

THE DENTAL ADVISOR™

“Improving Patient Care Through Research & Education”



Photography by Annette Frederick

Magnification and Illumination in Dentistry

Significant advances in the use of magnification and illumination in recent years has allowed for improved diagnosis and higher quality treatment, as well as reduction in eye and back strain. With the use of dental loupes, microscopes, LED headlights, and LED overhead operatory lights, clinicians are able to provide the most precise dentistry possible.

This issue of THE DENTAL ADVISOR provides insight on features to look for when purchasing dental loupes and LED headlights, and discusses advantages of microscopes. The current trend of LED overhead operatory lights is also reviewed.

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An Editors' Choice award is given to products recognized by our editors as being a unique or significant product.

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Magnification and Illumination in Dentistry

Most dentists and specialists will agree that magnification and illumination are important adjuncts to providing high-quality dentistry. Dental loupes in conjunction with LED headlights, and surgical microscopes provide the clinician with an increased image size for improved visual acuity, while simultaneously improving posture. Excellent visualization is the outcome of high magnification combined with high-intensity lighting.

Benefits of Magnification & Illumination

- Increased precision and improved diagnostic capabilities
- Improve ergonomic posture
- Reduced eye, neck, and back fatigue
- Increased patient confidence
- Decrease in overall treatment time

I. Dental Loupes: Most popular type of magnification used

Design: Through the Lens Vs. Flip-Up

Currently, there are two loupe designs, "Through the Lens (TTL)" and "Flip-up." The differentiating factor is that the telescope on a TTL is fixed to the lens with a fixed declination angle, while the telescope on "Flip-up" loupes are attached on a hinge, allowing them to be flipped up when not in use. Both design types equally enhance visual acuity and help reduce fatigue by improving posture and comfort. The decision on design type should be based on your preferences as both types have their advantages and disadvantages.

	Advantages	Disadvantages
TTL	• Lighter in weight, more comfortable • Wider field of vision (telescope is closer to eye)	• If prescription changes, manufacturer needs to correct (more costly than if optician repairs) • Cannot adjust declination angle (angle when you are looking down) • Can only be used by clinician they are custom fit for • Cost more because custom made
Flip-up	• Can be flipped up when not in use • Can adjust interpupillary distance, focal point, and declination angle • Not operator specific, can be shared between multiple operators • Ability to change eyeglass prescription by optician	• Heavier in weight, bulkier • Can get knocked out of alignment • Higher chance of cross-contamination during procedure due to raising and lowering the telescope. • More parts to clean

Factors to Consider When Purchasing Loupes:

Magnification

The level of magnification used is based on personal preferences. There is a wide variety available ranging from 2.5x magnification all the way to 6.0x. Most general dentists commonly use 2.5x to 3.5x, while specialists use 3.5x or higher, and hygienists tend to



Feather Sight (Ultralight Optics)

find 2.0x-2.5x sufficient. It is important to note that there is no standard measurement for magnifying power; therefore, the actual magnification power reported may vary from manufacturer to manufacturer. Magnification affects the field of view, depth of view, and weight. As magnification increases, the field of view and depth of view decrease, and the weight increases.

Working Distance (WD)

WD is the distance measured between your eyes and the patient's mouth, when you are sitting in an ergonomic position. Working distance is proportionate to height; WD of a taller individual is longer than that of a shorter individual. It is important that this measurement is accurate, as choosing the wrong working distance can lead to poor posture, fatigue and back pain. Choose a company that has a large selection of working distances or offers custom measurement, as some only offer a limited selection. A sales representative can provide custom fitting.

Field of View (FOV)

FOV refers to how much of the object can be viewed at one time. The size of the FOV is related to the magnification; the lower the magnification, the larger the field of view. While most prefer a larger field of view, a larger field of view may not always be the desired. For example, an Endodontist may prefer to see only a small area.

Depth of Field (DOF)

The DOF is defined as the range of distance that is in focus, allowing you to move close and further away from the patient without losing focus. A large depth of field is beneficial as there is less need to move your neck, head or back. Generally, depth of field increases as the working distances increases.

