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CR is the original and only independent dental product testing organization with funding only from dentists!

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CR BUYING GUIDE

Independently researching what is faster, easier, better, and less expensive



THE BEST PRODUCTS FOR 2024

Inside You Will Find:

- **STAND OUT PRODUCTS** marked with a ★
- **PROVEN PRODUCTS** that are commonly used and accepted by CR Evaluators
- **HIGHLY RATED NEW PRODUCTS**
- Index on page 20

This is not an all-inclusive list of successful dental products. Some categories are too broad and may not list proven products. For many other excellent products not mentioned, please review previous CR Buying Guides and Clinicians Reports at CliniciansReport.org.

Controlled clinical studies



Independent product testing



Scientific testing with clinical relevancy



Objective observations by 450 CR Evaluators



★ TOP CONCEPTS AND NEW PRODUCTS FOR 2024 ★



Rapid instrument turnaround with pre-vacuum autoclaves is very popular. The new ★ **Maxima Turbo Class B Sterilizer** (Henry Schein) provides a start-to-dry cycle time of under 20 minutes for small loads of wrapped instruments at a lower price. See page 5.



Handheld x-ray generators are changing the way intraoral radiographs are made, and most clinical staff members are enthusiastic about the simplicity and speed offered by ★ **EzRay Air P** (Vatech). See page 14.



A recently introduced conservative fixed full-arch attachment, ★ **LOCATOR FIXED** (Zest Dental Solutions), is rapidly gaining popularity and solves challenges like significant removal of bone associated with "all-on-four" technique. See page 4.



Many patients suffer with dry mouth symptoms. ★ **Allday Dry Mouth Gel** (Elevate Oral Care) provides relief with neutral pH, 44% xylitol, and a soothing mucoadhesive hydrogel. Also available is ★ **Allday 5000 Dry Mouth Toothpaste**. See pages 8 and 9.

A.I. (ARTIFICIAL INTELLIGENCE) IN DENTISTRY

A.I. for Direct Digital Radiography

See also *Clinicians Report* November 2023: “Dental A.I. is Here—Is it Hype, or Will it Help?”

CR Note: From limited evidence, it looks like A.I. caries detection is effective, but with only one year in the market, more interaction with users and long-term studies will be needed to fully validate this emerging technology.

Introductory Products for Caries Detection:

- **DetectAI**, Henry Schein One
- **DEXassist and DTX Studio Clinic**, Dexis
- **Overjet**, Overjet
- **Second Opinion**, Pearl
- **VideaAI**, VideaHealth

ANESTHETICS AND ACCESSORIES (ANESTHESIOLOGY, DENTAL)

See also *Clinicians Report* July 2023: “Managing Dental Fear and Anxiety (Part 1)”

Local Anesthesia

Proven Products:

- ★ **Articaine**, Various Companies (fast onset, effective, most used)
- **Bupivacaine**, Various Companies
- **Lidocaine**, Various Companies
- **Mepivocaine**, Various Companies

Sedation

See also *Clinicians Report* August 2023: “Managing Dental Fear and Anxiety (Part 2): Sedation”

CR Note: Which patients may benefit from sedation?

- Acknowledged anxious patient, adult or child
- High gag reflex
- Low pain threshold
- Need lots of dentistry
- Special needs/handicapped patient
- Coronary artery diseased patient

Topical Anesthesia

Proven Products:

- **Benzocaine 20%**, Various Companies
- **Profound Gels**, Carie Boyd Pharmaceuticals



Dental Pain Eraser, Synapse Dental

Unique in-office/at-home pain inhibitor (electrical stimulation to block pain receptors). Dentists used to replace topical, injectable, and for other spot pain relief. At-home for orthodontics, canker sores, TMD, tooth sensitivity, etc.

\$299/Pro Chairside

\$85/Home Device

See also *Dental Hygiene Clinicians Report* March/April 2023

DIAGNOSIS AND TREATMENT PLANNING

Cameras: Intraoral Video

Proven Products:

• **Various models from the following companies:**

- Acteon Group
- Air Techniques
- Carestream Dental
- Dexis
- Digital DOC
- ★ **MouthWatch** (lower cost)
- Video Dental Concepts



★ **MouthWatch (Proven Product)**, MouthWatch

Intraoral camera with fixed focus lens suitable for patient show-and-tell. **Excellent picture for lower-cost camera.**

\$299/Camera

See also *Dental Hygiene Clinicians Report* March/April 2023

ENDODONTICS

Gordon Tip: Endodontic treatment can reduce restorative life expectancy. Some studies show vital restored teeth serve longer than endodontically treated teeth. This finding should motivate dentists to preserve tooth vitality as long as possible by use of direct and indirect pulp capping procedures. Endodontic treatment should be accomplished only if pulp capping does not appear to be appropriate. See *Clinicians Report* July 2023.

Irrigation and Accessories

Proven Products: Active Irrigation

- ★ **EndoVac (positive and negative pressure irrigation)**, Kerr
- **GentleWave (multisonic cleaning)**, Sonendo
- ★ **NaviTip (narrow delivery tip)**, Ultradent
- **SmartLite Pro EndoActivator (sonic activation)**, Dentsply Sirona
- **Sonic M1500 Pro (sonic activation)**, Medidenta
- **Ultrasonic attachment tips**, Various Companies

Proven Products: Irrigation Solutions

- **Chlorhexidine 2%–4%**, Various Companies
- ★ **EDTA 17%–18%**, Various Companies
- ★ **Sodium Hypochlorite 3%–8%**, Various Companies

Proven Products: 2-in-1 Final Irrigating Solution

- **Irritrol Two-in-One**, EDS (Essential Dental Systems)
- **Qmix 2in1**, Dentsply Sirona
- **SmearClear Mix**, Kerr
- **SmearOFF 2-in-1**, Vista Apex Dental
- **TRITON**, Brasseler USA



MARK3 Canal Prep, sold through Dental Distributors

Root canal preparation cream aids file/canal lubrication and enhances cleaning with 10% urea-peroxide and 15% EDTA formulation.

\$27/18 g Jar (\$1.50/gram)

See also *Clinicians Report* March 2023

Obturation

CR Note: All obturation methods have similar results.

Proven Products:

- **Carrier-Based Obturation**, Various companies
- **Cold Lateral Condensation**, Various companies
- **Single Cone Obturation**, Various companies
- **Warm Vertical Obturation**, Various companies



BioRoot Flow, Septodont USA

Root canal filling material composed of calcium silicate with bioceramic properties. Pre-mixed for convenience and radiopaque for visualization.

\$130/2 gm Syringe (\$65/gm)

See also *Clinicians Report* June 2023

Root Repair (Also Bases/Liners and Pulp Capping)

See also *Clinicians Report* May 2023: “MTA: An Endodontic and Restorative Necessity”

CR Note: The primary distinctions between traditional MTA cement and more recent bioceramics lie in the additional elements incorporated into bioceramics to improve features such as radiopacity, bioactivity, durability, and ease of use. Existing studies also indicate that bioceramics could offer better antimicrobial properties than MTA, although further investigation is required to confirm this.

Proven Products:

- ★ **Endo-Eze MTAFlow and MTApeX**, Ultradent
- ★ **EndoSequence BC Sealer**, Brasseler (calcium silicate)
- **NeoMTA 2 (MTA)**, Avalon Biomed
- **ProRoot MTA (white or gray)**, Dentsply Sirona



BIO-C Repair, Angelus USA

Reparative cement for root repair treatments. Convenient syringe-dispensed putty with high alkalinity (ph12) for antibacterial action, calcium ions, zirconium oxide, hydrophilicity, and free of heavy metals.

\$140/Four 0.5 gm Syringes (\$70/gm)

See also *Clinicians Report* July 2023



★ Endo-Eze MTAFlow (Updated Proven Product), Ultradent

Flowable MTA indicated for: dentition vital pulpotomy, pulp cap, root-end fill, apexification, perf repair, and root resorption. Waiting time and set time are 15 minutes.

\$144/Kit

See also *Clinicians Report* May 2023



MTApeX (Updated Proven Product), Ultradent

Flowable bioceramic indicated for: obturation and sealing of root canals. Waiting time 10–20 minutes and set time 3–4 minutes.

\$145/Kit

See also *Clinicians Report* May 2023

ESTHETIC DENTISTRY

See also *Orthodontics* on page 6; *Prosthodontics, Fixed/Removable* on page 9; and *Restorative/Operative* on page 14

Anterior Tooth Restorations, Single, Indirect

See also *Clinicians Report* June 2023: “Single Anterior Tooth Restorations: Do Yours Match?”

CR Note: Given five-year data, e.max crowns fracture less often than cubic containing zirconia crowns ($\geq 4Y$) and have better esthetics as the percentage of light passing through e.max crowns is more similar to the amount passing through teeth compared to zirconia crowns.

