results. The results of the five-year evaluation of 615 restorations demonstrated that the composite had superior performance in all areas, including lack of fracture and chipping, esthetics, lack of microleakage, and surface finish. **Tetric EvoCeram** received a 97% clinical rating at the five-year recall. ■

Scotchbond Universal Adhesive

3M ESPE

(800) 634-2249 | www.3mespe.com

Description

Scotchbond Universal Adhesive is a single-component, light-curing adhesive that can be used in self-etch or total-etch procedures. It also contains MDP and silane, which allows it to prime metal, silica-based ceramic and zirconia restorations. Addition of the optional dual-cure activator allows it to be used with dual- or self-cured composite materials and cements. **Scotchbond Universal Adhesive** is ethanol- and water-based and bonds to moist or dry tooth surfaces. **Scotchbond Universal Adhesive** is indicated for use in all direct and indirect bonding procedures, including composite fillings; core build-ups; and cementation of crowns, bridges, inlays, onlays, and veneers. The clinical procedure involves scrubbing the liquid into the tooth surface for 20 seconds, air-drying for five seconds, and light curing for 10 seconds. **Scotchbond Universal Adhesive** is available in 5 mL bottles and unit-doses. The intro kit evaluated contained one bottle of Scotchbond Universal Adhesive, a 3 mL syringe of etchant, brushes, mixing wells and instructions. **Scotchbond Universal Adhesive** was evaluated by 31 consultants in 1500 uses. This product received a 98% clinical rating.

Suggested Retail Cost

\$152.18/Intro Kit

Product Features

Scotchbond Universal Adhesive is an outstanding adhesive, offering more versatility than consultants have seen in other products. The ability to treat multiple substrates with one product simplifies procedures and reduces the inventory necessary in the office. Having one product for self-etch and total-etch applications was significant to many consultants. Being able to bond to moist or dry teeth reduces the technique sensitivity that exists with many adhesives. **Scotchbond Universal Adhesive** is viscous enough to coat the tooth without being runny and wets the tooth well. Dental assistants appreciated the one-handed operation of the flip cap and narrow dropper spout, but sealing of the cap to the bottle was not always secure. Fifty-eight percent of consultants reported that **Scotchbond Universal Adhesive** was better than their current adhesive, and 39% reported it was equivalent. Eighty-four percent would switch to **Scotchbond Universal Adhesive**, and 94% would recommend it.

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Consultants' Comments

"So many different uses in one bottle."

"No post-operative sensitivity."

"Now I can keep just one adhesive in the office for every procedure."

"Simplifies bonding procedures."

"No refrigeration required."

"Applicator brushes are large."

"Adhesive is heavily tinted - I would prefer a clear material."

Clinical Tips

- The use of the dual-cure activator is not necessary if using with *RelyX Ultimate Adhesive Resin Cement* as the activator is integrated into this cement.
- Store **Scotchbond Universal Adhesive** upright to prevent leakage. ■



Editors' Note

Since the clinical evaluation of **Scotchbond Universal Adhesive**, 3M ESPE has improved the seal between the cap and the bottle.

Defend Ultrasonic Enzymatic Tablets

Mydent International

(800) 275-0020 | www.defend.com

Description

Defend Ultrasonic Enzymatic Tablets dissolve to produce a single-enzyme ultrasonic cleaning solution. The protease enzymes are fast acting, biodegradable, non-chlorine containing, and non-corrosive. Two tablets per gallon of water create a neutral pH ultrasonic solution indicated for the removal of blood, bone, tissue, food particles, and other soils that may be resistant to chemical detergents. **Defend Ultrasonic Enzymatic Tablets** may also be used as an instrument pre-soak or as an evacuation system cleaner. Each box contains 40 individually wrapped tablets. **Defend Ultrasonic Enzymatic Tablets** was evaluated by 34 consultants in 821 uses. It received a 90% clinical rating.

Suggested Retail Cost

\$40.95/Box

Product Features

Defend Ultrasonic Enzymatic Tablets quickly dissolve in water and are very easy to use. Time to dissolve varied from one to four minutes. The fast-acting enzymes

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Consultants' Comments

"Pleasant scent."

"I like the biodegradable nature of this product."

"Instruments come out clean."

"Tablets are convenient."