Declination Angle (DA)

DA is the degree to which your eyes are looking down at the working field. The correct DA allows the clinicians head to stay in a neutral position. A declination angle that is too small or too large will cause the head/neck to tilt, resulting in unnecessary neck fatigue. Different manufacturers have different declination angles,

therefore, it is important to have a representative measure your DA to determine which model is best for you.

Resolution

High resolution loupes are desirable as they provide the clinician with the crispest image. The quality of the optical design and the use of precision lenses will affect the resolution of the loupe. It is important to note that the increase in resolution is reflected with an increase in price.

Clinical Tips for Dental Loupes

- Start using dental loupes at the low end of magnification- it will be easier to adjust to using them.
- Discuss infection control recommendations for different loupes.
- Loupes can come with many lens coatings, such as anti-glare, anti-fog, and scratch-resistance. Ask the manufacturer what coatings are available for specific models.
- Request a trial period to assess whether or not the loupe will meet your needs.
- Frame selection is key for comfort and effectiveness. It is important to find a size/shape that is comfortable yet large enough to allow for a low sitting telescope (better declination angle).
- Proper fitting and adjustment are essential in the success of dental loupes.

II. LED Dental Headlight

Clinicians are beginning to recognize that the quality of light in the working field is just as important as magnification. As the level of magnification is increased, the field of view becomes darker (available light is spread out). Headlights can counteract this problem by providing spot illumination that helps reduce shadows to the operating field. Further, this can help reduce eyestrain and the need to reposition the over-head light. Most portable headlights on the market use Light Emitting Diodes (LED) technology. Unlike conventional fiber optic lights that create light by heating the tiny wire inside the glass, LED's use semiconductor chips. Since LED's do not use heat to illuminate, the light source does not have to be replaced. LED Headlights also require much less power and therefore can be run on batteries which can be incorporated onto the headband or clip on battery pack. The ability to run on batteries allows LED Headlights to be portable, and the dentist does not need to be restricted by a fiber optic cable attached to a light source.

Advantages of LED Headlights

- More durable because there is no glass or filaments to break.
- Portability (battery operated).
- Better color temperature.
- Less heat generated and more energy efficient.

Magnification and Illumination in Dentistry

Factors to Consider When Purchasing A Headlight

Color temperature (deg. Kelvin): Describes the color of the light emitted by the LED. Pure white is the most desirable color, and is reflected in a color temperature between 5500-6500 degrees Kelvin. Lower temperatures will have a yellowish light while higher temperatures will produce more of a bluish light.

Light Output (foot candles): The “brightness” of the light source is measured in foot candles. Foot candles are dependent on the distance between the light and the object. To have an accurate measure of light output make sure the company states the foot candles at a given distance (i.e.- light measures x foot candles at x inches).

Weight: Attaching a headlight to your loupes or headband will add additional weight. It is important to choose a headlight that is light enough for the clinician's comfort.

Battery type: LED headlights are powered by rechargeable batteries that can be attached to a lab coat, belt, or carried in a shirt pocket.

Battery Life: Batteries need replacement once the running time decreases to an unacceptable level. Most rechargeable batteries have a life expectancy of 1-2 years.

Composite sensitive filter: Many headlights have a built-in orange filter to prevent light from polymerizing composite resin materials.

LED operating life: Most LED's have a lifespan of ~ 50,000 hours of use.

Type of Mounting: Headlights have mounts (custom or universal) that can be attached to dental loupes or headbands. Most general practitioners prefer mounting to loupes because they find it more convenient, and not as bulky or heavy as mounting the headbands. The advantage of headbands is that the weight is evenly distributed around the head.

III. Microscope

Dental microscopes have increased in popularity in recent years. Where once microscopes were primarily used for endodontics, more and more clinicians are now finding use for the microscope in other fields of dentistry, especially restorative dentistry. With the increased magnification and illumination provided by a microscope, dentists and specialists are finding the microscope as an ultimate tool for examination, diagnosis, treatment, and patient education. Some manufacturers for dental microscopes include: *Carl Zeiss Meditec*, *Global Surgical Corporation*, and *Magnified Video Dentistry*.

