DENTAL ADVISOR™

Product insights you can trust.

NOV.-DEC. 2018
Vol. 35, No. 06

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FROM THE DESK OF
Dr. Sabiha Bunek, Editor-in-Chief

This month's issue focuses on patient-centric care. Patients often come to us with specific needs and concerns, especially when noted by our hygienists. Sometimes, patients are very aware of the conditions present, but are unable to remedy them on their own—they cannot reduce sensitivity despite several attempts, they can't seem to brush properly or effectively, they don't care for the shade of their teeth, or they have painful oral lesions which interfere with daily living. Dr. Fiona Collins, our clinical editor, focuses on several areas of concern often brought to our hygiene teams, and used her expertise to advise us on this issue. We all want happy patients who receive care specific to their needs.

As always, I welcome your comments and suggestions; you can reach me at drbunek@dentaladvisor.com. Thanks for your continued support and reading!

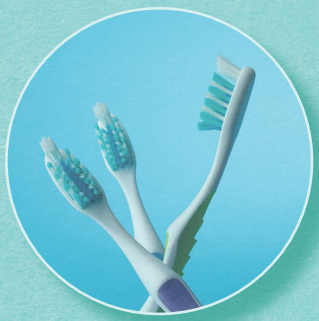
— *Sabiha S. Bunek*

Oral hygiene challenges

Challenges to oral hygiene and oral health include *compliance with the recommendations on how, when and for how long* patients should brush. In addition, patients with physical and cognitive problems sometimes have difficulty brushing effectively.

There are manual and power brushes available with unique features, including:

- Optimized bristle hardness and head configuration
- Handles that are adapted for patients who have difficulty using a traditional grip
- Timers as a reminder and real-time feedback during brushing



Digital Technology is now incorporated into power brushes and adjunct devices. *These include apps with real-time feedback on brushing designed to prompt patients to adjust their brushing, games to engage children and voice activation to guide proper brushing.*

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Patient-Centric Care

POWER TOOTHBRUSHES: Customization and Digital Technologies

A new array of powered toothbrushes have come on the market in recent years that have capitalized on advances in technology.

PRO-SYS® VarioSonic® Electric Toothbrush

(Benco Dental)

Feature: Customizable brush with 25 possible intensities

Five precision multi-level brush heads: ***Normal Soft*** for healthy gums; ***Extra Soft*** with shorter bristles and a gentle curvature; ***Hybrid Soft*** with two types of bristle fibers to reach deeper between teeth; ***Ultra Soft*** with longer, curved bristles and ***Feather Soft*** for sensitive teeth and gums

Brush head movement: optimized rotational velocity, dynamic motion and articulation

Five cleaning power levels with microprocessor-controlled movement: Mode 1 is the lowest, for sensitive teeth and gums; Mode 5 is the highest power level-brush heads: optimized rotational velocity, dynamic motion and articulation

Automatic timer: Guides the user in brushing each quadrant for optimal length of time

Battery-operated: Fully charged, lasts up to 1 month

Colgate Connect E1 Smart Toothbrush

(Colgate-Palmolive)

Brush heads: Small and rounded

Brush head movement: Sonic vibrating technology for efficient plaque removal

Handle: Lightweight and slim silhouette

Artificial intelligence: Built into the handle; sensors track brushing

Bluetooth technology: Automated data uploading to app from the brush

App: Mouth mapping and real-time feedback; displays brushing frequency, duration and surface coverage; 'coach' mechanisms show user how to brush specific areas and measures brushing time.

Games: Available in the app; educate and help the user on brushing and helps them 'win the game' by brushing better

Battery-operated: Fully charged, lasts up to 10 days

Oral-B GENIUS 8000

(Procter & Gamble)

Brush heads: Round with criss-cross bristles set at a 16-degree angle

Brush head movement: Oscillating -rotating-pulsating motion

Six Modes: Daily Clean, Gum Care, Sensitive, Whitening, Pro-Clean, Tongue Cleaning

Artificial intelligence: Sensors track brushing

Handle: Built-in 360º SmartRing that shows feedback on brushing pressure and duration; pressure sensor causes SmartRing to illuminate, and pulsations slow or stop if brushing is excessive. SmartRing color is programmable

Bluetooth technology: Connectivity with data uploading to the app from the brush

App: Real-time feedback; position detection technology; built-in timer to measure brushing time for each area. Programmable "Dental Care Journeys" brushing programs: Fresh Breath, Plaque Fighter, Whitening, Gum Health, Ortho Care

Battery-operated: Fully charged, lasts up to 12 days

Diamond Clean Smart 9700 (Phillips)

Brush heads: Include seven heads plus a tongue brush head

Brush heads movement: Sonic; up to 62,000 movements/minute

Six Modes: Daily Clean, Gum Care, Sensitive, Whitening, Pro-Clean, Tongue Cleaning

Smart Sensor Technology: Sensors track brushing location, pressure, scrubbing

Handle: Slim design; reminder icon for brush head replacement; illuminated display; ring lights up and handle vibrates when too much pressure is applied

Bluetooth technology: Connectivity with data uploading to the app from the brush

App: Real-time feedback; tracking on brushing location, pressure and duration; coaching on improved brushing

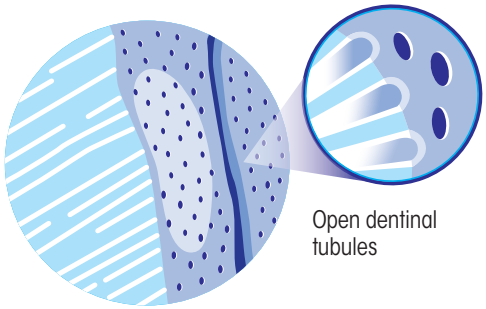
Battery-operated: Charges in a novel glass holder. Fully charged, lasts up to 14 days

Dentin Hypersensitivity:

Dentin hypersensitivity is a common problem involving a short, sharp pain that rapidly subsides. Dentin hypersensitivity occurs when dentin is exposed, dentinal tubules are open and a stimulus triggers pain. Patients may avoid triggers – for instance, foregoing cold drinks or foods to avoid pain. They may also avoid brushing sensitive areas, compromising their oral health. General sensitivity can occur during tooth whitening. Dentin sensitivity can be managed with home care and/or in-office treatments, which can be costly. Home treatments offer proven options for patients, and work over a period of one- to-two weeks.

Desensitizing toothpastes and gels

1. Avoiding neural signaling: 5% Potassium nitrate



Penetrates open dentinal tubules

↓

Increases the amount of extracellular potassium, which depolarizes the neural membranes and blocks repolarization

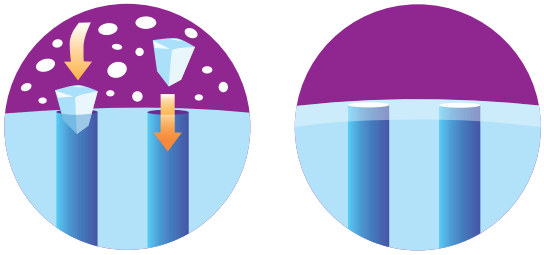
↓

Neural signaling is avoided and no pain is felt in response to triggers.