"Takes a few minutes to dissolve completely."

effectively remove debris from dental instruments in the ultrasonic cleaner. Tablets are convenient to store and packets open easily. Twenty-seven percent of consultants found **Defend Ultrasonic Enzymatic Tablets** to be better than other ultrasonic solutions and 62% found them to be equivalent. Seventy-seven percent would switch to **Defend Ultrasonic Enzymatic Tablets** and 85% would recommend them. ■

Venus Temp 2

Heraeus
(800) 431-1785 | www.heraeusdentalusa.com

Description

Venus Temp 2 is intended for the fabrication of short- and long-term temporary crowns, bridges, inlays, onlays and veneers. The material is a self-cured, fluoride-releasing provisional restorative material comprised of multifunctional methacrylic esters. It is available in five shades (A1, A2, A3.5, B1, and Bleach) and is packaged in a 50 mL auto-mix cartridge. **Venus Temp 2** features a working time of 50 seconds and a setting time in the mouth of 1-2 minutes. Six minutes after application, the oxygen-inhibited layer can be removed with alcohol and the restoration may be trimmed and polished. Each refill package contains one cartridge of **Venus Temp 2** and 12 mixing tips. **Venus Temp 2** was evaluated by 32 consultants in 665 uses. This product received a 90% clinical rating.

Suggested Retail Cost \$198.67/Refill Package

Product Features

Venus Temp 2 is a strong provisional material that trims nicely without chipping. Consultants used **Venus Temp 2** successfully for long-span bridges and other multi-unit cases. The esthetics is very good, and due to its nano-particle formula, the material can be polished to a high luster. Working and intraoral setting times rated highly; however, consultants would like to be able to trim the provisional earlier than six minutes. **Venus Temp 2** has a very low oxygen-inhibited layer that aids in handling and polishing. Ninety-one percent of consultants rated **Venus Temp 2** either equivalent or better than their current provisional material. Seventy-two percent would switch to **Venus Temp 2** and 84% would recommend it.

Clinical Tip

- Material sets hard - avoid use in undercuts. ■



Consultants' Comments
"Good shades, but a little opaque."
"Faint vanilla scent during trimming."
"Esthetics were excellent."
"Great product."

FAST&MILD In-Office Whitening System

Klox Technologies
(866) 653-5569 | www.kloxtechnologies.com

Description

FAST&MILD In-Office Whitening System is a patented in-office whitening system using the unique science of Biophotonics. The system is designed to be used with any visible light spectrum device (i.e. dental curing light). The whitening gel is prepared by combining the **FAST&MILD** orange-pigmented photoactive booster powder with the **FAST&MILD** 39% hydrogen peroxide. Once mixed, the peroxide concentration is reduced to 29%. When the gel is activated by the light source, the mixture to changes from bright orange to bubbly white in color. The color change indicates that the whitening gel has achieved full activation and the cycle is complete. Activation time ranges from 5 to 10 seconds per tooth, depending on the light intensity used. Minimally, an LED light with an intensity of 800 mW/cm² is recommended. Lights with 1400-1500 mW/cm² will produce optimal results. Each **FAST&MILD** kit contains materials to treat one patient. Kit contents include powder and peroxide components, application syringe, gingival barrier, cheek retractor, and a *LifeSmile Teeth Whitening* pen (15% carbamide peroxide gel) for maintenance. **FAST&MILD In-Office Whitening System** was used by 10 consultants to treat 44 patients. This in-office whitening system received an 86% clinical rating.

Suggested Retail Cost \$60.00/Single-patient kit



Futar® Fast Bite Registration Material

Kettenbach LP

(877) 532-2123, (714) 892-9820 | www.kettenbach.com

Description

Futar Fast is an elastomeric, addition silicone, bite registration material with a working time of 15 seconds and an intraoral setting time of 45 seconds. **Futar Fast** is dispensed from a standard automix gun. Due to the shorter working time, **Futar Fast** is indicated for “small application” myofunctional bite registrations and applications requiring a hard bite registration. This material can be trimmed with a scalpel or a bur. Excess **Futar Fast** material can be easily broken off allowing the correct occlusal position to be checked intraorally promoting precise alignment of upper and lower models. Each box contains two 50 mL cartridges with 12 mixing tips. **Futar Fast** was evaluated by 30 consultants in 514 uses. This bite registration material received a 96% clinical rating.

Suggested Retail Cost

\$47.35/Kit

Product Features

Futar Fast sets in a short time for a quick, accurate bite registration. The material is easy to extrude and is dispensed from a standard round mixing tip. The short time in the mouth reduces the chance of movement and is more comfortable for the patient. **Futar Fast** is stiff when set without being brittle, and it trims easily with a scalpel blade or rotary instrument. Laboratory consultants also found it trimmed nicely without breaking. Models could be set together accurately, as **Futar Fast** does not exhibit any “spring” or rebound. Fifty-seven percent of consultants found **Futar Fast** to be better than other bite registration materials they have used, and 37% found it to be equivalent. Seventy-seven percent of consultants would switch to **Futar Fast**, and 93% would recommend it.