Advantages of Microscopes

- Increased and varying levels of magnification available (ranging from 2x-24x).
- Light source is integrated through the lens, providing coaxial (line of sight), and unobstructed illumination.
- Increased patient acceptance and communication.

- Improved ergonomics and posture because clinician is sitting upright.
- Imaging benefits (may add an integrated video camera and a monitor to the scope).
- Increased documentation.

Disadvantages of Microscopes

- Long learning curve.
- Some clinicians feel procedure takes longer.
- Takes up space in operatory.
- Cost.

Clinical Tips for Microscopes

- The key to successful integration of a microscope into practice is in-depth training, repetition, and willingness to learn.
- Microscopes can be mounted onto ceiling, wall or chair-mounts.
- The use of specialized mirrors can greatly enhance the operator's visibility under magnification.

IV. LED Overhead Operatory Light

Proper illumination is needed for an efficient work environment. While Halogen based overhead operatory lights are still being sold, several dental manufacturers have embraced the new LED technology and introduced the following products: *Dental EZ (EverLight)*, *Pelton & Crane (Helios 3000 LED Operating Light)*, *PLANMECA (SingLED)*, and *Sirona Dental Systems LLC (LEDview - *not available in U.S)*



EverLight (Dental EZ)

Reasons to consider replacing existing, older overhead dental lights:

- Most of the new designs are more aseptic.
- Easier to position with a third axis movement.
- Have a non cure setting and will give the proper intensity and light color range required in dentistry.
- Provides a “brighter” light.
- Power consumption is greatly reduced.
- LED based lights use significantly less power .
- Ambient room temperature will increase less than 1 degree if the light is on for eight hours.

Pelton & Crane
800.659.6560
704.588.2126
www.pelton.net

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a sample or more information!



Description

Helios 3000 LED Operating Light is an LED dental light with multiple intensity options and automatic shut-off capabilities. **Helios 3000** is available in seven mounting variations: Track, Ceiling, Cabinet, Wall, Post, PMU, and Ellipse Mounted. The light provides advanced positioning capabilities and enhanced ergonomics for precise and efficient illumination of the oral cavity. It features patent-pending LED technology designed to deliver a precisely calibrated 7.6 x 15.2 cm light pattern. The light has long LED life expectancy, virtually no radiant heat, and dual Kelvin settings (5000 and 4200 K) for shade matching. The light has a mode to avoid premature curing of light-activated resin. **Helios 3000** was evaluated by 8 consultants in 2200 uses. It received a 97% rating.

Suggested Retail Cost

- Suggested Retail Price depends on mounting variations and ranges between \$3,895 for Ellipse System Mounted Light on Curved Post and \$4,395 for Track- or Wall-mounted Light

Equipment Features

Consultants unanimously agreed that **Helios 3000** is an attractive, modern-looking light that provides excellent illumination. The auto on/off feature is conveniently activated by raising or lowering the light. The rectangular light pattern sufficiently illuminates the oral cavity without getting in the patient's eyes. The unit contains a fan for cooling the diodes. The fan noise is minimal and received no negative comments from consultants. Several consultants



Consultants' Comments

- ◆ "Excellent illumination."
- ◆ "Helios 3000 has auto shutoff when you push the light up."
- ◆ "Light is heavy and sturdy."
- ◆ "The silver on the face of the reflective shield is hard to keep streak free."

reported that the silver reflector was difficult to clean without streaking. Seventy-five percent of consultants reported that **Helios 3000** was better than other dental lights and would switch to it and recommend it.

Clinical Tip

- Rectangular pattern of light is focused on the oral cavity. When the patient moves or rolls their head, the light must be moved. ■

Infection Control Corner – John A. Molinari, Ph.D.



INFECTION CONTROL CORNER
Questions on Infection Control, clinical
evaluations, and main topic articles

Q: Is it acceptable to soak a 2 x 2 gauze in a container with a disinfectant solution to use to clean a dental unit?