Options:

- ***Arm & Hammer Sensitive Teeth and Gums*** (Church & Dwight)
- ***Colgate Sensitive Plus Whitening*** (Colgate-Palmolive)
- ***Crest Sensitivity Protection*** (Procter & Gamble)
- ***Sensodyne Deep Clean*** (GSK)

2. Occluding/blocking the dentinal tubules



Substances block the tubules

↓

Prevents movement of fluid within the dentinal tubules in response to triggers

↓

No neural stimulation = no pain.

0.4% Stannous Fluoride

- ***Crest Pro-Health*** *(Procter & Gamble)*
- ***Enamelon gel*** *(Premier Dental)*
- ***Sensodyne Repair and Protect*** *(GSK)*

Calcium Phosphate Technologies

- ***Enamelon gel*** *(Premier Dental)*
- ***MI Paste Plus*** *and* ***MI Paste ONE*** *(GC America)*
- ***Novamin*** *(GSK – ex US)*
- ***Remin Pro*** *(VOCO)*

DENTAL ADVISOR 2018 TOP AWARD WINNER

MI Paste Plus® & MI Paste® ONE

GC America

MI Paste Plus® is a dental creme that contains 900 ppm fluoride and RECALDENT, which is composed of casein phosphopeptide-amorphous calcium phosphate (CCP-ACP). It releases bioavailable calcium phosphate and fluoride. ***MI Paste Plus*** can be used after brushing with a regular toothpaste, and can be applied with a finger, swab or used in custom trays. It should remain on the teeth for three minutes and can be used up to four times per day. ***MI Paste Plus*** relieves tooth sensitivity and enhances tooth remineralization. It is available in melon, mint, strawberry, tutti-frutti and vanilla flavors.

MI Paste®ONE is an anti-cavity toothpaste that contains the same amount of RECALDENT as ***MI Paste Plus,*** 0.24% sodium fluoride, and 5% potassium nitrate. ***MI Paste ONE*** releases bioavailable calcium, phosphate and fluoride. It presents another way to treat dentin sensitivity, as well as remineralize tooth enamel and help to prevent white spot lesions. It is available in a cool mint flavor.

Tooth Whitening

1 In-office whitening

Advantages

- Results in one visit
- Always supervised
- No potential for patient error
- High-tech image if it uses a light-based system

Disadvantages

- Expensive
- Higher peroxide concentration may cause sensitivity
- Potential for relapse
- Needs careful placement of gingival barrier to avoid irritation

Beyond® Polus Advanced is designed to accelerate whitening, and can also be used for spot whitening individual teeth. It consists of a combination of halogen and LED lights at a wavelength of 480-520 nm, and ultrasonic whitening technology that creates pressure to accelerate the whitening gel's chemical reactions. ***Beyond Polus Advanced*** has a built-in curing light with three settings (low, medium and high) and a motorized arm.

2 Home use, office dispensed

Advantages

- Supervised
- Results typically in two weeks
- Less expensive than in-office treatment
- Requires little chairside time

Disadvantages

- Relies on patient following instructions
- Slower results
- May require use of a custom tray
- 'Less high-tech' for patients
- Patient may over-use

3 Home use, self-purchased

Advantages

- Least expensive
- Choice of trays or strips

Disadvantages

- Relies on remote information and instructions
- No screening for contraindications or other issues
- No supervision
- Patient may over-use

Take-Home Whitening:

Venus White Pro (Kulzer) is provided in an attractive kit for dispensing to patients. Dentists and patients found the highly viscous, mint-flavored gel remained in the tray for effective whitening during the time of use. Half of the patients used the 22% gel and one-quarter each used the 16% and 35% gels. Over 60% of patients preferred to follow the nighttime whitening regimen. The amount of gel in each kit is adequate to produce significant whitening, and patients reported they were pleased with the results.

What's New:

GLO Science provides a dual teeth-whitening system consisting of an in-office treatment and take-home kit, providing the patient with the same patented technology used in the practice for continued whitening and maintenance at home. The ***GLO Science*** personal kit includes the same mouthpiece device used in the office which features *G.L.O (Guided Light Optics)* technology combining LED light with built-in heat-resistors to accelerate the whitening gel for fast results with little-to-no sensitivity.

WHAT'S NEW: SPECIALTY TOOTHBRUSHES

Here's an assortment of specialty toothbrushes and problem solvers for physical challenges with manual brushing.

Amabrush

A new concept that automates brushing. It consists of a mouthpiece with flexible bristles and a handpiece that attaches to the mouthpiece and causes the bristles to vibrate more than 10,000 times per minute to remove dental plaque. Toothpaste pods are inserted into the handpiece once a month and the handpiece delivers toothpaste foam that is delivered directly to the teeth through small microchannels in the mouthpiece. Brushing is reported to take 10 seconds.

Blizzident

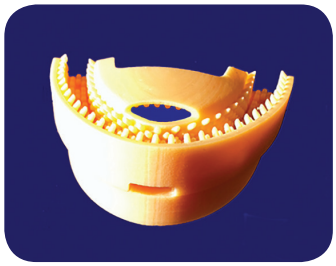
Blizzident is a 3D customized toothbrush created using traditional impressions or a digital scan of the individual's dentition. It consists of a mouthpiece with two strips of bristles placed to reach along the gumline (including in areas that are hard to reach) and additional bristle strips placed above the gumlines. Biting and grinding creates a dense area of customized bristles around the dentition and gumline. The bristle movements mimic a modified Bass technique to clean all areas, and it claims to remove plaque in as little as 6 seconds.

Dex T Brush

This brush is available from Adaptive Solutions. It is designed with an easy grip for adults and older children with limited dexterity. The ***Dex T Brush*** incorporates a rounded, elongated brush head with soft bristles, and a tongue scraper.

Clean Bite

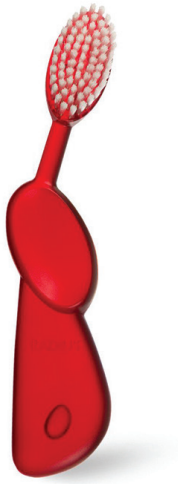
A single-use 'toothbrush' that looks like a mouthpiece and is made of a soluble foodstuff (primarily gelatin) that dissolves after use and can be swallowed. The brush was designed as a chewable device that doesn't need water, a sink or manual abilities. Amputees can use it to clean their teeth unaided, and it could be used in remote locations and as a delivery system. ***Clean Bite*** has been nominated for a 2018 London Business School Award.



Collis Curve

The ***Collis Curve*** manual brush is designed to clean three sides of the teeth at the same time for efficient plaque removal and to simultaneously massage the gingival margins. It is shaped to make brushing easier for people with limited hand and/or arm movement and to make it easier and more comfortable for caregivers to brush the teeth of individuals they are caring for. ***Collis Curve*** can also be used by children.