Clinical Tip

- Dry the teeth before placement. ■

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Consultants' Comments

- “Easy to remove - does not lock into undercuts.”
- “Setting time is just right for most clinical applications.”
- “Stiff but not brittle.”
- “Good detail.”
- “Strong, even in paper-thin areas.”
- “Positive seat of casts results in accurate occlusion.”
- “Slippery on the teeth during placement.”

Product Features

The ability to perform in-office whitening using **FAST&MILD** with just a standard curing light is a great advantage for dental practices that do not have a specialized bleaching light. Mixing the powder and liquid produces a gel that is fairly viscous and grainy. Consultants experienced better results spreading the gel evenly on the teeth with a brush than with the syringe provided. The color changing gel is a good visual indicator of complete activation of the peroxide. After activation is complete, the gel is suctioned off of the teeth and the application can be repeated. The kit contains enough gel for six applications; 4-6 applications are recommended. Sixty percent of patients experienced no discomfort during their whitening procedures, while 22% reported mild tooth sensitivity and gingival irritation. Of patients who had previously undergone whitening procedures, 48% rated **FAST&MILD** better and 19% rated it equivalent. Fifty percent of consultants would switch to **FAST&MILD In-Office Whitening System** and 60% would recommend it to a colleague.

Clinical Tips

- Store at room temperature.
- Use a brush to spread the whitening gel on the teeth. ■



Editors' Note

This product is also known as Avalanche by Diversident in the U.S. and BlancOne by International Dental Supply in Italy.

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Consultants' Comments

- “No special bleaching light needed.”
- “Initial whitening results are very good.”
- “Instructions are very complete. I felt confident using this system.”
- “Color change is beneficial.”
- “Bleaching gel is thick - hard to achieve a uniform layer on the teeth.”
- “Light activation may take longer than indicated in the instructions.”
- “Cheek retractor does not hold back the tongue.”
- “Gingival barrier is thick and hard to extrude.”
- “Some curing lights overheat when used for full-mouth whitening.”

Patients' Comments

- “My teeth look whiter.”
- “Procedure is quick.”
- “Good results.”

Quick Up

VOCO
(888) 658-2584 | www.vocoamerica.com

Description

Quick Up is a pink-colored, self-cured Implant Pick Up composite for adhering attachment components into removable prostheses. It is commonly used to adhere ball, locator and telescopic anchors, as well as other anchors in partial and full dentures. The kit includes a 7.5 g automix syringe of **Quick Up**; 5 ml of **Quick Up Adhesive**; a 2 g syringe of **Quick Up LC**; a 5 g automix syringe of Fit Test C & B and accessories. The clinical procedure involves using Fit Test C & B for checking the accuracy of fit and blocking out undercuts in the mouth, applying **Quick Up Adhesive** onto the relieved portion of the denture, placing **Quick Up** into the denture, and seating the denture in the mouth. **Quick Up** has total working time of 3.5 minutes: extraoral working time of 30 seconds, 30 seconds for placement of the denture, and 2.5 minutes intraoral setting time. **Quick Up LC** is a pink, light-cured composite that can be used to fill voids or repair areas around the **Quick Up** material. **Quick Up** was used by 28 consultants in 242 uses. It received a 97% clinical rating.

Suggested Retail Cost \$171.00/Kit

Product Features

The **Quick Up** kit provides all of the materials necessary to adhere attachment components to an existing denture or other prosthesis. The instructions are thorough and are accompanied by pictures of each step in the process. Every item in the kit has a specific purpose, which is clearly explained. The blockout material in the kit is an important component to avoid locking the acrylic around implant bodies or in the gingival sulcus. The automix syringes are easy to use and contribute to a neat, clean procedure. Working time is adequate for placement of material; setting time was rated very good. The pink color blends well with most denture acrylics. Consultants who perform many of these procedures would like additional shades of material. Seventy-one percent of consultants rated **Quick Up** better than their current method of picking up attachments, and 29% rated it equivalent. Eighty-six percent of consultants would switch to **Quick Up**, and 96% would recommend it.

Clinical Tips

- When relieving the denture, leave about 2 mm of space for **Quick Up**.
- Do not overfill denture with **Quick Up**; **Quick Up LC** can be added later if there is a void. ■

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Consultants' Comments
"Very complete kit."
"Makes placing connectors much easier."
"Quick Up LC prevents locking acrylic around implant."
"Detailed instructions yielded great results."
"Color blends well with denture base."
"Fit Test comes with tiny intraoral tips that allow precise placement."
"Adhesive has a strong odor."