Proven Products:

- **High Translucency Zirconia (4Y medium longevity)**, Various Companies
- **High Translucency Zirconia ($\geq 4Y$ low longevity)**, Various Companies
- ★ **IPS e.max MT (medium translucency, less gray/more white)**, **IPS e.max LT (low translucency, masking)**, and **IPS e.max HT (high translucency, most common but can gray)**, Ivoclar

Botox

See also *Clinicians Report* September 2023: “Botox in Dentistry: From Esthetics to Treating TMD”

Proven Products:

- ★ **Botox and Dermal Fillers (video V1570)**, Drs. Louis Malcmacher and Gordon J. Christensen, PCCDental.com

Gingival Restoration In-Office

See also *Clinicians Report* October 2023: “Restorative Management of Gingival Recession”

CR Note: Esthetic results are dependent on clinician’s skill. Shade matching gingival tissue is challenging, and gingival coloration varies significantly depending on tissue health, patient ethnicity, etc. Obtaining an excellent color match and life-like appearance is an art requiring significant experience. Longevity of esthetics is not as favorable as with lab-fabricated ceramics.

Proven Products: Resin-Based Composite

- **Amaris Gingiva**, VoCo
- ★ **Beautifil II Gingiva**, Shofu
- **PermaFlo Pink**, Ultradent
- **Renamel Gingafill**, Cosmedent

Gingival Restoration Laboratory Fabrication

CR Note: Discuss use of pink gingival ceramics/composites with your dental lab technician. They can recommend specific gingival shade guides or fabricate their own based on the system used in their lab. Ceramics have excellent esthetic longevity.

Proven Products: Gingival Ceramics

- **CM Soprano Surface Gingiva kit**, Anax USA
- **GC Initial MC Gum Shades**, GC America
- **IPS e.max Ceram Gingiva**, Ivoclar

Proven Products: Gingival Composites

- **Anaxgum**, Anax USA
- **GRADIA gum shades**, GC America
- **Gingiva Composite Paste**, Zirkon Zahn

Shade Taking

Proven Products:

- **Rite-lite PRO (chairside color-corrected light)**, AdDent
- ★ **Vita 3D-Master**, **Vitapan Classic Shade Guide**, and **Vita Linearguide 3D-Master**, VITA North America

IMPLANTS: PROSTHODONTICS

See also *Clinicians Report* February 2023: “Can Implant Failure Be Effectively Prevented or Treated?” and *Clinicians Report* March 2023: “What Is the Best Treatment for an Edentulous Patient?” and *Clinicians Report* August 2023: “Common Implant Problems and Possible Solutions”

CR Note: Implant failure causes identified through research and listed in approximate order of frequency.

- **Most frequent overall:**
 - Occlusion and prosthesis/crown design
 - Inadequate bone quality—osteopenia or osteoporosis
 - Improper surgical implant placement
 - Inadequate bone quantity
 - Angulation or position of implants
 - Smoking
- **Mentioned with less frequency:**
 - Systemic disease
 - Previous periodontal disease
 - Loading implants too early
 - Oral hygiene and microbes
 - Radiation
 - Titanium allergy
 - Diet



★ **LOCATOR FIXED** (*Updated Proven Product*), Zest Dental Solutions

Conservative and less expensive alternative to the “all-on-4” procedure. Similar technique to the standard Locator. LOCATOR FIXED does not require significant bone removal. This is a major advantage!

\$2,617/Bronze Starter Package

See also *Clinicians Report* March 2023

IMPLANTS: SURGERY

See also *Clinicians Report* July 2023: “Dental Implants: Zirconia vs. Titanium, A Material Comparison”

Gordon Tip: Small diameter implants are working as well or better than conventional diameter implants. When there is not adequate bone thickness for conventional diameter implants, small diameter implants are very adequate, especially for treatment of mandibular edentulism with adequate bone quality. They are a less complicated and less traumatic technique than placing standard diameter implants, and for many procedures, they can serve patients better than larger two-piece implants. See *Clinicians Report* July 2023.

Handpieces, Implant Surgery

- Various from the following companies:
 - Aseptico
 - W&H
 - Nouvag

Implants, Conventional Diameter, Titanium

Proven Products:

- Various from the following companies:
 - BioHorizons
 - Nobel Biocare
 - Dentsply Sirona
 - Straumann (*most sold*)
 - ★ **Implant Direct** (*most popular with general dentists; low-cost*)
 - ZimVie

Implants, Conventional Diameter, Zirconia

Proven Products:

- Various from the following companies:
 - CeraRoot
 - Straumann PURE
 - NobelPearl
 - Zeramex XT

Implants, Small Diameter (Minis)

Proven Products:

- Various from the following companies:
 - Glidewell
 - Sterngold
 - Intra-Lock
 - Zest Dental Solutions
 - Noris Medical

Peri-Implantitis Treatments

Proven Products:

- ★ **AIR-FLOW HANDY 3.0 with PERIO POWDER (glycine)**, EMS (safe and effective cleaning)
- Cavitron Prophy-Jet, Dentsply Sirona
- PROPHYflex 4, KaVo

INFECTION CONTROL / OSHA / EPA COMPLIANCE

Air Purification

CR Efficacy Criteria: Provides reliable high efficacy air purification during active rotary instrument use and requires minimal maintenance.

Proven Products:

- ★ **ECM Phantom**, Gordon Cleanroom Inc. (most effective downdraft HEPA filter) *Note: not affiliated with Dr. Gordon J. Christensen*

Dental Unit Waterline Validation

CR Efficacy Criteria: For validation of heterotrophic organism counts in water emitted from unit syringes, handpieces, and scalers.

Proven Products: Independent Testing Lab

- ★ **Sterisil Standard Check D-R2**, Solmetex

Proven Products: In-Office Testing

- ★ **Quick Pass Water Test Kit**, ProEdge Dental

Eye Protection

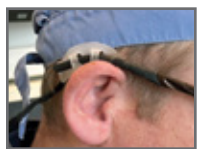
CR Efficacy Criteria: Completely covers eyes to block splatter, tolerates routine glutaraldehyde disinfection, and comfortable.

Proven Products: Dental Team

- Crosstex Face Shield (disposable face shield, GCSS), HuFriedyGroup
- HS Safety Shield (disposable face shield), Henry Schein
- ★ **Kimtech Lens Cleaning Station**, Kimberly Clark
- ★ **Loupes Face Shield**, UltraLight Optics (low cost)
- The Loupe Shield, Ambience PPE
- The OP-D-OP II (reusable face shield), Various Distributors

Proven Products: Patient

- ★ **Rollens**, Rollens



HuggOPTix Eyeglass Retainers, HuggOPTix.com

Eyewear retainer replaces cinch strap for convenience and reduced infection control challenge. CR researchers found them effective with safety eyewear and lightweight loupes of 2.5× to 3.5× magnification.

\$20 HuggOPTix Standard

\$24 HuggOPTix Pro (with 18-inch neck lanyard)

See also Clinicians Report September 2023

Face Masks

CR Efficacy Criteria: Adapts well to facial contours (peripheral fit), high filtration of very small particles, and does not contact nose or lips.

Proven Products:

- ★ #9502 N95 Molded Mask (preformed cup mask), 3M
- ★ Critical Cover PFL (Positive Facial Lock) with Magic Arch (soft pleated mask), AlphaProTech (excellent filter and best fit to face)
- ★ Crosstex Isolator Plus N-95 Mask (soft pleated mask, GPRN95), HuFriedyGroup

Gloves, Exam and Surgical

CR Efficacy Criteria: Low defects, good fit, good tactile sensitivity, resistance to tearing, and adequate cuff length.

Proven Products:

- IMS Lilac Gloves (utility gloves), HuFriedyGroup
- Le Soothe Sapphire (latex), SmartPractice
- ★ Nitrident Touch (nitrile), AmTouch
- ★ Xlim Nitrile Gloves (nitrile), Cranberry

Hand Antiseptics

CR Efficacy Criteria: Thorough hand washing followed by hand rub with rapid antimicrobial activity; non-irritating to skin.

Proven Products:

- ★ Hibiclens (4% chlorhexidine hand wash), Mölnlycke Health Care
- Purell Advanced (70% ethyl alcohol hand rub), GoJo
- VioNexus Antiseptic Hand Rub (72% ethyl alcohol hand rub), Kerr
- ★ ZaPro Hand Sanitizer (94% ethyl alcohol hand rub), CAO Group

Instrument Disinfection (Instrument Soaks)

CR Efficacy Criteria: Instruments cleaned without hand touching and disinfected with chemicals verified to kill in presence of fresh human whole blood and other human proteins.