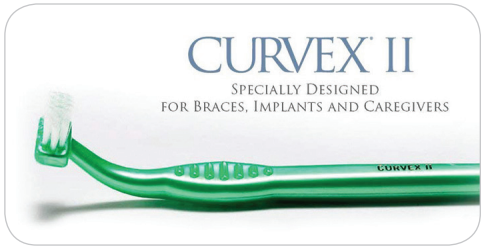
Radius



Large curved handle with thumb and palm grip may help patients with physical limitations. The handle incorporates a 45° brush-to-tooth angle and the Thumb-and-Palm design makes it easy to grip and control.

Brilliant 360

Brilliant 360 received a 2018 Award from DENTAL ADVISOR. This brush contains ultra-fine all-around soft bristles, cleans gently in whichever direction it is used and massages the gums. It is designed to always brush at a 45° angle, and was co-developed between Compac Industries and Osaka University Dental Clinic. Depending on the style of brush, it may contain up to 20,000 ultrafine bristles. Its design makes it easy to use, and is especially helpful for babies. It is also available for children and adults.



Curvex® II

The ***Curvex® II*** has extra-soft tapered bristles and a T-shaped handle. The handle has a flat area and is designed to be held by the fingers instead of using a traditional manual brush grip. It can be held vertically or horizontally.

- Patients with arthritis can use their fingers, and do not need to use wrist movements
- Approach makes it easier to brush babies' teeth
- Caregivers can stand in a suitable position and use arm movement and a vertical hold with their fingers

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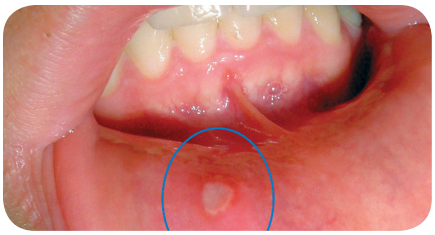
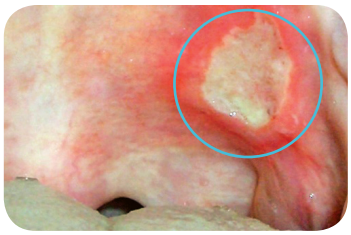
Aphthous Ulcers (Canker Sores)

The recurrent pain of aphthous ulcers interferes with everyday life. They affect eating, drinking and can also be uncomfortable when talking. Recurrent aphthous ulcers almost always occur on non-keratinized tissue. The least common are the longer-lasting herpetiform aphthous ulcers, which consist of multiple small ulcers clustered together. Major aphthous ulcers recur frequently, and herpetiform may be almost continual.



Minor Aphthous Ulcer

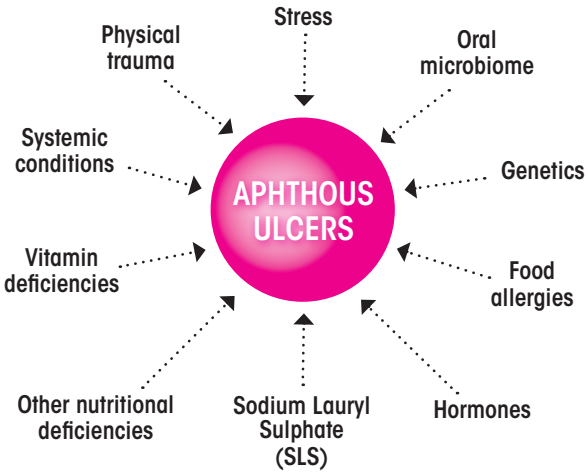
- 5 to 10 mm in diameter
- White/yellowish-greyish pseudomembrane
- Raised, inflamed periphery
- Short duration (up to two weeks)
- ~80% of aphthous ulcers



Major Aphthous Ulcer

- >1 cm in diameter
- Coalesce
- Severe inflammation, scarring
- Long duration (can last months)
- Up to 15% of aphthous ulcers

Potential factors for aphthous ulcers



Treatment options

- Over-the-counter lidocaine oral gel or other topical anesthetic
- Over-the-counter topical local anesthetic with corticosteroid
- ***VEGA Oral Care Gel*** (StellaLife)
- Bioadhesive rinses: ***Rincinol*** (Sunstar Americas); ***VEGA Oral Care Rinse*** (StellaLife)
- 1.5% Hydrogen Peroxide rinse (cleansing) – ***Orajel Antiseptic Rinse*** (Church & Dwight), ***Colgate Peroxyl Mouth Sore Rinse*** – alcohol-free (Colgate-Palmolive)
- Chlorhexidine gluconate mouth rinse – ***GUM*** (alcohol-free; Sunstar Americas); ***PerioRinse*** (Centura Pharmaceuticals)
- Zinc lozenges
- Triamcinalone acetonide
- Dexamethasone elixir
- Refer severe cases to oral medicine specialists

Tips for managing oral ulcer pain

- Brush gently with a soft-bristled toothbrush
- Avoid sharp-edged foods
- Avoid habits with potential to cause trauma

Questions from the Field

Q: A couple of my patients have complained that they suffer more from aphthous ulcers after they stopped smoking. Does this happen?

A: Yes. Some patients suffer more aphthous ulcers when they stop smoking. It's believed this is caused by changes in the oral mucosa. Tobacco smokers' oral mucosa is hyperkeratinized and when they quit this effect is lost. It's important to make sure patients have relief from these ulcers. Nicotine replacement therapy (e.g., patches or gum) may also help reduce their recurrence.

Q: Unbeknownst to me, my patient recently swapped out her toothpaste. She now suspects that the new toothpaste is causing mouth ulcers. Is this possible?

A: In some patients, sodium lauryl sulphate in toothpaste has been associated with aphthous ulcers. It's possible the one she just tried has a higher level of SLS. If your patient wasn't having ulcers before with her previous toothpaste, suggest that she switch back. Other options include using a toothpaste with less SLS or no SLS. SLS-free toothpastes are available, including dry mouth toothpastes.

GC Fuji® Automix LC

++++ ½

93% overall rating

GC America
www.gcamerica.com

Description

GC Fuji® Automix LC is a bioactive, light-cured, radiopaque, resin-reinforced glass ionomer restorative. It is moisture-tolerant, self-adheres to enamel and dentin, offers excellent fluoride release, and recharges with fluoride. It is mixed using *GC America's* single-use, disposable automix tips that mix the material as it is extruded, which can then be dispensed from the automix tip to the site with an ergonomic dispenser. After curing, restorations placed using ***GC Fuji Automix LC*** can be immediately finished and offer good esthetics. For improved adhesion, the surface can be prepared by conditioning it with *GC Cavity Conditioner*. ***GC Fuji Automix LC*** is available in a starter kit containing ***GC Fuji Automix LC*** cartridge shade A2, Paste-pak dispensing gun, 20 Intraoral mixing tips, and one 6 g bottle of *Cavity Conditioner*. The material is available in three shades – A1, A2 and A3.