VELscope Vx

LED Dental Inc.
(888) 541-4614 | www.velscope.com

Description

VELscope Vx is a hand-held device for use in conjunction with conventional intraoral and extraoral head and neck examinations. **VELscope Vx** provides clinicians with an adjunctive oral mucosal examination system that aids in the detection of a wide variety of oral conditions including cancerous and pre-cancerous lesions. The blue light emitted by **VELscope Vx** results in the fluorescence of oral tissues. The visualization of this fluorescence, including enhanced contrast between normal and abnormal tissue, is made possible through VELscope's proprietary filters. **VELscope Vx** may facilitate the discovery of oral mucosal abnormalities before they are visible under ordinary white light, which could lead to early diagnosis and treatment of oral disease. **VELscope Vx** may also be used by surgeons to help identify the appropriate margin for surgical excision. Photo-documentation can be accomplished by attaching a digital camera to **VELscope Vx**. The system includes the **VELscope Vx** handpiece with battery, charging cradle, power supply, power cord, 16 disposable **VELcaps** and a package of disposable plastic sheaths, patient safety glasses, 100 patient brochures, Quick Reference & Step by Step Examination Guides, and a training DVD. A **Vx digital camera system (Canon)** is separately available. **VELscope Vx** was used by 11 consultants in 200 uses. It received an 88% clinical rating.

Suggested Retail Cost	
VELscope Vx system	\$2749.99
VELscope Vx Camera System	\$499

Dentapreg® SFM

Dentapreg America, Inc.
(866) 697-5266 | www.dentapreg.com

Description

Dentapreg® SFM is a fiber-reinforced composite (FRC) strip pre-impregnated with light-curing resin. It is indicated for splinting of teeth in situations where no tooth preparation is necessary, including periodontal and post-traumatic stabilization and orthodontic retention. An entire line of **Dentapreg®** materials covers additional indications. **Dentapreg® SFM** strips consist of multi-directional braided fibers and are 2 mm wide and 5 cm long. Each strip is individually packaged to protect it from exposure to light. Clinical procedure involves using a total-etch bonding system on the teeth to be splinted; the strips must always be covered with at least one layer of a flowable composite. Each box includes eight strips, a Light Save Box and instructions. Shelf life is three years. **Dentapreg® SFM** was used by 27 consultants in 162 applications. It received a 93% clinical rating.

Suggested Retail Cost \$299.00/Box

Product Features

Dentapreg® SFM offers very good pliability that aids in placement and adaptation to the teeth. Having the strip pre-impregnated with resin eliminates a step chairside and makes the product convenient to use. The resin in the strip is sensitive to ambient light, allowing limited working time during placement. **Dentapreg® SFM** strips are long enough for most clinical situations, and it is easy to shorten with regular scissors. A slight tackiness of the resin helps hold it in place during adaptation. The narrow strip creates a splint that is not excessively bulky and blends well with the teeth. Seventy-eight percent of consultants found **Dentapreg® SFM** to be better than other fiber reinforcement materials they had used, and 19% found it to be equivalent. Eighty-nine percent of consultants would switch to **Dentapreg® SFM** and 96% would recommend it to a colleague.

Clinical Tips

- Completely cover the strip with composite to avoid exposing the fibers during finishing.
- Protect from ambient light to avoid premature curing and loss of pliability.
- Adapt strip to teeth with an instrument and tack cure in sections with a 2 mm curing tip.
- Use dental floss for adaptation interproximally. ■

Equipment Features

VELscope Vx has a simple design that is easy for dentists to incorporate into clinical use. The training DVD included with the system should be viewed by clinicians prior to use, as it does an effective job of reviewing instructions for use and interpretation of observations. With experience, consultants found that identifying abnormal areas of soft tissue became easier. Under **VELscope Vx** light, normal tissue fluoresces and appears green. Abnormal areas typically appear dark, and the user learns to discern characteristics that separate highly suspicious lesions from anatomical structures and vascular lesions. The **VELscope Vx** handpiece is cordless with a single button for operating the light. When viewing the mouth through **VELscope Vx**, objects may appear smaller (although, in fact, there is no demagnification); for dentists who are used to working with loupes, magnification through the filters would be helpful. When not in use, the light is stored on a cradle. The optional **Vx digital camera system** captures images, which can be printed for the patient's record or as a tool for surgeons. Most consultants who evaluated **VELscope Vx** had been using manual and unaided visual exam techniques. Sixty-four percent found **VELscope Vx** to be better than unaided exam techniques for evaluating intraoral lesions and 27% found it to be equivalent. Sixty-four percent of consultants would switch to **VELscope Vx**, and 73% would recommend it to a colleague.