A: It is not recommended to prepare gauze wipes from a liquid spray disinfectant product. The gauze can change the concentration and antimicrobial efficacy of the components of the disinfectant. Use disinfectants as recommended by the manufacturers and approved by the EPA.

3M ESPE Filtek Supreme Ultra + + + + 1/2

3M ESPE
800.634.2249
www.3mespe.com

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a sample or more information!



Description

3M ESPE Filtek Supreme Ultra is an advanced formulation of *Filtek Supreme Plus*, offering fluorescence, additional body shades, improved handling of the translucent shades and easier polish. This universal composite is designed for use in anterior and posterior direct restorations. It may also be used for core build-ups; splinting; and indirect restorations including inlays, onlays and veneers. It is available in both syringe and single-dose capsules in a wide range of 7 dentin shades, 17 body shades, 8 enamel shades and 4 translucent shades. Each shade can be used individually or blended with other shades as needed. Each increment should be cured by exposing its entire surface to the light source. Syringes and capsule caps are color-coded by opacity. The Master's Kit evaluated includes 129 single-dose capsules, laminated instructions and shade wheel. **Filtek Supreme Ultra** was used by 23 consultants on 1141 restorations. It received a 92% clinical rating.

Suggested Retail Cost

- \$225.00/Master's Kit
- \$102.70/syringe refills
- \$108.20/capsule body refills
- \$54.10/capsule dentin, enamel and translucent refills

Product Features

The **Filtek Supreme Ultra** Master's Kit contains shades to satisfy virtually any clinical requirement. The three new body shades (A6, B5 and D3) were most useful for restoring cervical areas of teeth with a high amount of chroma. Consultants liked the handling, excellent color match and beautiful polish of **Filtek Supreme Ultra**. Some consultants observed the composite was sensitive to ambient light. Many dental assistants thought the organization



Consultants' Comments

- ◆ "Wide shade selection."
- ◆ "The enamel shades give good depth for most anterior multi-layer/shade restorations."
- ◆ "Composite stays where placed and is easy to sculpt."
- ◆ "Good color match and very nice surface finish."
- ◆ "Color wheel is complex."
- ◆ "Sticky and harder to handle than 3M ESPE Filtek Supreme Plus."
- ◆ "Organize the shades in the kit."

of shades in the kit could be simplified. Fifty-six percent of consultants reported that **3M ESPE Filtek Supreme Ultra** was better than their current multi-shade composite and 30% reported it was equivalent. Seventy-four percent would switch to **3M ESPE Filtek Supreme Ultra** and 91% would recommend it. ■

CPR Cosmetic Polishing Restorative Sapphire Paste + + + ½

IC Care
877.477.5486
www.iccare.net

Description

CPR Cosmetic Polishing Restorative Sapphire Paste is an alumina polish especially formulated to renew composite and ceramic restorations by removing stain and scratches. It is also indicated for use on natural tooth surfaces for prophylaxis, after whitening, and as a final step after placements and adjustments to smooth and polish all cosmetic restorations. **CPR** is available in a mint flavor and is packaged in standard 2 g unit-dose cups, each containing enough paste for one procedure. This paste contains no pumice and no fluoride. Each reclosable plastic jar contains 100 individual cups and instructions. Twenty-seven consultants evaluated this product in 834 uses. **CPR** received an 83% clinical rating.

Suggested Retail Cost

- \$69.95/jar of 100 cups

Product Features

CPR is a smooth paste that is effective for polishing composite and ceramic restorations, and teeth. Mild surface stains can be removed, and patients reported that the resulting surfaces felt smooth. Consultants used a standard prophyl cup to apply **CPR**

Consultants' Comments

- ♦ "Patients liked the texture and taste."
- ♦ "A good specialty paste."

and noted that when used at high speed a significant amount of splatter occurred during use, because of its non-gritty consistency. According to the instructions, after polishing the patient should be given a mouthrinse to expectorate any residue, as the paste does not always rinse away completely with just the A/W syringe. Most consultants reported that the product was more useful on restorative materials than on teeth. Twenty-six percent of consultants reported that **CPR Cosmetic Polishing Restorative Sapphire Paste** was better than their current prophyl paste, whereas 22% reported it was the same. Thirty-three percent of consultants would switch to **CPR Cosmetic Polishing Restorative Sapphire Paste** and 56% would recommend it.