Unique Features

- Bioactive material with exceptional fluoride release
- Automix delivery system with an ergonomic dispenser
- Radiopaque
- Virtually no post-operative sensitivity
- Coefficient of thermal expansion is similar to tooth structure

Indications

- Base or liner in a sandwich technique
- Pediatric Class I restorations
- Class III and Class V restorations
- Root surface caries and cervical erosion
- Core build-up

"THE EASE OF AUTOMIXING IS INCREDIBLE - FAR SUPERIOR TO TRITURATION."

Consultants' Comments

- *"Easy to use and efficient."*
- *"Great handling - does not stick to instrument or pull away from preparation."*
- *"Perfect for patients when isolation is an issue. I like that it can be light-cured."*
- *"The dispensing gun is fantastic. It is smooth and comfortable, offers great balance and requires very little force to dispense the material."*
- *"Good viscosity. This material stays where you put it, even on axial walls, without running."*
- *"The small automixing tips are great for access into small areas, and small amounts can be dispensed in a controlled way."*
- *"Good radiopacity."*
- *"Superior polish after finishing."*

Clinical Tips

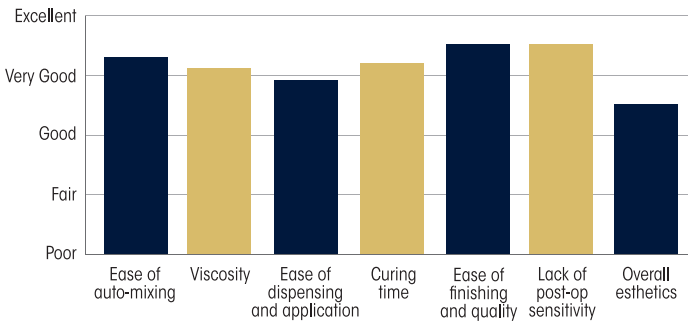
- Make sure the dispensing tips are locked into place.
- Do not use the tip to put pressure on a band or retract tissue because it spins easily.
- Great for primary teeth, Class V/root caries, build-ups and the sandwich technique.
- Work fast as the setting time is quick and use conditioner on instruments to aid handling.
- This product is very light sensitive; make sure you use your loupes with the filter.

Evaluation Highlights

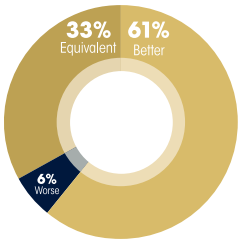
GC Fuji Automix LC was evaluated by 33 consultants, with a total of 490 uses.

- Unique gun and automix tips
- Moisture tolerant
- Good radiopacity
- Easy to use and efficient

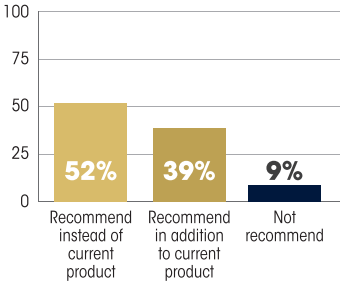
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



G-aenial™ BULK Injectable

++++ ½

91% overall rating

GC America
www.gcamerica.com

Description

G-aenial™ BULK Injectable is a radiopaque, light-cured, high-strength, nano-particle composite formulated to offer excellent viscosity and adaptation to the cavity preparation, helping to reduce the occurrence of porosities and air bubbles. This material may be used as an efficient, time-saving, one-step application for bulk filling up to the occlusal surface (up to 4 mm depth) without the need for capping or veneering with another composite. ***G-aenial™ BULK Injectable*** stays where placed and is non-sticky. The homogeneously dispersed, nano-particle formulation provides high flexural strength, wear resistance and gloss/color retention. ***G-aenial™ BULK Injectable*** is available in 3.4 g syringes in shades A1 and A2, together with tips.

Unique Features

- Efficient, one-step, bulk fill application
- Highly shapeable and easy to manipulate
- Homogeneously dispersed nano-particle formulation
- High flexural strength and wear resistance

Indications

- Base or liner
- Direct restorations in Classes I through V
- Core build-ups
- Blocking out undercuts
- Fissure sealants
- Sealing sensitive areas
- Repair of (in)direct and provisional restorations, defective margins in enamel

"THIS IS THE BEST BULK INJECTABLE WE HAVE USED. WE WILL BE SWITCHING."

Consultants' Comments

- *"Excellent viscosity, strength and adaptability."*
- *"Very easy to syringe into the preparation - no air bubbles/voids."*
- *"For a flowable composite, it is stiff enough to hold its shape better than others."*
- *"Very nice glassy finish for small occlusal fillings."*
- *"Good radiopacity."*
- *"The syringe tip was a little too wide."*
- *"Too translucent, but not an issue for posterior teeth."*
- *"This material feels soft when cutting it."*

Clinical Tips

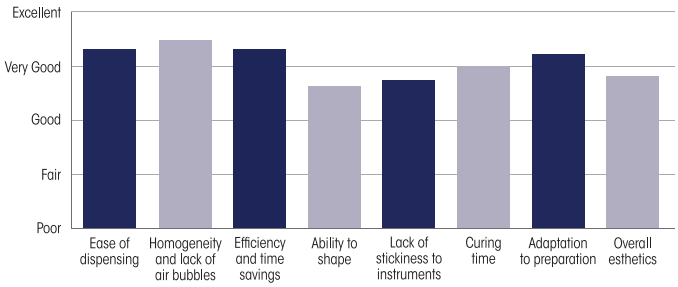
- Keep the tip immersed in the composite to avoid bubbles.
- Inject slowly and be careful how much pressure you use. It extrudes quickly and easily.
- Great for base layers, and for restoring endo/implant access holes.
- Allow time for it to settle into the preparation.
- For Class V restorations, tease the margins with an explorer to avoid gross overfill.
- Great for placing lingual orthodontic retainers. It did not slump and engaged the retainer wire.

Evaluation Highlights

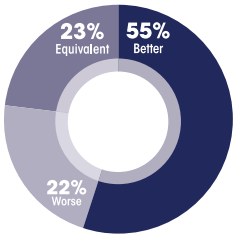
G-aenial™ BULK Injectable was evaluated by 31 consultants, with a total of 280 uses.

- Strong and adaptable
- Easy to dispense and use
- Versatile
- Efficient, saving chairside time

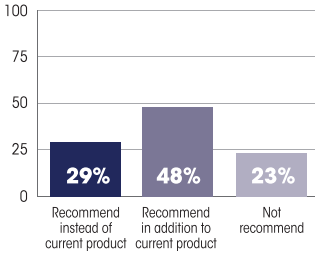
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



ASAP INDIRECT+

++++ ½

Clinician's Choice
www.clinicianschoice.com

91% overall rating

Description

ASAP INDIRECT+ is an intra-oral, diamond polishing system for indirect ceramic restorations. The diamond-impregnated adjusters in disc, point and cylinder shapes can be used to make minor adjustments or remove scratches introduced by diamond burs during adjustments. Diamond-impregnated pre-polisher (blue) and final polisher (pink) spiral wheels provide for a high-gloss final polish. The adjusters, pre-polishers and final polishers are autoclavable. ***ASAP INDIRECT+*** is available in a starter kit containing three adjusters (one each in disc, point and cylinder shapes), one spiral wheel pre-polisher (blue) and one spiral wheel final polisher (pink). In addition, a refill pack is available containing two polishers (1 ea: pre-polisher and final polisher), as well as refill packs containing either three pre-polishers, final polishers, or point, cylinder or disc adjusters.