Proven Products:

- Cidex OPA (0.55% ortho-phthalaldehyde), Advanced Sterilization Products
- ProCide-D Plus (3.4% glutaraldehyde), Kerr

Instrument Washers

Proven Products

- ★ HYDRIM L110W G4, SciCan

Protective Clothing

CR Efficacy Criteria: Made of polypropylene to tolerate repeated steam sterilization.

Proven Products:

- ★ Knee Length Disposable Lab Coat and Lab Jacket Disposable, Sara Glove
- MedFlex Premium Lab Coat, First Medica
- Safewear Hipster Jacket, Medicom
- TiSCRUBS, TiScrubs
- Vestex Clinic Jacket, ProSafe Products

Sterilizer Monitors

CR Efficacy Criteria: Biological monitor that verifies heat sterilization.

Proven Products:

- ★ 3M Attest Mini Auto-Reader Incubator used with 3M Attest Ampule #1492V, 3M

Sterilizers

See also *Clinicians Report* November 2023: “Fast Instrument Sterilization with Lower Cost”

CR Efficacy Criteria: Provide sterilization of instruments to meet FDA specifications with minimal damage to instruments.

Proven Products:

- ★ STATIM G4 (5000 and 2000) Rapid, SciCan
- Various Models, Midmark
- Various Models, Tuttnauer



★ Maxima Turbo Class B Sterilizer, Henry Schein

First look at a new lower-cost rapid autoclave with dynamic air removal, including pre- and post-vacuum. It processes small loads of wrapped or unwrapped instruments, start to dry, in under 20 minutes.

\$2,999/Sterilizer

See also Clinicians Report November 2023

Surface Disinfection

CR Efficacy Criteria: Verified fast kill of resistant non-enveloped virus in presence of fresh human whole blood.

Proven Products:

- ★ BioSURF Bag-in-a-Box (3 minute contact time), PureLife Dental (U.S.), Micrylium and Distributors (Canada)
- Clorox (one part Clorox to one part water for clinical use; 3-minute contact time), Clorox Company
- COEffect Minute Spray followed by COEffect Minute Wipes, GC America
- GermXtra (3 minute contact time; not available in U.S., available in other countries), Germiphene Corporation
- Lysol Spray Brand III (10 minute contact time), Rickitt Benckiser
- ★ ZaPro, CAO Group



★ ZaPro, CAO Group

New environmental 94% ethyl alcohol surface cleaner has one-minute **kill of viruses and bacteria in the presence of fresh whole human blood** (confirmed by TRAC Research). Still awaiting EPA clearance.

\$37.50/Gallon (29¢ oz)

See also Clinicians Report February 2023

Ultrasonic Cleaners and Accessories

CR Note: Do not overload cleaners, change solutions frequently (daily or more), and always run with lid on to avoid aerosol of potential microorganisms.

Proven Products:

- **BioSonic**, Coltene
- **Various**, L&R



MARK3 Ultrasonic Cleaner, Sold through dental distributors

Lower-cost and easy-to-store bio-enzymatic tablet for ultrasonic cleaner solution that is non-foaming, non-chlorine, and formulated with anti-rust component.

\$30/64 Tablets (47¢/Tablet)

See also Clinicians Report January 2023

LABORATORY TECHNOLOGY

Dentures

Proven Products: Dentures

- **Lucitone 199**, Dentsply Sirona (pressure packed)
- ★ **SR IvoCap and SR IvoBase**, Ivoclar (accurate vertical dimension because of injection molding)

Proven Products: Digital (CAD/CAM) Dentures

- **Various from the following companies:**
 - 3Shape
 - Dentsply Sirona
 - AvaDent
 - Ivoclar

Proven Products: Lower-Cost Chairside Dentures

- **Benchmark Denture**, Benchmark Dental
- **Larell One Step Denture**, Larell

Dentures: Repair, Rebase, Reline, and Polish

Proven Products: Chairside

- ★ **LOCATOR CHAIRSIDE Soft Reline**, Zest Dental Solutions (soft reline)
- ★ **Rebase III**, Tokuyama (hard reline)



MucoHard+, Parkell

Self-cure chairside reline and repair material that **matches common denture base acrylics**. Easy-to-use, quick set, and good shade matching of base acrylics.

\$93/Kit

See also Clinicians Report January 2023

OCCUSION

CR Note: Most accurate occlusal markings are accomplished by first having patient bite onto a 6-inch cotton roll to dry the occlusal surface, followed by immediate placement of the articulation medium.

Proven Products:

- ★ **AccuFilm II**, Parkell (most used, effective)
- **Arti-Fol**, Bausch Articulating
- **Madam Butterfly Articulating Silk**, Almore
- ★ **Occlusal Indicator Wax**, Kerr (fast indication of contacts)
- **T-Scan Novus (digital occlusal analysis)**, Tekscan
- ★ **Trollfoil Articulating Foil**, Directa Dental (marks polished surfaces)

OPERATIVE DENTISTRY

See Restorative/Operative on page 14

ORAL AND MAXILLOFACIAL SURGERY

See Surgery, Oral and Maxillofacial on page 18

ORAL PATHOLOGY

See Surgery, Oral and Maxillofacial on page 18

ORTHODONTICS

See also Clinicians Report June 2023: “**Aligner Orthodontics: Problems Observed and Keys to Success**”

Accessories

Proven Products:

- **OrthoDots CLEAR**, OrVance



OrthoDots CLEAR (Updated Proven Product), OrVance

Medical-grade silicone with moisture-activated adhesive provides protection from orthodontic appliances and clear aligners **better than wax**.

\$25/Box of 50 4ct Strips (12.5¢/Dot)

See also Dental Hygiene Clinicians Report March/April 2023

Clear Aligner Systems

Proven Products:

- **Clear Correct**, Straumann Group
- ★ **InVisalign**, Align Technologies (most used, effective)
- **Sure Smile**, Dentsply

Interproximal Reduction

Proven Products:

- **ContacEZ IPR Strips**, Directa Dental
- ★ **GC New Metal Strip**, GC America
- **MIR 2.0 (Interproximal Reduction)**, Microdont
- ★ **Needle Diamond Burs 8392.016 (F)**, Brasseler
- ★ **QwikStrip**, QwikStrips



Slenderization System (IPR), Strauss Diamond Instruments

Complete interproximal reduction diamond bur kit and storage bur block includes seven burs with depth-stop/facial- and lingual-edge rounding feature at 4.2 mm and four burs that are long, thin, with fine-grit diamonds.

\$118/Kit of 11 Diamonds and Bur Block

See also Clinicians Report July 2023

PEDIATRIC DENTISTRY

See also Restorative/Operative on page 14

Glass Ionomer Restoratives

See Restorative/Operative, Glass Ionomer Restoratives on page 16

Resin-Based Composites

See Restorative/Operative, Resin-Based Composite Restoratives on page 18

Resin-Modified Glass Ionomer Restoratives

Proven Products:

- ★ **GC Fuji II LC, GC Fuji Filling LC, and GC Fuji Automix LC**, GC America
- **Ketac Nano LC**, 3M
- **Riva Light Cure HV**, SDI

Silver Diamine Fluoride (SDF)

Proven Products:

- ★ **Advantage Arrest**, Elevate Oral Care
- **Riva Star Aqua**, SDI

PERIODONTICS

See also *Preventive Dentistry/Oral Hygiene* on page 8

Gordon Tip: Conservative periodontal treatment works. Dental hygienists are the key to implementing this concept. They must be motivated and conscientious to keep their patients coming in routinely and doing the procedures. ***The clinical result of choosing conservative periodontal treatment vs. conventional periodontal surgery can be impressive and well accepted by patients.*** See *Clinicians Report* July 2023.

Education, Periodontics

Proven Products:

- ★ **Making Perio a Successful Part of Your Practice** (video X4356), Drs. Kevin Suzuki and Gordon J. Christensen, PCCDental.com

PHARMACOLOGY

See also *Clinicians Report* February 2023: “Antibiotic Crisis!”

CR Note: For “super bug” prevention, it is imperative to minimize patient exposure to antibiotics. Clindamycin is no longer appropriate. Many conditions previously thought to require systemic antibiotics actually do not, such as many non-heart-valve-replacement conditions, medical devices (stents, pacemakers, non-weight-bearing implants), etc. Early root canal therapy (RCT), extraction, I&D (incision and drainage), etc., can minimize drug exposure. Antibiotics alone will not replace definitive treatment, including extraction, RCT, pus drainage, and elimination of the pathogen. Beware of the rapidly progressing disease with deep fascial space cellulitis. ***Better to lose a tooth than a life!*** Proper antibiotic choice and good surgical principles are required. Update yourself on antibiotic use.