Clinical Tips

- Apply more pressure at first, then ease up and finish with light pressure to avoid splatter and maximize results.
- Polish for a longer time than a regular prophyl paste for best results on very dull cosmetic restorations or highly stained natural teeth.
- Use mouthwash to rinse. ■

Vella 5% Sodium Fluoride Varnish with Xylitol + + + ½

Preventech
704-849-2416 . 800-474-8681
www.preventech.com

Description

Vella 5% Sodium Fluoride Varnish with Xylitol is intended for application to enamel or dentin for the treatment of dental hypersensitivity and for use as a cavity varnish. Every milliliter of **Vella Varnish** contains 50 mg of sodium fluoride (22.6 mg fluoride ion). The formula features a thin layer for smoother application and dries to a natural tooth color. The brush provided has twice the number of bristles for faster application. Each package includes 35, 0.5-ml pre-measured individual packages; an instruction sheet; a tear pad with patient instructions; and MSDS. **Vella Varnish** was evaluated by 27 dental professionals in 426 uses. It received an 84% clinical rating.

Suggested Retail Cost

- \$65.99/box of 35 pre-sealed individual packages

Product Features

Vella Varnish packaging is easy to open and use, and the quality of the brush contributed to ease of application. The varnish goes on smoothly in areas where the teeth are dry. The color of the varnish

Consultants' Comments

- ♦ "It brushes on the teeth smoothly, thoroughly, and easily."
- ♦ "The thicker brush allows for a smoother finish. The varnish goes on as a yellow color so you can see where it has been placed but dries to a white color, which is more pleasing to the patients."
- ♦ "Color is too opaque after setting."
- ♦ "Improve the brush handle so that it bends sufficiently without breaking - especially important to access the buccal of maxillary second and third molars."

after setting is acceptable, but some consultants would have liked a varnish with more translucency. Twenty-two percent of consultants reported that **Vella Varnish** was better than their current fluoride varnish, whereas 59% believed it was the same. Fifty-six percent of consultants would switch to **Vella Varnish** and 77% would recommend it..

Clinical Tips

- Teeth must be dry before application.
- Place a thin layer to avoid a bulky feeling.
- Don't bend the brush handle severely. ■

Cranberry USA
888.811.6839 - 707.553.6190
www.cranberryusa.com

Description

Essensoy Deep Treatment Cream is a hand moisturizer described by the manufacturer as a blend of pure botanical extracts (chamomile, comfrey and aloe vera gel) and high concentrations of organic soy lipids which contains natural vitamin E, essential fatty acids and lecithin that does not affect glove integrity and has not been tested on animals. **Essensoy Deep Treatment Cream** is designed to penetrate quickly, repair collagen below the surface of the skin, help restore natural elasticity, and replenish the skin's moisture level. Because it is a deep treatment cream, only a tiny soybean-size drop is needed. Proper application of **Essensoy Deep Treatment Cream** leaves no greasy film, insuring tactile sensitivity and easy donning of exam gloves. **Essensoy Deep Treatment Cream** is formulated to treat intensive dry areas, is hypo-allergenic and non-comedogenic, and contains no mineral oils or alcohol, and is dye-free. It protects skin from dermatitis caused by frequent hand washings and other occupational exposure. **Essensoy** is also available in *Intensive Moisturizing Lotion* with *Yuzu Fruit* and *Herbal Mint* scent. **Essensoy Deep Treatment Cream** was evaluated by 31 consultants in over 2000 uses. It received a 97% rating.