Unique Features

- Color-coded adjusters, pre-polisher and final polisher
- High concentration of diamond particles and durable silicone binder
- Suitable for all restorative surfaces

Clinical Tips

- Great for adjusting screw-retained implant restorations. The intra-oral design allows for efficient adjustment without constant removal of the restoration to adjust it extra-orally.
- Use both spiral polishers to get a high gloss.
- Try using a diamond or porcelain polishing paste with the grey wheel.
- Light pressure works best.

"EASY TO USE, EFFICIENT POLISHING AND GREAT RESULTS."

Consultants' Comments

- *"It's easy to retain the surface anatomy with these polishers."*
- *"I used it on zirconia crowns and the luster was great."*
- *"The adjusters were very effective."*
- *"The spiral wheels adapt well to all surfaces and can get into tight areas."*
- *"I like that you can attach it to a latch slow speed handpiece for intra-oral use."*
- *"Good selection of shapes."*
- *"The polishers left a surface that was almost better than a glaze."*

Indication

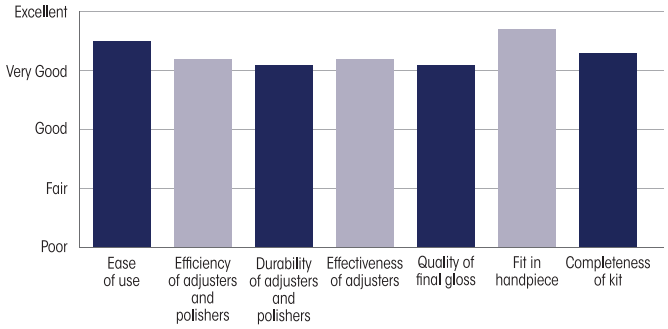
- Intra-oral polishing of indirect ceramic restorations

Evaluation Highlights

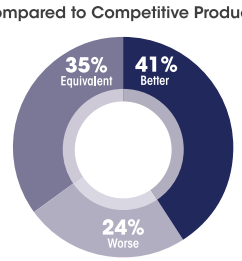
ASAP INDIRECT+ was evaluated by 29 consultants and was used 456 times in total.

- Easy to use
- Efficient adjustment and polishing
- Adaptable spiral wheels
- Autoclavable adjusters, pre-polishers and final polishers

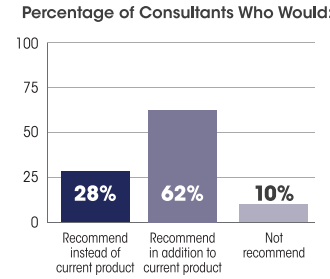
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



CLEARFIL MAJESTY ES Flow with CLEARFIL Universal Bond Quick

ONE-YEAR PROGRESS REPORT

Kuraray Noritake Dental Inc.
www.kuraraydental.com

98% rating at recall

Description:

CLEARFIL MAJESTY ES Flow is a light-cure, universal flowable composite. It contains submicron fillers that are treated with a proprietary silane coupling agent to provide for low shrinkage, high mechanical properties, and low viscosity. The submicron fillers and high filler load provide for esthetics. ***CLEARFIL Universal Bond Quick*** is a single-bottle, universal bonding agent that contains a novel rapid bond technology and releases fluoride. It is compatible with total-, self- and selective-etch techniques and with light-, self- and dual-cured materials (with CLEARFIL DC Activator).

Clinical Evaluation Protocol

A total of 99 ***CLEARFIL Universal Bond Quick*** with ***CLEARFIL MAJESTY ES Flow*** restorations were placed over an eight-month period. At year one, 92 restorations had been recalled, 68 of which had been in place for at least a year. Restorations were placed in 46 molars, 26 premolars and 27 anterior teeth (Figure 1). The classification of restorations was recorded with 46 Class I, 7 Class II, 1 Class III, 30 Class V, and 14 Class VI restorations (Figure 2).

Fig. 1: Distribution of ***CLEARFIL Universal Bond Quick*** with ***CLEARFIL MAJESTY ES Flow*** restorations.

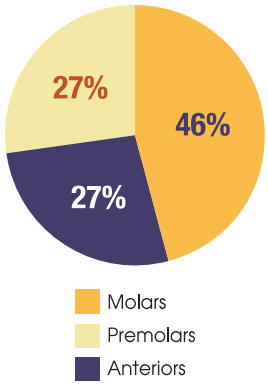
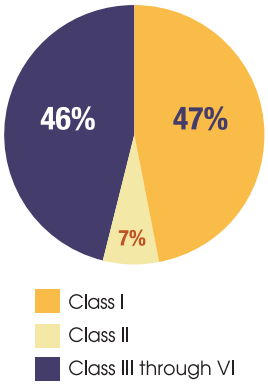


Fig. 2: Classification of ***CLEARFIL Universal Bond Quick*** with ***CLEARFIL MAJESTY ES Flow*** restorations.



Results at One-year Recall:

Recalled restorations were evaluated in the following areas: esthetics, lack of sensitivity, resistance to fracture/chipping, resistance to marginal discoloration, wear resistance, and retention. Restorations were evaluated on a 1-5 rating scale: **1= poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent**. Two restorations received a rating of one in each category, as they had debonded.

Esthetics

Eighty-nine of ninety-two recalled ***CLEARFIL Universal Bond Quick*** with ***CLEARFIL MAJESTY ES Flow*** restorations (97%) received an excellent rating of five (Figure 3). One restoration received a rating of four.

Lack of Sensitivity

Ninety of ninety-two recalled ***CLEARFIL Universal Bond Quick*** with ***CLEARFIL MAJESTY ES Flow*** restorations (98%) received an excellent rating of five (Figure 3).

Resistance to Fracture/Chipping

Ninety of ninety-two recalled ***CLEARFIL Universal Bond Quick*** with ***CLEARFIL MAJESTY ES Flow*** restorations (98%) received an excellent rating of five (Figure 3).

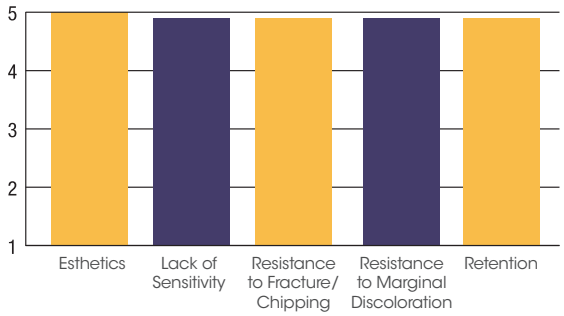
Resistance to Marginal Discoloration

Ninety of ninety-two recalled ***CLEARFIL Universal Bond Quick*** with ***CLEARFIL MAJESTY ES Flow*** restorations (98%) received an excellent rating of five (Figure 3).