Antibiotic Education

Proven Products:

- ★ **Antibiotic Prescribing: Controversy or Consensus?** (video V3937), Karen Baker, R.Ph., MS, and Dr. Gordon J. Christensen, PCCDental.com

Medical and Dental Pharmacology

Proven Products:

- ★ **Lexicomp The Little Dental Drug Booklet and Lexicomp Dental Office Medical Emergencies** (book), Wolters Kluwer (Amazon)
- ★ **The Ultimate Cheat Sheets**, Ultimate Cheat Sheets (quick reference)

Medicaments and Pain Medication

Proven Products: Temporary Pain Relief, Recurring Soft Tissue Irritation

- **Anbesol Gel (20% benzocaine)**, Foundation Consumer Healthcare
- **Orajel (20% benzocaine)**, Church & Dwight
- **PerioSpot**, Dental Herb Company
- ★ **StellaLife VEGA Oral Care Peppermint Gel**, StellaLife



★ OraSoothe “Sockit” Gel, Septodont

Syringe-dispensed hydrogel for healing, protection, and pain management of many oral wounds including dry socket prevention. Designed for application in office with education on home use for continued treatment and pain soothing.

\$99/Kit of Five 10 gm Syringes (~10 ml)
(~\$20/Syringe)

See also *Clinicians Report* October 2023

PRACTICE MANAGEMENT

See also *Clinicians Report* January 2023: “Practice Success in Inflationary Times”

CR Note: Keys to success are knowing your strengths and weaknesses, increasing revenue, and cutting costs. Increasing productivity per employee (\$/employee) is the best way to fight inflation. Continuing education of doctors and staff can open doors to providing services that are more profitable and are appreciated by patients. Creating the WOW in patient visits every day and connecting with the community will make the patient base far less fee sensitive. Above all, hard work, attention to details, and an unbiased objective view of their practice coupled with a burning desire to succeed and serve will help most practitioners thrive when unpredictable economic realities appear during their careers.

Education: Self and Team

See also *Clinicians Report* July 2023: “Gordon: Ten Things I Wish I Had Learned Sooner!”

Gordon Tip: The dentist does not have to accomplish every clinical procedure him/herself. Your dental team is your most important asset. Choose your team wisely, train them properly, compensate them generously, show them respect, and delegate whenever possible. Encourage and promote enthusiasm and ensure the dental practice is a happy environment. Bring your entire team to continuing education. Keep them excited and motivated by regularly providing opportunities to acquire new skills. See *Clinicians Report* July 2023.

Gordon Tip: There are good days and bad days. After a day that could have been better, go home, relax, do something enjoyable, put the bad day out of your mind and seek mental peace. Tomorrow will be a better day! See *Clinicians Report* July 2023.

Gordon Tip: Diagnostic data collection by staff. By having team members accomplish these tasks, the dentist has a productive hour treating other patients, the staff person has an excellent learning experience and diversity in their day, and a complete treatment plan is accomplished—everybody is a winner. See *Clinicians Report* July 2023.

Proven Products:

- **American Dental Assistants Association**, ADAUSA.org
- ★ **CR Dentistry Update Courses and Clinicians Report** (monthly publication), CR Foundation (independent, current)
- ★ **PCC DVDs, Streaming, and Courses**, Dr. Gordon J. Christensen, PCCDental.com (faster, easier, better clinical techniques)



★ *The Book on Dental Marketing*, DentalCMO

Unique and comprehensive 300-page book focused specifically on dental marketing.

Authored by Rusty Curtis with step-by-step plans to develop a specific marketing strategy based on the individual dental practice's needs.

\$119/Digital and Audio Book

See also *Clinicians Report* February 2023



★ *Untangling The Business of Dentistry*, Doug Disraeli, DDS

Book on **starting and maintaining a dental practice**. Filled with anecdotes, internal marketing ideas, hiring, training, and overcoming everyday challenges.

\$19.95/Paperback Book from Amazon

See also *Clinicians Report* June 2023

Insurance Coding

See also *Clinicians Report* March 2023: "Medical Billing in Dentistry: What You Should Know"

CR Note: Although challenging and often frustrating, medical billing in a dental practice can be beneficial for patients by helping them pay less out-of-pocket for medical-related procedures. Once in place in the dental practice, medical billing becomes repetitive and routine and can be very rewarding for dental practices.

Proven Products:

- ★ **CDT Coding**, ADA www.ada.org
- ★ **Dental Coding with Confidence, Medical Dental Cross Coding with Confidence, and Dental Administration with Confidence**, eAssist Publishing (*practical*)

Patient Comfort



★ *NECK-O Pillows (Cervical)*, Neck-O Pillows

Patented neck pillow **designed for patient comfort while allowing practitioner access to work efficiently**. Fabricated to be washable (100% cotton shell) and also has a removable cover.

\$30/Pillow

See also *Clinicians Report* November 2023

PREVENTIVE DENTISTRY / ORAL HYGIENE

Gordon Tip: Preserving natural teeth provides the longest, most effective and predictable long-term results for patients. Encourage and help accomplish research on **preventing dental caries, periodontal disease, and occlusal problems** that cause tooth loss. Routinely use the numerous preventive techniques available for all ages of patients. Educate yourself about the best methods for preventing the diseases and learn how to restore apparently hopeless teeth to normal form and function instead of removing them and causing additional restorative problems. See *Clinicians Report* July 2023.

Desensitizers, Cervical

Proven Products:

- **Fluoride Varnish 5000 ppm**, Various Companies
- **Predicta Desensitizer**, Parkell
- ★ **Shield Force Plus**, Tokuyama
- ★ **TEETHMATE Desensitizer**, Kuraray Noritake



Predicta Bioactive Desensitizer, Parkell

Desensitizer **provides fast and effective relief** from cervical dentin hypersensitivity. Contains calcium and phosphate ions that can stimulate formation of hydroxyapatite.

\$52/3 ml Syringe

See also *Clinicians Report* September 2023

Fluoride Dentifrice

Proven Products: Dentifrices

- ★ **PreviDent 5000 (various)**, Colgate Professional (*most effective*)



★ *Allday 5000 Dry Mouth Toothpaste*, Elevate Oral Care

Prescription 5000 ppm fluoride dentifrice with neutral pH, 44% xylitol, and a new generation **soothing and moistening biosurfactant** for a pleasant mouth feel.

\$20/Box with Two 3.4 ml Tubes (\$2.94/ml)

See also *Clinicians Report* August 2023

Oral Rinses

CR Efficacy Criteria: Validated log₁₀ reduction of relevant microbes within clinically relevant type and amount of human protein.

Proven Products: Pre-Treatment Rinse

- **GUM Paroex Alcohol-Free (CHG, alcohol free)**, Sunstar
- ★ **ioRinse RTU (molecular iodine)**, ioTech International (COVID-19 kill)
- ★ **Peridex (CHG, alcohol)**, 3M (most used, effective)
- **PerioGard (CHG, alcohol)**, Colgate Professional

Proven Products: Routine Use

- **CloSYS Mouthrinse (various, chlorine dioxide)**, Rowpar Pharmaceuticals
- **Crest Pro-Health Rinse (cetylpyridinium chloride)**, Procter & Gamble
- ★ **LISTERINE (essential oils, alcohol)**, Johnson & Johnson
- ★ **StellaLife VEGA Oral Care Rinse (homeopathic compounds)**, StellaLife
- ★ **Tooth and Gums Tonic (essential oils and herbs)**, Dental Herb Company (natural and highly effective)

Prophylaxis: Propy Handpieces, Cordless

See also *Clinicians Report* October 2023: "Cordless Propy Handpieces: Are they worth the expense?"

Proven Products:

- ★ **Freestyle Pro Cordless**, Medidenta (lower cost)
- **iStar Cordless**, DentalEZ
- **Nupro Freedom Cordless**, Dentsply Sirona
- ★ **ProMate CL Hygiene Handpiece**, Pac-Dent



★ *Freestyle Pro Cordless (Proven Product)*, Medidenta

Lower-cost cordless propy handpiece with six speeds, good torque, two-year warranty, and **rechargeable battery that may be replaced if needed**.

\$999/System

See also *Clinicians Report* October 2023



★ **ProMate CL Hygiene Handpiece** (Proven Product), Pac-Dent

Well received cordless prophylaxis handpiece with six speeds, good torque, two-year warranty, and **rechargeable battery that may be replaced** if needed.

\$1,186/System

See also Clinicians Report October 2023

Scalers, Curettes: Hand

Proven Products:

- **Eaglete M23 and Various**, American Eagle Instruments
- **Montana Jack R138**, PDT (Paradise Dental Technologies)
- **Various**, HuFriedyGroup
- **Various**, Nordent



HARMONY Scaler (Proven Product), HuFriedyGroup

Hand scaler with a **unique scientifically designed handle to reduce hand fatigue**. 96 EverEdge 2.0 tip designs are available with claims of being 72% sharper than leading competitors.