Suggested Retail Cost

- \$15.90/ 8 oz. bottle with pump dispenser

Product Features

Consultants liked the convenience of the pump bottle and found it easy to control the amount of cream dispensed. By using a small amount of cream per use, as recommended by the

Consultants' Comments

- ♦ "I needed very little product. My hands felt smooth and I was able to put gloves on right after using Essensoy."
- ♦ "It lasted between hand washings."
- ♦ "My assistants loved this hand cream!"
- ♦ "It cures dryness better than most hand creams."
- ♦ "The smell is really strong."
- ♦ "I would like the pump to only dispense the small amount needed."

manufacturer, the bottle lasted a long time. Avoiding excessive cream also enhanced the ease of donning gloves. Of the consultants participating in the evaluation, 84% had dry, chapped skin, 26% had redness and 45% itchiness, at the beginning of the study. At the end of the evaluation period, 81% of consultants with the indicated skin problems stated that **Essensoy Deep Treatment Cream** solved their skin problems. Calluses were softened and dry cuticles were improved. While the cream does not carry a specific scent, many consultants noted an unpleasant odor. Eighty-seven percent of consultants reported that **Essensoy Deep Treatment Cream** improved the feel of their hands. Sixty-four percent of consultants reported that **Essensoy Deep Treatment Cream** was more effective than other hand creams and 32% reported it was equivalent to other products they had used. Eighty-four percent would switch to **Essensoy Deep Treatment Cream** and 94% would recommend it.

Clinical Tip

- Use as directed - only a pea-sized amount to avoid greasy feeling. ■

Septoject XL + + + + 1/2

Septodont
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Description

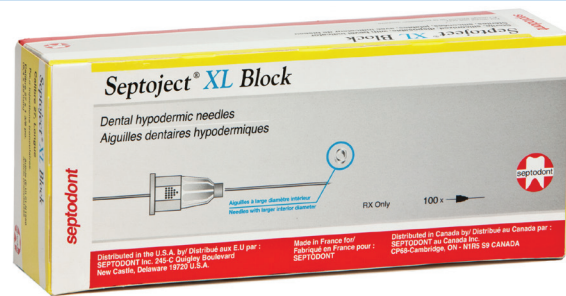
Septoject XL is a single-use, sterile dental needle made of high-grade, 27-gauge surgical stainless steel. **Septoject XL** needles feature an enlarged bore - 31% wider than that of a standard needle - with a triple-bevel, and a polished and siliconized canula for easy insertion into tissue. They are indicated for the routine administration of local dental anesthetics. They are available in *Block* (35 mm) and *Infiltration* (25 mm) versions eliminating the need to choose a size or gauge. The lot number and expiration date are imprinted on the paper seal around the cap; the seal is color-coded: orange for *Infiltration* and yellow for *Block*. They have pre-threaded plastic hubs designed to fit any standard dental syringe. The evaluation included one, 100-count box of 27 gauge, short, *Infiltration* needles, and one, 100-count box of 27 gauge, long, *Block* needles for each consultant. **Septoject XL** was evaluated by 30 consultants in 1867 uses. It received a 92% rating.

Suggested Retail Cost

- \$14.70 / box

Product Features

Consultants observed that the enlarged internal diameter of the needles reduced the pressure needed during injection. The bevel creates a very sharp needle, allowing smooth penetration into tissue. This feature resulted in patients being more comfortable during the injection. Plastic caps do not fit tightly on the hub, creating a concern about injury during removal of the needle from the syringe at the time of discard. Forty-seven percent of consultants reported that **Septoject XL** needles were better than



Consultants' Comments

- ◆ "Easier penetration into tissue."
- ◆ "Patients felt more comfortable with the injections."
- ◆ "The needle cap comes off too easily when removing it from the syringe."
- ◆ "Entire cap should be color coded to differentiate needle lengths."

other dental needles and 43% reported they were equivalent. Sixty percent would switch to **Septoject XL** and 77% would recommend them.