Retention

Ninety of ninety-two recalled ***CLEARFIL Universal Bond Quick*** with ***CLEARFIL MAJESTY ES Flow*** restorations (98%) received an excellent rating of five (Figure 3).

Fig. 3: Clinical ratings for restorations at one-year recall.



Consultants' Comments

- *"I love flowables - **CLEARFIL MAJESTY** is in a class of its own."*
- *"I use **CLEARFIL MAJESTY** regularly in areas of incipient decay – flows well, very esthetic and polishes easily."*
- *"**CLEARFIL MAJESTY** is my go-to flowable to repair small chips in anterior teeth. It blends seamlessly with the tooth."*
- *"Great to use in abfraction areas in conjunction with **CLEARFIL Universal Bond Quick. CLEARFIL MAJESTY** bonds well and is very easy to finish and polish. Patients love the outcome."*

Summary

The clinical performance of recalled ***CLEARFIL Universal Bond Quick*** with ***CLEARFIL MAJESTY ES Flow*** restorations was exceptional. Esthetics was excellent, as were the lack of sensitivity, resistance to marginal discoloration, resistance to fracture/chipping and retention. The restorations will continue to be monitored over time. ***CLEARFIL Universal Bond Quick*** with ***CLEARFIL MAJESTY ES Flow*** received a clinical performance rating of 98% at one year.

Whiteness Perfect

++++

FGM
www.fgm.ind.br

87% overall rating

Description

Whiteness Perfect is a dentist-supervised, home-use bleaching agent for vital tooth whitening. It is available as a 10%, 16% and 22% carbamide peroxide whitening gel and contains potassium nitrate and sodium fluoride for desensitization. The gel is formulated to offer excellent viscosity to keep it in the whitening trays during use, and the pH is close to neutral to avoid demineralization of enamel and dentin. ***Whiteness Perfect 10%*** and ***16%*** are available in kits containing five syringes of gel (3 g each), five applicator tips, two soft-tray sheets (1 mm thick), and one case for storing trays. Each syringe contains sufficient product for up to nine applications. Mini-kits are also available in these concentrations, each containing three syringes (3 g each) and three applicator tips. ***Whiteness Perfect 22%*** is available in kits containing four syringes of gel (3 g each), four applicator tips, two soft-tray sheets (1 mm thick), and one case for storing trays. Bulk packs of individually wrapped 3 g syringes are also available.

Product Features

- Available in 10%, 16% and 22% carbamide peroxide
- Contains potassium nitrate and sodium fluoride as desensitizing agents
- Viscosity keeps whitening gel in the whitening trays during use
- Suitable as a follow-up after in-office bleaching, and as a whitening maintenance product
- Does not need refrigeration (the gel remains stable up to 25ºC)

Indication

- At-home tooth whitening

"EXCELLENT RESULTS. HIGHER THAN USUAL PATIENT SATISFACTION."

Consultants' Comments

- *"The whole system is a great way to go for the patient."*
- *"Easy for patients to dispense and use."*
- *"Nice presentation with everything you need in one kit, and plenty of material."*
- *"Minimal tooth sensitivity."*
- *"Smooth texture, good viscosity of gel and it stayed in the tray."*
- *"Good tray material."*
- *"Some sensitivity with the 16% and 22% concentrations."*
- *"The wear time seemed a little long for the stronger concentrations."*
- *"Packaging could be better."*

Clinical Tips

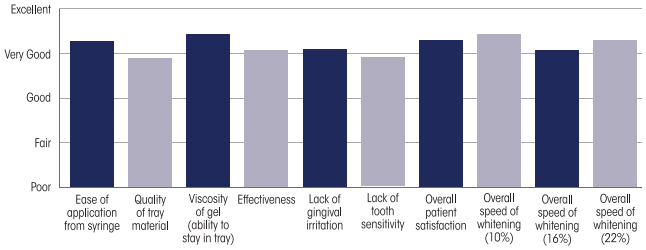
- A little goes a long way - dispense conservatively.
- Make sure patients don't overfill trays and ask them to wipe away any excess.
- Ask patients to apply Vaseline to their lips to protect them.
- Use in conjunction with desensitizing toothpaste.
- Wash thoroughly to remove the gel off teeth.

Evaluation Highlights

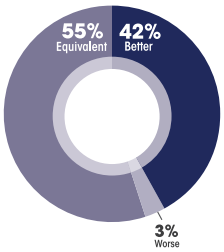
Whiteness Perfect was evaluated by 31 consultants and used by patients 242 times.

- Complete kit
- Easy to use
- Smooth texture and good viscosity
- Effective whitening
- Contains potassium nitrate and sodium fluoride

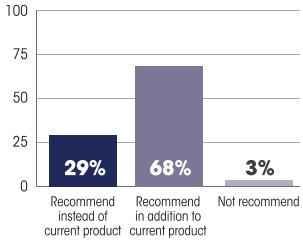
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



G-aenial™ Universal Injectable

+++++

GC America
www.gcamerica.com

EDITORS' DENTAL ADVISOR +++++ CHOICE

96% overall rating

Description

G-aenial™ Universal Injectable is an injectable, radiopaque, high-strength, nano-particle composite formulated to provide ideal viscosity and handling. It is shapeable and easy to manipulate, with excellent adaptation to the cavity preparation, helping to reduce the occurrence of porosities and air bubbles. The depth of cure ranges from 1.5 to 2.5 mm depending on the shade used. The homogeneously dispersed, nano-particle formulation provides high flexural strength, wear resistance, and retention of the restoration's gloss. ***G-aenial™ Universal Injectable*** is available in a kit with 2 x 1.7 g syringes in 16 shades, together with 10 each of the standard and long dispensing tip needles and two light-protective caps. Long dispensing tip needles are available as refills, 30 to a pack, together with two light-protective caps.

Unique Features

- Low extrusion force to dispense product
- Homogeneously dispersed nano-particles
- High flexural strength and wear resistance
- Resistant to discoloration

Indications

- Base or liner
- Direct restorations in Classes I through V
- Repair of (in)direct and provisional restorations, defective margins when in enamel
- Core build-ups
- Fissure sealants
- Blocking out undercuts
- Sealing sensitive areas

"THIS IS HANDS DOWN THE BEST INJECTABLE COMPOSITE ON THE MARKET. IT ADAPTS TO THE PREPARATION BETTER THAN ANYTHING I HAVE EVER USED."