\$81/Scaler

See also Dental Hygiene Clinicians Report July/August 2023

Sealants

See also Dental Hygiene Clinicians Report July/August 2023: **"Improving Sealant Success and Longevity"**

CR Note: Flowable resins are liked by many clinicians for ease of use but are best suited for more durable sealants than traditional sealants. Flowables are also useful for small restorations, temporary crown repairs, etc. Although formulations have improved, in general, they still have higher shrinkage and lower physical properties than conventional composites making them less than ideal for use as liners under restorations or as enamel replacement layers in high-wear, large, or stress-bearing restorations.

Proven Products: Flowable Resins for More Durable Sealants

- **Beautifil Flow Plus**, Shofu
- ★ **Filtek Supreme Ultra flowable**, 3M
- **G-aenial Universal Flo**, GC America
- **Tetric EvoFlow**, Ivoclar

Proven Products: Resin-Based Composites for Most Durable Sealants

- **Filtek Supreme Ultra**, 3M
- **Herculite Ultra**, Kerr

Proven Products: Sealants

- ★ **GC Fuji Triage EP**, GC America (high fluoride release)
- **UltraSeal XT plus and UltraSeal XT hydro**, Ultradent



★ **GC Fuji Triage EP** (Updated Proven Product), GC America

Glass ionomer sealant with **high fluoride release with therapeutic potential**. Requires re-application if chips and wear occur.

\$290/Box of 50 (\$5.80/Compule)

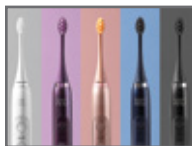
See also Clinicians Report April 2023

Toothbrushes

CR Note: CR and others have shown that many automated toothbrushes remove plaque far more efficiently than traditional toothbrushes.

Proven Products: Automated

- ★ **Oral-B (various)**, Procter & Gamble
- **PRO-SYS VarioSonic Powerbrush**, Benco (lower cost)
- ★ **Sonicare (automated)**, Philips



ARU, Ashtel Studios

Lower-cost sonic toothbrush kit with long charge, two-minute timer, and unique hexagonal bristles that are gentle for cleaning gums, sulcus, and between teeth.

\$40/Brush (professional price)

See also Clinicians Report August 2023

Xerostomia

Proven Products:

- **Biotene Products**, Biotene
- **OraCoat XyliMelts**, OraHealth
- ★ **StellaLife VEGA Oral Care Peppermint Gel and StellaLife VEGA Oral Care Rinse**, StellaLife



★ **Allday Dry Mouth Gel**, Elevate Oral Care

This neutral pH gel uses a **special mucoadhesive hydrogel** and maximum xylitol concentration (44%) to relieve dry mouth symptoms.

\$10.33/Two 42.5 g Tubes (12¢/gram)

See also Clinicians Report March 2023

PROSTHODONTICS, FIXED / REMOVABLE

Cements, Provisional

Clinical Tip: Clinicians may select provisional cements on the basis of reducing sensitivity (eugenol-based). **In CR tests, eugenol-based provisional cement had no significant influence on the shear bond strength** of final cements after 10–14 days and with thorough cleaning of preparations.

Proven Products: Temporary Clear Esthetic

- ★ **ClearTemp LC (resin, veneer only)**, Ultradent
- **NexTemp Clear (resin)**, Premier Dental
- ★ **Temp-Bond Clear with Triclosan (resin, non-eugenol)**, Kerr
- **TempoCem ID (non-eugenol)**, DMG America

Proven Products: Temporary Resin

- **E.T.C. (resin, non-eugenol)**, Parkell
- ★ **NexTemp (resin, non-eugenol)**, Premier Dental

Proven Products: Temporary Non-Resin Cement

- **Durelon (polycarboxylate)**, RelyX Temp E (zinc oxide, eugenol), and RelyX Temp NE (zinc oxide, non-eugenol), 3M
- **Fynal and IRM (zinc oxide, eugenol)**, Dentsply Sirona
- **GC TEMP ADVANTAGE (zinc oxide, non-eugenol)**, GC America
- ★ **Temp-Bond (zinc oxide, eugenol) and Temp-Bond NE (zinc oxide, non-eugenol)**, Kerr (most used, lower cost)
- **TempoCem (zinc oxide with or without eugenol)**, DMG America
- **UltraTemp (polycarboxylate)**, Ultradent



★ **Temp-Bond Original** (*Proven Product*), Kerr

Zinc oxide eugenol (ZOE) provisional cement can improve patient experience with **lower incidence of post-operative sensitivity** and NOT effect permanent bond when in place, about two weeks.

\$137/Kit (\$13.59/ml)

See also Clinicians Report January 2023

Cements, Resin: Adhesive (with Separate Self-Etch Primer)

Proven Products:

- ★ **C&B-Metabond Quick**, Parkell (well known especially for salvage)
- **ESTECM II**, Tokuyama
- ★ **Multilink Automix**, Ivoclar (most used)
- ★ **Panavia F2.0 and Panavia V5**, Kuraray Noritake
- **RelyX Ultimate**, 3M

Cements, Resin: Esthetic, Veneer (with Separate Adhesive and Light Cure)

Proven Products:

- **Calibra Veneer LC**, Dentsply Sirona
- **Insure LC**, Cosmedent
- **NX3 LC**, Kerr
- **Panavia Veneer LC**, Kuraray Noritake
- ★ **PermaShade LC**, Ultradent (lower cost)
- **RelyX Veneer LC**, 3M
- ★ **Variolink Esthetic LC**, Ivoclar

Cements, Resin: Self-Adhesive (No Separate Primer)

Proven Products:

- **Calibra Universal**, Dentsply Sirona
- **G-CEM ONE**, GC America
- **Maxcem Elite Chroma**, Kerr
- **Panavia SA Cement Universal**, Kuraray Noritake
- ★ **RelyX Universal Resin Cement**, 3M (improved on RelyX Unicem 2)
- **SpeedCEM Plus**, Ivoclar



MARK3 EverCem, Sold through dental distributors

Lower-cost dual-cure resin cement is radiopaque and has easy clean-up. Syringe dispensed, self-etching, and self-adhesive in clear and universal shades.

\$70/8 gm Auto-mix Syringe (\$8.74/g, \$10.98/ml)

See also Clinicians Report June 2023

Cements, Resin-Modified Glass Ionomer and Similar

Proven Products:

- **Breeze RMGI**, Pentron
- **CALIBRA BIO (calcium aluminate and GI)**, Dentsply Sirona
- **Ceramir (calcium aluminate and GI)**, Directa Dental
- ★ **GC Fuji PLUS** (triturator mixed) and **GC FujiCEM Evolve (RMGI)** (easy placement, cleanup, higher radiopacity), GC America
- **Meron Plus QM**, VOCO
- **Nexus RMGI**, Kerr
- ★ **RelyX Luting Plus (RMGI)**, 3M (most popular)

Core Buildups and Accessories

See also *Clinicians Report* October 2023: “**When are Core Buildups Necessary?**”

Proven Products:

- ★ **Absolute Dentin**, Parkell (low cost)
- ★ **Build-it**, Pentron (most popular)
- **Clearfil Photo Core**, Kuraray Noritake
- **CompCore AF SyringeMix Stack**, Premier Dental
- ★ **Core Paste**, DenMat
- **FluoroCore 2+**, Dentsply Sirona
- **MultiCore**, Ivoclar (highly radiopaque)
- **Visalys Core**, Kettenbach



★ **Absolute Dentin** (*Proven Product*), Parkell

Dual-cure buildup resin delivered in a dual-barrel, auto-mix syringe. Flowable yet thixotropic consistency for stacking with minimal slump. Low cost. Available in white, tooth, and contrasting blue colors.

\$111/Two 10 ml Syringes (~\$5.55/ml)

See also Clinicians Report October 2023



★ **Build-it FR** (*Proven Product*), Pentron

Dual-cure buildup resin delivered in a dual-barrel, auto-mix syringe. Flowable yet thixotropic consistency for stacking with minimal slump. Low cost. Available in white, A2, A3, and contrasting blue or gold colors.

\$159/Five 4 ml Syringes (~\$7.95/ml)

See also Clinicians Report October 2023



★ **Core Paste XP** (*Proven Product*), DenMat

Dual-cure buildup resin delivered in a dual-barrel, auto-mix syringe. Flowable yet thixotropic consistency for stacking with minimal slump. Low cost. Available in white, enamel, and contrasting blue colors.

\$342/Four 10 g Syringes (~\$8.55/ml)

See also Clinicians Report October 2023



MARK3 Core Build-Up, Sold through dental distributors

Lower-cost resin-based composite core buildup material with nano-zirconium, good viscosity, and desirable radiopacity. Available in blue, white, and A3 shades.

\$90/Two 5 ml Syringes (~\$9/ml)

See also Clinicians Report August 2023

Crowns

See also *Clinicians Report* January 2023: “Some Crowns Are Not Fitting—Why?”