Clinical Tips

- Use the arrow printed on the hub to identify the direction of the bevel.
- Inject slowly - it is easy to use the same pressure you have been using with other needles and to inject too fast. ■

Optim 33TB + + + + 1/2

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Description

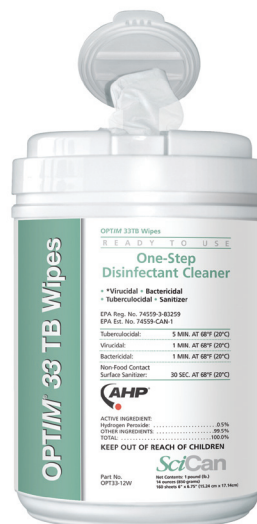
Optim 33TB is a ready-to-use, accelerated hydrogen peroxide (0.05%) one-step, multi-purpose, disinfectant cleaner designed for general cleaning and disinfection of hard, non-porous environmental dental surfaces, dental chairs and stools. It has a non-abrasive formula and virucidal, bactericidal, tuberculocidal and sanitizing properties. It is the only surface disinfectant product recommended for those offices that wish to go “green.” **Optim 33TB** has an almond scent, biodegrades in water, disinfects a broad spectrum of organisms, and has a short contact time of 1 minute. It is safe (EPA Toxicity Category 4 - no warnings required). **Optim 33TB** is available in 32 oz bottles, 1 gallon bottles and in wipes. Dry wipe refills in two sizes are also available for those customers who wish to reuse the pop-up wipe container rather than throwing each can away when empty. **Optim 33TB** was evaluated by 40 consultants in 2092 uses. It received a 92% rating.

Suggested Retail Cost

- \$12.95 / can of wipes through dental dealers
(\$155.40 / case of 12)
- \$110.00 / case of 4 Gallons

Product Features

Consultants reported that **Optim 33TB** was pleasant to use because it is non-irritating to eyes and skin. Because the product does not contain chlorine, it does not leave the familiar clean smell of bleach. The almond scent effectively masks the peroxide odor but received mixed reviews. When **Optim 33TB** is used on surfaces previously cleaned with other types of products, cloudiness or stickiness sometimes develops. Because **Optim 33TB** is an effective cleaner, it removes residue from previous surface disinfectants and that is the primary cause of stickiness. Pre-cleaning once with soap and water eliminates this effect. Sixty-four percent of consultants reported that **Optim 33TB** was better than or equivalent to other disinfectant cleaners. Fifty-two percent would switch to **Optim 33TB** and 72% would recommend it..



Consultants' Comments

- ◆ “*Optim 33TB sprays on evenly.*”
- ◆ “*The pre-moistened wipes are wetter than my previous brand.*”
- ◆ “*The product is non-irritating to eyes/skin – no warning labels needed.*”
- ◆ “*Unusual odor.*”

Clinical Tips

- Clean all surfaces with soap and water before using **Optim 33TB** to prevent adverse interaction with other disinfectant wipes and possible staining or clouding of surfaces.
- Do not use on aluminum, brass, or copper surfaces.. ■

GC America, Inc
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Description

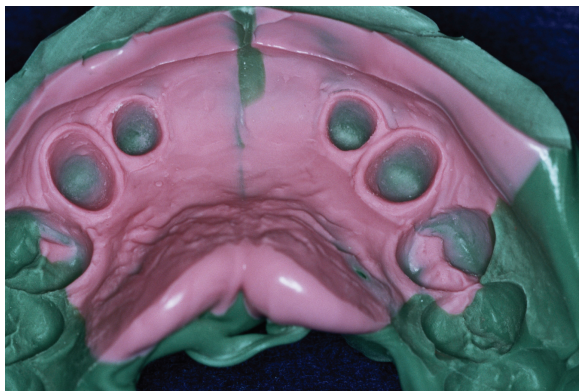
EXA'lence™ is a new generation of Vinyl PolyEther Silicone (VPES™) impression material formulated to combine the features of both VPS and polyether. It is recommended for impressions of veneers, inlays, onlays, crowns, bridges, partial dentures, and full dentures. Five viscosities (extra light, light, monophasic, heavy body, and heavy body rigid) are available in both regular and fast set. Working time range is 1 - 2 minutes for all viscosities; setting time is 5 minutes for regular set and 3.5 minutes for fast set. **EXA'lence** is available in 48-ml automix cartridges, 370-ml cartridges (for countertop mixers), and putty. Consultants evaluated heavy body, light body and extra light body, all in both fast set and regular set. **EXA'lence** was used by 18 consultants in 215 cases. It received an 88% clinical rating.