Consultants' Comments

- *"Easy to use, versatile, good radiopacity and strength."*
- *"This material adapts beautifully, and it retains cusp form without slumping."*
- *"I was surprised at how well it flowed into deep restorations."*
- *"Very good esthetics and good shade matches with teeth."*
- *"Adaptation was great; patients were very happy with the outcome."*
- *"Cuts restoration time very significantly and drastically reduces finishing time."*
- *"You can use it as a base and the depth of cure is excellent."*
- *"I liked the freedom from bubbles and the high luster."*
- *"I liked the longer and easily bendable tips that came with it."*

Clinical Tips

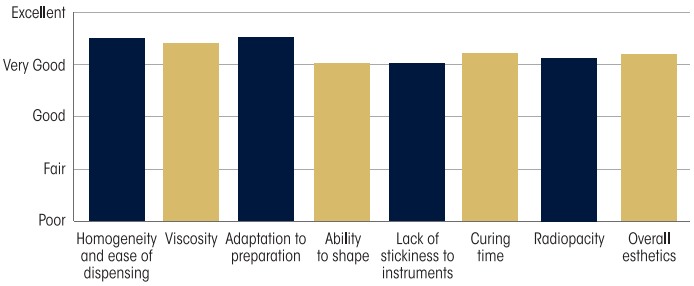
- Give it time to flow into crevices before curing.
- Adapts into place well with an explorer.
- Make sure the tips used to dispense the material have a wide gauge so that less pressure can be applied to the syringe.
- Create cuspal inclines with the syringe.
- This composite can be dragged to a fine feather edge, making it easy to blend it into the adjacent tooth structure.
- It polished with a Brownie point to a clinically acceptable finish.

Evaluation Highlights

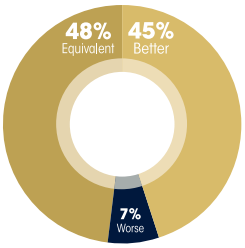
G-aenial™ Universal Injectable was evaluated by 29 consultants, with a total of 432 uses.

- Easy to dispense and flows well
- Adaptable and easy to shape
- Versatile
- Efficient, saving chairside time
- Good radiopacity
- Esthetic

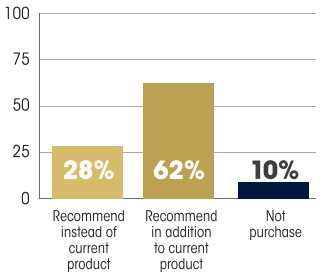
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



Rebilda Post GT

++++

86% overall rating

VOCO
www.voco.com

Description

Rebilda Post GT is an innovative, radiopaque bundled glass fiber-reinforced resin post consisting of multiple diametrically smaller (0.3 mm) posts designed to offer enhanced physical properties, adapt to the curvature of the root canal and to significantly reduce or eliminate the need to remove healthy tooth structure prior to post placement. The bundled posts have color-coded sleeves for different sizes that are removed after the bundled post has been placed. ***Rebilda Post GT*** is available as a kit containing five posts each in 0.8 mm, 1.0 mm, 1.2 mm, and 1.4 mm diameter sizes, together with a 5 mL bottle of *Ceramic Bond*, 20 *Futura Bond* single unit doses, a 10 g syringe of *Rebilda DC QM* dentin and accessories. Refill packs containing five posts in one of the four sizes are also available.

Unique Features

- High flexural strength and fracture resistance
- Elasticity similar to dentin
- Conservative preparation
- No special drill required
- Color-coded sleeves
- Suitable for all root canals including root canals with atypical anatomy or morphology

Indication

- Root canal posts, post and core build-ups

"GREAT FOR CORE BUILD-UPS. CREATES A CORE WITH FIBERS SPREAD THROUGHOUT IT."

Consultants' Comments

- *"A complete and versatile kit. It offers the ability to place the post into any canal size or shape without having to remove additional tooth structure."*
- *"Good adaptability. This product is especially wonderful for ovoid or figure-of-eight shaped canals that make post placement difficult without over-preparing canals."*
- *"Easy to fit the post and the build-up material was easy to handle."*
- *"All the small fibers can be a little tricky to handle. It was hard to cut off the excess length of fibers while holding them prior to curing."*
- *"Technique sensitive. Fibers would engage the canal walls, resulting in fibers of different lengths which slowed the process down."*

Clinical Tips

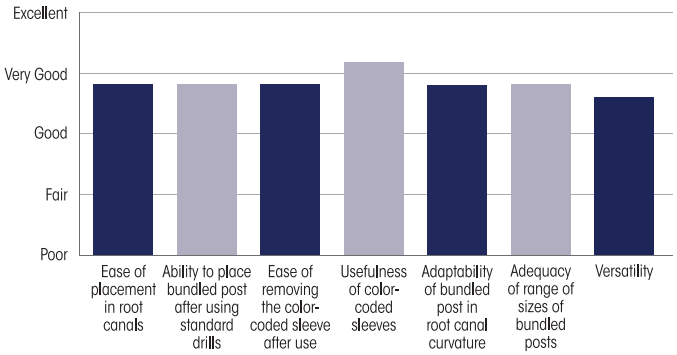
- It was very helpful to read all manufacturer's instructions and watch the video.
- Great for teeth with minimum remaining coronal structure.
- Go smaller than you think when choosing a post size.

Evaluation Highlights

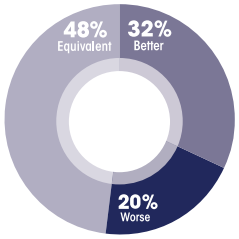
Rebilda Post GT was evaluated by 25 consultants, and used 361 times in total.

- System with bundled fiber posts splayed during placement
- Versatile
- Multiple steps
- Good adaptability to canals of all shapes

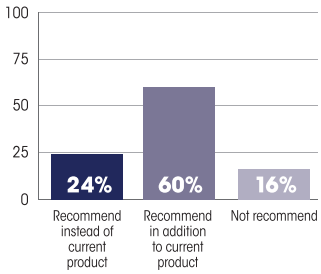
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



SMARTmatic S20 HP

+++++

EDITORS' CHOICE DENTAL ADVISOR +++++

98% overall rating

KaVo
www.kavo.com

Description

SMARTmatic S20 HP is a slow-speed handpiece designed primarily for restorative procedures. It offers a 1:1 transmission, with a maximum operating speed of 40,000 rpm, and is constructed of stainless steel for durability. Its ergonomic design includes optimized balance and a small head for improved visibility and precision. The head and body are seamless, making it possible to rapidly clean and disinfect the surface. ***SMARTmatic S20 HP*** is compatible with the *INTRA 181 H Air Motor, INTRA LUX 181K Air Motor, INTRA LUX KL703 LED Electric Motor* and the *INTRAmatic 181 M Quick Disconnect Air Motor.*

Unique Features

- 1:1 transmission
- Small head for visibility and access
- Constructed of stainless steel (no rusting)
- Seamless head and body for rapid disinfection

Indication

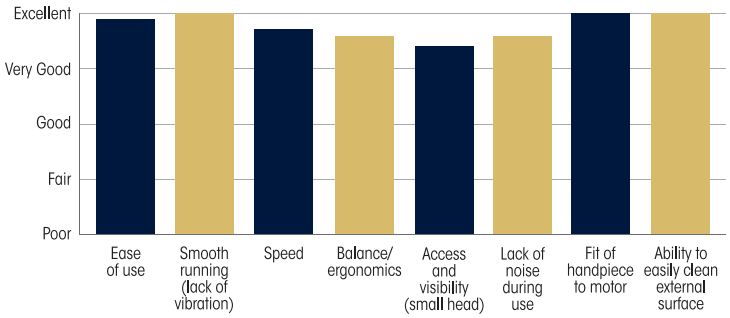
- Procedures requiring use of a slow-speed handpiece, primarily restorative procedures

Evaluation Highlights

SMARTmatic S20 HP was evaluated by nine consultants and used 180 times in total.