CR Note: Milled zirconia crowns do not fit as adequately as previous crowns. Challenges include internal spacing issues, occlusal spacing issues, and lack of communicating with lab. Zirconia crowns can and should have an acceptable fit. If loose fitting crowns are experienced, work with your laboratory technician to address the spacing issues and to refine crown fit to meet clinical expectations with the various materials. Critically evaluate your own preps and impressions to minimize flaws. *The convenience of a digital workflow should not compromise excellent clinical fit and function of crowns.*

CR Note: Zirconia types and their service longevity indicate clinical uses. Physical properties present in tetragonal (3Y) zirconia impart a “margin of safety” from fracture not present in the cubic containing (4Y, 5Y, 6Y) and “exceptions” formulations in this study. Based on this, CR suggests the following indications:

- **Tetragonal zirconia:** 1) molars, 2) posterior multi-units, 3) minimal preps, 4) abusive occlusion, 5) occlusal adjustment expected, 6) endo entry expected, 7) high-risk lifestyle, and 8) maximum longevity wanted.
- **Cubic Containing and “Exceptions” zirconias:** If optimum zirconia translucence is demanded by the patient and/or dentist. These have more breakage than tetragonal (3Y) zirconia.

Proven Products: Ceramic

- **CZR Press (pressed ceramic)**, Kuraray Noritake
- ★ **IPS e.max (lithium disilicate)**, Ivoclar (most esthetic)

Proven Products: Gold

- **Full Gold Alloy**, Various Companies

Zirconia, cubic containing: ~75% tetragonal phase, ~25% cubic phase (4Y, LT, translucent, esthetic, MT, medium translucent), and cubic containing ~50% tetragonal phase, 50% cubic phase (5Y, translucent, esthetic, UT, ultra translucent)

- **BruXZir Esthetic (5Y)**, Glidewell
- **Katana Zirconia STML (5Y)**, Kuraray Noritake
- **Lava Esthetics**, 3M

Zirconia, “exceptions” claim strength similar to Tetragonal zirconia, but CR/TRAC data indicate clinical outcome similar to cubic containing zirconias.

- **Alien HT and Alien Multi-Layer**, Alien Milling Technologies
- **ArgenZ HT+**, Argen
- **Zirlux Transition**, Zahn Dental

Zirconia, tetragonal ~100% tetragonal phase, 0% cubic phase (3Y, LT, low translucent, full strength).

- ★ **BruXZir Full Strength**, Glidewell (most popular posterior)
- ★ **IPS e.max ZirCAD LT (3Y)** and **IPS e.max ZirCAD Prime (3Y core, 5Y incisal)**, Ivoclar
- **Zirlux 16+**, Zahn Dental

Dentures

See *Laboratory Technology* on page 6

Finishers/Polishers: Ceramics

See also *Clinicians Report* May 2023: “Adjusting Zirconia Restorations: Techniques, Tips, and Products”

CR Note: There are a variety of instruments and/or components which can be combined to successfully accomplish finishing. Highest polish is usually accomplished after finishing by using a polishing paste with special applicators (felt wheels). Proven products below are a combination of individual instruments and complete kits.

Proven Products: Ceramics

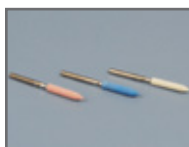
- **All Ceramic Polishers**, Cosmedent
- ★ **Dialite and Dialite Feather Lite**, Brasseler USA
- ★ **DiaShine**, DiaShine
- **Jiffy All Ceramic Polishing Kit**, Ultradent
- **Luster (intraoral) and Luster for Zirconia**, Meisinger
- **Zircon-Brite**, DVA (Dental Ventures of America)

Proven Products: Zirconia Adjusting and Polishing Kits

- **A.S.A.P. Indirect+**, Clinician's Choice
- **David Hornbrook Zirconia Kit**, Diashine
- **eZr**, Garrison Dental Solutions
- **Great White Z Zirconia & Lithium Kit**, SS White
- **Magic Touch Zirconia Bite Adjustment**, Strauss Diamond Instruments
- **ZKD4 finishing kit**, Horico

Proven Products: Zirconia Polishing Kits

- **OptraGloss Ceramic Kit**, Ivoclar



TRIO Polishing Systems, Prosthodontix

Unique “diamond-bur shaped” polishing system designed for better access and precise finishing and polishing of zirconia and lithium disilicate.

\$45/TRIO System

See also *Clinicians Report* October 2023

Hemostatic Cord and Soft Tissue Management

Proven Products: Cords

- **GingiBraid+ Shortcut**, Kerr
- **Knit Pak+**, Premier Dental
- **Roeko Stay-Put**, Coltene
- ★ **UltraPak**, Ultradent
- **Z-Twist Weave Braided Cord**, Gingi-Pak

Proven Products: Hemostasis and Styptics

- ★ **Astringedent**, **ViscoStat**, and **ViscoStat Clear**, Ultradent
- **Hemoban Gel**, Dentsply Sirona
- **Hemodent**, Premier



Quick-Stat Free, Vista Apex Dental

Lower-cost aluminum chloride hemostatic gel has fast, safe results for esthetic cases. Quick and easy to apply, and good hemostasis quickly that does not stain.

\$23/Four 1.2 ml Syringes (\$4.89/ml)

See also *Clinicians Report* July 2023

Impressions

See also *Clinicians Report* April 2023: “Complete Denture Impressions—Can Yours Be Better?” and August 2023: “Five Tips for Better Impressions”

Impression Materials: Bite Registration

Proven Products:

- ★ **Blu-Mousse**, Parkell



Blu-Bite HP, Henry Schein

This **lower priced**, rigid, PVS bite registration material provides high accuracy and is especially for situations with no or few undercuts, mal-positioned dentition, and periodontal condition that could lock it in place.

\$47/Two 48 ml Cartridges (49¢/ml)

See also Clinicians Report May 2023



FUTAR Easy Fast, Kettenbach

Fast setting bite registration material is **rigid when set, accurate, and easy to trim**. The fast 15-second working time and 45-second intraoral set is appreciated by patients and clinicians.

\$69/Two 50 ml Cartridges (69¢/ml)

See also Clinicians Report July 2023

Impression Materials—PVS/Polyether

Proven Products: Polyether

- ★ **Impregum Super Quick and Permadyne**, 3M

Proven Products: PVS

- ★ **Aquasil Ultra+**, Dentsply Sirona
- **EXA Advanced (PVS) and EXA'lence (VPES)**, GC America
- **Flexitime and Xantasil (PVS-alginate alternative)**, Kulzer
- **Imprint 4**, 3M
- **MARK3 eXact VPS Impression Material**, Sold through dental distributors (lower cost)
- **Reflection**, Patterson
- **Splash! Max**, DenMat
- **Take 1 Advanced**, Kerr
- **Thermo Clone VPS**, Ultradent
- **VP MIX HP**, Henry Schein (lower cost)
- ★ **Vaccu-Sil Impression Material**, HO Dental Company (lower cost)
- **Virtual XD**, Ivoclar



VP MIX HP Max Hydro, Henry Schein

PVS impression material with **accuracy of premium brands at lower cost**. Fast setting time, excellent detail, and pleasant flavors/scents (wild berry, mint, and unflavored).

\$102/Two 48 ml Cartridges (31¢/ml)

See also Clinicians Report April 2023

Impression Trays and Accessories

Proven Products:

- ★ **Directed Flow Tray (stock)**, 3M (excellent stock tray)
- ★ **Easy Cure 2 (light cure oven)**, Henry Schein (fast 30–90 sec cure)
- **Megatray Custom Tray Material**, Various Companies
- ★ **Quad-Tray Xtreme (dual-arch)**, Clinician's Choice
- **SternTek Custom Tray Material**, Sterngold
- ★ **Triple-Tray (sideless dual-arch) and Triple-Tray Anterior (dual-arch, sided)**, Premier Dental (most used)

Impressions: Digital

Proven Products: Intraoral Scanners

- **Various models from the following companies:**
 - 3Shape
 - Align Technology
 - Dentsply Sirona
 - Planmeca
 - Dexis



Ori, Ori

Lower-cost intraoral scanner features a small and lightweight handpiece (7 oz) and intuitive software that Evaluators found easy to use.

\$15,990/Scanner and Software

See also Clinicians Report February 2023

Pins

Proven Products:

- ★ **Filpin**, Filhol Dental
- ★ **Nordin Retention Pins**, Nordin SA
- **Stabilok**, Fairfax Dental (Various Companies)



★ **Nordin Retention Pins (Proven Product)**, Nordin SA

Pure titanium pins with ease of placement, good price, and availability. They are self-shearing and easily bent for increased retention.