Suggested Retail Cost

- \$104.00/Intro Kit – 4, 48 mL cartridges
- \$104.00/Refill Kit – 4, 48 mL cartridges
- \$180.00/Intro Kit – 1, 370 mL cartridge with Tips and Locking Ring
- \$343.25 /Refill Kit – 2, 370 mL cartridges

Product Features

Consultants liked the quality of impressions with good penetration, well-defined margins and minimal tearing upon removal from the mouth. The heavy and light viscosities exhibited very good blending with minimal voids or bubbles. Some viscosity combinations (pink and green) had good color contrast, whereas others (yellow and green) were not as easy to read. The material does not have the strong, offensive taste of traditional polyether material, and patients' favorable perception of taste was highly rated. In the dental laboratory, the first pour was more predictable than the second. Seventeen percent of consultants reported that **EXA'lence** was better than their current impression material and 61% reported it was equivalent. Thirty-nine percent would switch to it and 72% would recommend it. ■



Consultants' Comments

- ◆ "I've had no tears, voids or difficulty with this material to date."
- ◆ "Margins were well defined with minimal tearing of marginal flash."
- ◆ "Scent is nice and patients liked the taste."
- ◆ "Setting time was too fast for multiple tooth impressions."
- ◆ "Improve color contrast – yellow and green were difficult to read."

Triodent Ltd.
800.811.3949
www.triodent.com

Description

Griptab is a product designed to aid in handling and placing indirect restorations. A small handle-like **Griptab** is bonded to the restoration with a light-cured, flexible adhesive that is designed to come off of the restoration cleanly and easily. Tabs are available in three sizes: Small for inlays and veneers; Medium for inlays, onlays, veneers and crowns; and Large for crowns. Either *Triodent Pin-Tweezers* or a small hemostat may be used to grip and maneuver the **Griptabs**. The adhesive light cures in 20-40 seconds and changes color from pink to gold when fully cured. Once cured, the adhesive is flexible, moisture- and Silane-proof and easy to remove at the end of the procedure. The restoration can be picked up and released multiple times. The **Griptab** introductory pack contains: 24 large **Griptabs**, 24 medium **Griptabs**, 12 small **Griptabs**, one syringe of **Griptab** adhesive, one Pin-Tweezers (cross-over action), and a laminated, illustrated instruction booklet. **Griptab** was used by 23 consultants in placing 273 indirect restorations. It received an 86% clinical rating.

Suggested Retail Cost

- Griptab Medium 60 Pack \$59.00
- Griptab Assorted 60 Pack \$59.00
- Griptab Intro Pack \$99.00

Product Features

Consultants found **Griptabs** the most useful for placing small inlays/onlays and veneers. It was effective with all restorative materials. The most challenging use was on short second molar

Consultants' Comments

- ◆ "Pliers are great and secure."
- ◆ "Ease of removal was excellent - yet firm hold."
- ◆ "It really does help placing onlays - definitely worth the extra effort."
- ◆ "During setup it was hard to hold the tab while light curing the adhesive on the restoration - almost a two-person job."
- ◆ "Took more time - tedious to use."
- ◆ "I would like Griptabs to come with adhesive already applied."

crowns. After seating was completed, **Griptab** was easy to remove from the restoration. Forty-four percent of consultants reported that **Griptab** was better than their current indirect restoration placement device and 30% reported it was equivalent. Fifty-two percent would switch to **Griptab** and 65% would recommend it.

Clinical Tips

- Use the smallest of the size possible to avoid occlusal interference.
- If placement of the tab is not in an ideal location, remove the adhesive and re-apply the tab.
- Dental floss may be threaded through the hole in the tab for extra security.
- After cementation, remove the tab by sliding a thin, flat instrument between the restoration and the adhesive on the tab.
- Place the restoration onto the putty provided and then release *Pin-Tweezers* before curing. **Griptab** will remain in place.
- To maximize chair-side efficiency, **Griptabs** should be attached by a staff member before patient arrives. ■

SPECIAL THANKS TO:

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