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Consultants' Comments

- "This is an outstanding product that expands the clinician's tool kit."
- "Good instructions written and online."
- "Strip is easily manageable and bonds well."
- "Fibers do not fray when cut."
- "Narrow width is easy to handle and fits well in many situations."
- "Somewhat sticky when placing onto teeth."
- "Package is hard to open."
- "Print the name of the product on the individual packages."

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Consultants' Comments

- "Can enhance visualization of distinct lesions."
- "Camera is easy to attach."
- "Non-invasive for the patient."
- "Enhances the clinical exam."
- "Magnification through the lens would be an advantage."

Clinical Tip

- Dim the room lighting. ■

fiteBac SkinCare Germicidal Hand Softening Gel

fiteBac SkinCare, LLC

(855) 222-1640 | www.fitebac.com

Description

fiteBac SkinCare Germicidal Hand Softening Gel kills germs while strengthening the skin's ability to resist moisture contamination. The antimicrobial agent in **fiteBac** is Benzalkonium Chloride (0.1%). **fiteBac** is silicone-based and is alcohol-free, paraffin-free, fragrance-free, non-abrasive, and non-greasy. Its unique formulation applies quickly and easily while still allowing skin to breathe. **fiteBac** helps hands exposed to frequent glove use and hand washing combat dryness and remain silky-feeling. It is indicated for use by all individuals, including healthcare personnel, to reduce dryness and promote softness following normal hand-hygiene procedures.

fiteBac is designed for repeated use and allows for easier removal of dirt from hands by reducing the amount of scrubbing necessary. **fiteBac** is available in 1 ounce and 3 ounce containers and in germicidal and non-germicidal formulations. **fiteBac** was evaluated by 51 consultants in more than 1500 uses. This hand gel received a 96% clinical rating.

Suggested Retail Cost

\$6.95/1 oz tube; \$12.95/3 oz tube;
\$25.95/ 8 oz bottle with metered pump dispenser

Product Features

fiteBac is easy to incorporate into the daily routine of hand hygiene. Following thorough hand washing, a small amount of **fiteBac** is rubbed into the hands. The silicone-based gel spreads smoothly and leaves a silky coating on the skin. A small number of consultants described the feeling as oily or greasy (which may have been due to over-application), but no residue of the gel was detected on the skin surface. **fiteBac** is fragrance-free and only a small number of consultants noted a faint odor of the ingredients. The duration of hand softness varied among consultants, but most used it twice a day: first thing in the morning and after lunch. Ninety-four percent of consultants did not note any dryness or irritation after using **fiteBac**. Eighty three percent of consultants found **fiteBac** to be better or equivalent to other skin care products. Seventy-seven percent would switch to **fiteBac**, and 82% would recommend it.

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Consultants' Comments

"Soothing to dry skin."

"This is an incredible product. Softening takes place immediately and lasts through multiple hand washings."

"Hands feel soft like they have lotion on, but with no greasy residue."

"I will add this into my hand hygiene routine."

"Gloves go on smoothly after using **fiteBac**."

"Produce an optional scented version to mask the chemical odor."

Clinical Tips

- Only a small (pea-sized) amount is needed.
- This product is not a replacement for hand washing. ■



Editors' Note

fiteBac is available in an 8-ounce bottle with a metered pump dispenser.

PRODUCT UPDATE

ESTELITE FLOW QUICK High Flow + + + + 1/2

Tokuyama Dental America has released their flowable composite, **ESTELITE FLOW QUICK High Flow** in a new PLT (Pre-Loaded Tip) delivery system. **ESTELITE FLOW QUICK High Flow** is a low-viscosity, high-flow, light-cured, radiopaque resin composite. This flowable composite utilizes Tokuyama's 100% spherical filler technology for ideal handling and esthetic properties. It is indicated for direct anterior and posterior restorations (particularly for small/shallow/tunnel shaped cavities), as a cavity lining, for blocking out cavity undercuts before fabrication of indirect restorations, and for the repair of porcelain and composite. It is available in shades A1, A2, A3 and OPA2. **ESTELITE FLOW QUICK High Flow** is also available in a newly designed syringe with an internal gasket to prevent oozing of the material after use. The tips included with the material also have a narrower orifice to help control the flow of this low-viscosity composite. There are two available viscosities in the Tokuyama flowable composite line, **ESTELITE FLOW QUICK** and **ESTELITE FLOW QUICK High Flow**. All four shades of **ESTELITE FLOW QUICK High Flow** were evaluated by 17 Editors in over 400 uses. It received a 91% clinical rating.

Tokuyama Dental America
(877) 378-3548 | www.tokuyama-us.com



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