\$24/Kit of 12 Pins and Drill (\$2.02/Pin)

See also Clinicians Report April 2023

Primers, Cleaners, and Ceramic Etch for Indirect Restorations

Proven Products: Ceramic Etch (for glass ceramic)

- **Monobond Etch & Prime**, Ivoclar
- **Porcelain Etch and Silane**, Ultradent
- **Porcelain Etchant**, Bisco

Proven Products: MDP and Silane combined (for glass ceramic, metal, or zirconia)

- ★ **CLEARFIL CERAMIC PRIMER PLUS**, Kuraray Noritake
- **GC Ceramic Primer II**, GC America
- ★ **Monobond Plus (primer)**, Ivoclar
- **Premier Universal Primer**, Premier Dental
- ★ **Scotchbond Universal Plus (adhesive)**, 3M

Proven Products: Zirconia/Ceramic Cleaner

- **Ivoclean**, Ivoclar
- ★ **KATANA Cleaner**, Kuraray Noritake (quick, easy)
- **ZirClean**, Bisco



ZR-C Universal Cleanser, Vista Apex Dental

Water-based, acidic (pH 3.19) zirconia cleaner has a **quicker rinse step** than some other popular cleaners. Apply, allow to dwell 20 seconds and rinse thoroughly.

\$36/5 gram Bottle (~\$7.21/ml)

See also Clinicians Report May 2023



ZR-P Universal Primer, Vista Apex Dental

MDP-containing universal primer that **doubled zirconia bond strengths** compared to no primer on sandblasted zirconia.

\$85/4 ml Dropper Bottle (\$21.25/ml)

See also Clinicians Report June 2023

Provisional Materials

See also *Clinicians Report* March 2023: “What Temporary Crown Material Should You be Using?”

Proven Products: Bis-acryl Resins

- Inspire, Clinician's Choice
- Integrity Multi-Cure, Dentsply Sirona
- ★ Luxatemp Ultra, DMG America (most used)
- MARK3 C&B Material, Dental Distributors
- Protemp Plus, 3M
- Structure Premium, VOCO
- Temporary Crown and Bridge Material, Patterson
- ★ Visalys Temp, Kettenbach



★ Luxatemp Ultra (Proven Product), DMG America

Most used in auto-mix (bis-acryl) category. Also was average for price, setting time (5 min), and above average for flexural strength/modulus in CR comparison.

\$293/76 g Cartridge (\$5.55/ml)

See also *Clinicians Report* March 2023



★ TempSpan, Pentron

Top esthetics in auto-mix (bis-acryl) category. Also was above average for in lower price, setting time (4 min), and flexural strength/modulus in CR comparison.

\$140/50 ml Cartridge (\$3.42/ml)

See also *Clinicians Report* March 2023



★ Visalys Temp, Kettenbach

Top esthetics in auto-mix (bis-acryl) category. Also was above average for in lower price, setting time (4 min), and flexural strength/modulus in CR comparison.

\$199/50 ml Cartridge (\$3.98/ml)

See also *Clinicians Report* March 2023

RADIOLOGY: ORAL AND MAXILLOFACIAL

Alignment Systems

See also *Dental Hygiene Clinicians Report* January/February 2023: “Sensor Alignment Devices—What’s the Angle?”

Proven Products:

- ComfyRay XT Skinny, DentiMax (lower cost, simple)
- ★ Rinn XCP-ORA, Dentsply Sirona

Cone Beam

See also *Clinicians Report* September 2023: “Using Cone Beam Radiography in General Practice”

Proven Products:

- Various models from the following companies:
 - Carestream Dental
 - Planmeca
 - Dentsply Sirona
 - Vatech
 - Dexis



CS9600, Carestream Dental

CBCT with high image quality, artifact reduction, operator console, intuitive software, scout image, low dose option, patient positioning options, and multiple field of view (FOV) options.

~\$112,000

See also *Clinicians Report* September 2023



Explorer EX, PreXion

Large FOV CBCT with high image quality in a single scan with no stitching, artifact reduction, scout image, low dose option, patient positioning options, multi-FOV options, and 10-year warranty.

~\$71,000

See also *Clinicians Report* September 2023



★ Green X, Vatech

CBCT with **highest image quality and clarity**, artifact reduction, intuitive software, scout image, low dose option, multi-FOV options, and 10-year full parts warranty.

~\$110,000

See also *Clinicians Report* September 2023



OP 3D, Dexis

CBCT with high image quality, artifact reduction, intuitive software, scout image, multi-FOV options, digital workflow integration with optional DTX Studio software, and lower cost.

~\$66,000

See also *Clinicians Report* September 2023



Viso G7, Planmeca

CBCT with high image quality, artifact reduction, patient motion detection, operator console, scout image, ultra low dose option, patient positioning options, and multi-FOV options with largest FOV.

~\$125,000

See also *Clinicians Report* September 2023



X-Mind Prime 2 3D, Acteon

CBCT with high image quality, artifact reduction, low dose option, wall mount option for small area, multi-FOV options, digital workflow integration with AIS software, and lower cost.

~\$55,000

See also *Clinicians Report* September 2023

Handheld Units, Radiography

See also *Clinicians Report* May 2023: “Why Do Clinical Staff Prefer Handheld X-ray Units?”

Proven Products:

- ★ **EzRay Air P**, Vatech
- ★ **NOMAD Pro 2**, Dexis



Cocoon, Dexcowin

Convenient, handheld portable X-ray generator at 4.8 pounds, it is significantly lighter weight and lower cost than similar pistol-grip models.

~\$5,200/Handheld Unit

See also *Clinicians Report* May 2023



★ **EzRay Air P** (Proven Product), VATECH

Convenient, handheld portable X-ray generator at 4.7 pounds, it is significantly lighter weight and lower cost than similar pistol-grip models.

~\$6,900/Handheld Unit

See also *Clinicians Report* March 2023 and May 2023



iRay D3, Dexcowin

Convenient, handheld portable X-ray generator at 4.4 pounds, it is significantly lighter weight and lower cost than pistol-grip models.

~\$4,000/Handheld Unit

See also *Clinicians Report* May 2023



MobileX, Video Dental Concepts

Convenient, handheld portable X-ray generator at 4.6 pounds, it is significantly lighter weight and lower cost than pistol-grip models.

~\$4,795/Handheld Unit

See also *Clinicians Report* May 2023

Intraoral Digital Sensors

Proven Products:

- ★ **DC-Air**, FTG (Freedom Technologies Group) (best image quality)
- **DEXIS Platinum**, **DEXIS Titanium**, Dexis
- **Schick 33**, Dentsply Sirona
- Various models from the following companies:
 - Air Techniques
 - Carestream Dental
 - DentiMax
 - Dexis
 - Sota Imaging
 - Vatech
 - XDR Radiology



Open Sensor, DentiMax

Lower-cost CMOS sensors exhibited excellent resolution, sensitivity, image quality, and exposure latitude in controlled comparisons with other leading sensor brands.

\$2,499/Sensor



Pluto-X, iRay Technology

CMOS sensors exhibited excellent resolution, sensitivity, image quality, and exposure latitude in controlled comparisons with other leading sensor brands.

~\$2,999–\$4,999/Sensor

See also *Clinicians Report* January 2023

RESTORATIVE / OPERATIVE

See also *Clinicians Report* September 2023: “Composite Complications: Predictable Solutions”

Adhesives

Proven Products:

- **Adhese Universal**, Ivoclar (lower cost)
- **All-Bond Universal**, Bisco
- ★ **Brush&Bond MAX**, Parkell
- ★ **CLEARFIL SE BOND 2** and **CLEARFIL Universal Bond Quick**, Kuraray Noritake (SE Bond 2 first to add MDP monomer)
- **G-Premio BOND**, GC America
- **ONE COAT 7 UNIVERSAL**, Coltene
- **OptiBond eXTRa Universal** and **OptiBond FL**, Kerr
- **Peak SE Primer**, Ultradent
- ★ **Scotchbond Universal Plus**, 3M (most used)



★ **Scotchbond Universal Plus** (Proven Product), 3M

Highly successful adhesive has improved ease of use and compatibility with all light-, dual- and auto-cure resins and cements. Includes MDP primer for compatibility with zirconia.

\$244/Kit with 5 ml Bottle, Etchant, Brushes, and Tips

See also *Clinicians Report* April 2023

Bases/Liners and Pulp Capping

See also *Endodontics, Root Repair* on page 3

CR Note: Liners are well-proven for insulating/protecting deep dentin and lowering post-op sensitivity.

- RMGI liners are **clinically proven** and **most used** for indirect pulp capping, but have not yet been submitted to FDA for 510K clearance on pulp capping.
- **MTA** is highly suitable for pulp capping, but has been previously criticized for long setting time, poor handling properties, and high cost. *Newer MTA materials have improved these challenges.*
- **CR suggested indirect and direct pulp cap technique:**
 - 1) Provide informed consent and decide with patient to proceed.
 - 2) Remove caries (avoid exposure of pulp).
 - 3) Two 1-minute applications of GLUMA or equivalent (including on minimally exposed pulp, direct cap).
 - 4) Layer of MTA or other over pulp.
 - 5) Conventional glass ionomer (Equia Forte or others) to replace dentin (open or closed preparation).
 - 6) Place composite.