- Slow-speed handpiece with a small head for visibility and access
- Excellent speed and concentricity
- Runs quietly and smoothly
- Well balanced and ergonomic

Key Features:

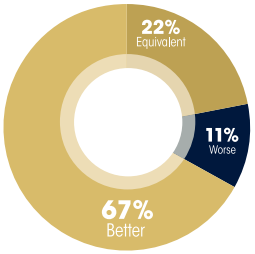


Consultants' Comments

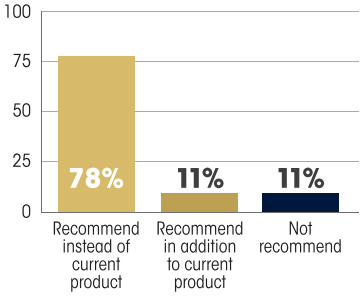
"THIS HANDPIECE IS A GREAT WORKHORSE – LOVED IT."

- *"Very quiet, well balanced and comfortable to use."*
- *"Runs smoothly, no chatter and good torque."*
- *"Excellent speed and concentricity."*
- *"Burs are easily changed out."*
- *"I enjoyed using this handpiece."*
- *"The handpiece is a bit heavy."*
- *"The attachment did not rotate easily on the motor. I had to rotate the attachment manually on the motor if any angle adjustments were needed."*

Compared to Competitive Products:



Percentage of Consultants Who Would:



Mighty Mini 90

++++ ½

Pac-Dent, Inc.
www.pac-dent.com

91% overall rating

Description

Mighty Mini 90 is a single-use, disposable prophy angle designed with a small, short head and slim profile to improve access and visibility during use. It is used with an ISO E-Type low-speed handpiece. This prophy angle incorporates a propriatory beveled gear design for smooth running, reduced vibration and quiet operation. In addition, the ribbing on the external surface and the excellent flare of the cup make subgingival, lingual and interproximal access much easier and more efficient. It is latex-free. ***Mighty Mini 90*** is available in boxes of 144 prophy angles with soft cups.

Indication

- For prophylaxis procedures

Unique Features

- Pre-sterilized and individually bagged
- Smooth-running, quiet beveled gear design
- Short head and slim profile for increased visibility and improved access
- Improved flare for better subgingival access
- Latex-free and ergonomic

"GOOD VISIBILITY WITH THE SMALL HEAD, SLIM PROFILE AND NARROW NECK."

Consultants' Comments

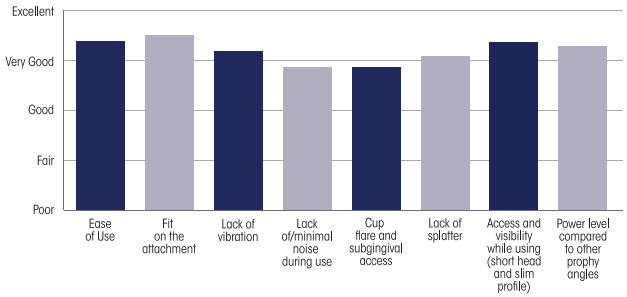
- *"A great prophy angle to get to hard-to-reach areas."*
- *"Great product - runs smoothly without any vibration, and good power level."*
- *"The cups flared nicely and went subgingivally with ease - good interproximal access."*
- *"There was minimal splatter."*
- *"Stable without vibration - the prophy angle stays on the motor."*

Evaluation Highlights

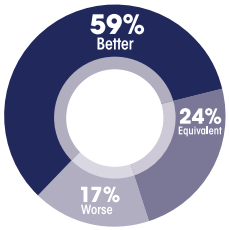
Mighty Mini 90 was evaluated by 17 consultants, with a total of 1,197 uses.

- Smooth-running, quiet beveled gear design
- The smaller powerful head allows for increased visibility and improved access
- Improved flare for better subgingival access
- Ergonomic shape reduces hand and arm micro-traumas
- 100% latex-free cup minimizes splatter

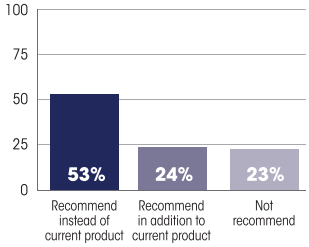
Key Features:



Compared to Competitive Products:



Percentage of Consultants Who Would:



SPECIAL THANKS TO:

Select Senior Clinical Consultants (Over 20 years):

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

Clinical Consultants (19 years or less):

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G. Bonior, MI · C. Brown, LA · E. Brust, MI · S. Bunek, MI · J. Bunek, MI · J. Bush, PA · H. Cadorette, MI · M. Capalbo, RI · M. Caligiuri, CA · P. Campo, NY · P. Cracchiolo, MI · D. Chacko, TN P. Chaiken, IL · R. Cherry, FL M. Connelly, MI
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A. Hakhamian, CA · W. Hanna, MI · J. Hastings, CA · A. Hodges, NC · C. Huang, CA · M. Huberty, WI · J. Ireland, MI · S. Irwin, NJ · C. Jaghab, MI · J. Jaghab, MI · T. Jolly, TN · R. Juluri, IL · M. Kachi-George, MI · D. Kapp, NY · J. Kane, MI · Y. Kang, MA
J. Karam, MI · G. Karaouzas, MI · E. Kelly, GA · J. Kelly, GA · L. Kemmet, MN · M. Koczarski, WA · B. Kolb, MI · GA Krishnan, CA · E. Kuns, OH · C. Laird, OR · R. Le, NC · I. Levine, NY · E. Lowe, BC, CAN · A. Malkis, NY · C. Manduzzi, MI · J. Mangutz, MI
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C. Piontkowski, MI B. Pittsley, MI · B. Pournaras, SC · A. Prince, UT · D. Radtke, MI · G. Ramos, NY · C. Ramsey, FL · G. Rashall, TX · S. Reddy, MI · N. Rego, CA · J. Riggs, MI · J. Rowe, AR · J. Rubin, DC · D. Ruhlig, MI · A. Saddy, MI S. Salhadar, MI
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J. Weinfield, MI · B. Wilk, PA · K. Wilson, MI · D. Wolf, MA · W. Wright, CA · Y. Yi, MA · D. Young, MI · S. Yun, MI · M. Yurth, WA · J. Zanetti, MI · A. Zucker, OH

Laboratory Consultants:

Apex Dental Milling, MI