Proven Products:

- **Ceramir Protect LC Syringe** (calcium aluminate and methacrylate), Directa Dental
- **Dycal** (calcium hydroxide), Dentsply Sirona
- ★ **Endo-Eze MTAFlow White** (MTA) and **MTApex** (calcium phosphate and hydroxyapatite), Ultradent (effective pulp cap)
- ★ **EQUIA Forte** (GI) and **GC Fuji Lining LC** (RMGI), GC America (effective dentin replacement)
- **NeoMTA 2** (MTA) and **NeoPUTTY** (MTA), Avalon Biomed
- **TheraCal** (various) and **TheraBase** (calcium silicate), Bisco
- ★ **Vitrebond Plus** (RMGI), 3M (most used, effective liner)

Cements

See *Prosthodontics, Fixed/Removable* on page 9

Curing Light Radiometers

Proven Products:

- ★ **Bluephase Meter II**, Ivoclar
- **CheckUp Smart Radiometer**, Bluelight Analytics
- **Curing Light Radiometer**, Spring Health Products
- **Maxima Curing Light Meter**, Henry Schein

Curing Lights, Resin

See also *Clinicians Report* June 2023: “Resin Curing Lights—The Latest Technologies”

CR Note: Today’s highest intensity lights are very bright: **eye protection must be used**. Exercise caution to avoid overheating oral tissues and pulp by using air from syringe while curing.

Proven Products: LED curing lights

- **Fusion 5**, DentLight
- **PinkWave**, Vista Apex Dental
- **Monet**, CAO Group (LED laser)
- **The Cure TC-3**, Spring Health
- ★ **Valo Grand and Valo X**, Ultradent (most used, durable, high intensity)
- Various models from the following companies:

– 3M	– GC America
– Dentsply Sirona	– Ivoclar



MedPlus Q7, Mecco

Lower-cost LED curing light (online purchase) has desirable features (10.0 mm / 90° tip, high intensity = 1,900 mW/cm², 1.8 watts output power) to help attain adequate cure. Long-term availability and durability undetermined.

\$168/LED Curing Light

See also *Clinicians Report* June 2023



Monet, Cao Group

LED laser curing light has desirable features (12.6 mm / 90° tip, high intensity = 3,800 mW/cm², 2.7 watts output power) for adequate cure. **Eye protection mandatory**.

\$2,499/Laser Curing Light

See also *Clinicians Report* June 2023



Swedent LED Curing Light, Swedent Wholesale

Lower-cost LED curing light (online purchase) has desirable features (7.5 mm / 90° tip, maximum intensity = 2,000 mW/cm², 1.0 watts output power) to help attain adequate cure. Long-term availability and durability undetermined.

\$199/LED Curing Light

See also *Clinicians Report* May 2023 and June 2023



VAFU, AZDENT

Lower-cost LED curing light (online purchase) has desirable features (9.5 mm / 90° tip, high intensity = 2,700 mW/cm², 2.3 watts output power) to help attain adequate cure. Long-term availability and durability undetermined.

\$300/LED Curing Light

See also *Clinicians Report* June 2023



★ Valo X (Updated Proven Product), Ultradent

LED curing light has desirable features (12.5 mm / 90° tip, high intensity = 2,400 mW/cm², 3.0 watts output power) and **received highest overall rating in CR comparison**.

\$2,299/LED Curing Light

See also *Clinicians Report* June 2023

Desensitizers: Preparation Disinfection

Gordon Tip: Desensitizing and disinfecting tooth preparations.

The application process is simple: two 1-minute applications of MicroPrime G, GLUMA, or other similar product (5% glutaraldehyde and 35% HEMA) and, if deep preparation, an RMGI or other liner. The positive results of incorporating this concept into your practice rapidly becomes a reality. Your patients, you, and your staff benefit from this procedure. See *Clinicians Report* July 2023.

Proven Products: Glutaraldehyde 5%/HEMA 35%

- **G5**, Clinician’s Choice (lower cost)
- ★ **GLUMA Desensitizer**, Kulzer (original formulation)
- ★ **MicroPrime G**, Zest Dental Solutions (lower cost)

Diamonds/Burs: Crown and Tooth Preparation

CR Note: CR research has found lower-cost single-use diamonds are as effective as premium-priced multi-use diamonds.

Proven Products: Carbide Burs

- Various designs from the following companies:

– Brasseler USA	– Meisinger
– Dentsply Sirona	– SS White Dental
– Kerr	

Proven Products: Diamonds, Lower Cost (Single-Use)

- **Alpen**, Coltene
- **Dollar Diamond**, Dollar Diamonds
- ★ **NeoBur and NeoDiamond**, Microcopy
- **Optimum Disposable Diamond Burs**, Benco
- **Single-Use Diamonds**, Patterson
- **Solo**, Premier Dental
- **Spring Health Diamond**, Spring Health Products

Proven Products: Diamonds, Premium Prices (Multi-Use)

- **Diamond Burs**, Microdont
- **EdgeBur Carbides, EdgeBur Diamonds, and EdgeBur FG 330**, EdgeEndo
- **Komet Diamond**, Komet USA
- **Meisinger Diamond**, Meisinger
- **Midwest Diamond**, Dentsply Sirona
- **Peter Brasseler C-Series 330 FG and Peter Brasseler Series**, Brasseler USA
- **Two Striper**, Premier Dental

Diamonds/Burs: Operative, Small

Proven Products:

- **1/4- and 1/2-round (mechanical retention)**, Various Companies
- **329 and 330 shapes (conservative preps)**, Various Companies
- **830, 835, and various diamonds**, Komet USA
- **Fissurotomy Micro Burs (carbide)**, SS White
- **H1 and H2 round burs (carbide)**, Brasseler USA
- **Microdia Micro Diamond and various others**, Meisinger
- **NeoPrep (diamond)**, Kerr

Finishers/Burs

Proven Products:

- ★ **7406, 7801, and 7901**, Various Companies

Finishers/Polishers for Resin-Based Composite

Proven Products:

- **Composite Singles (COSI1)** (for anterior and broad surfaces), Meisinger
- ★ **DiaComp Intraoral Composite Polisher, Feather Lite Discs for anterior; Points, Knife-Edge Discs, Feather Lite Discs, and Cups for posterior**, Brasseler USA (best reusable system for both posterior and anterior)
- ★ **DiaComp Intraoral Composite Polishing Points, Knife-Edge Discs, Feather Lite Discs, Cups**, Brasseler USA (best posterior system)
- ★ **Enhance Finisher/Enhance PoGo**, Dentsply Sirona (best disposable system for both posterior and anterior)
- **EPITEX**, GC America
- ★ **Jiffy Natural Universal, Ultradent** (cost effective; best reusable system for both posterior and anterior)
- **Kenda Polishers**, Coltene
- ★ **Politip**, Ivoclar (cost effective)
- **Sof-Lex Finishing and Polishing**, 3M
- ★ **Super-Snap X-treme Discs, CompoSite Polishing Paste, and Buff Disc**, Shofu (best anterior system)
- **Top Finisher System**, Cosmedent



DUO Polishing Systems, Prosthodontix

Unique “diamond-bur shaped” polishing system designed for **better access and precise finishing and polishing of natural enamel and resin-based composite**.

\$15/DUO System

See also Clinicians Report October 2023

Glass Ionomer Restoratives

CR Note: Glass ionomers provide highest fluoride release for prevention and chemical bond to tooth structure preventing bacterial ingress.

Proven Products:

- ★ **EQUIA Forte**, GC America
- **IonoStar Plus**, VOCO
- **Ketac Universal Aplicap**, 3M

Handpieces, Non-Surgical

See also Clinicians Report April 2023: “High-Speed Electric Handpiece Attachments—2023”

CR Note: Electric handpiece attachments can experience serious overheating and burn the patient if used improperly.

- **Heating of the push button:**
 - Do not retract tissue or bump oral structures with the button during high-speed use.
- **Heating of the head and neck:**
 - Always use water spray at high speed which carries away some heat from the head.
 - Do not run for prolonged periods at highest speed. If necessary, slightly reduce maximum speed to prevent overheating.
 - Clean and lubricate attachment after each use to minimize wear and maximize service life.

Proven Products: Electric High-Speed Attachments (highest rated)

- **CA NOVA 1:5L MS**, Bien-Air (short length, small head/neck)
- **Forza M5**, Brasseler (light weight, short length, and small head/neck)
- **Midwest E Pro**, Dentsply Sirona (light weight, short length)
- **Synea Vision WK-93 LT S, W&H** (short length)
- ★ **Ti-Max nano95LS, Ti-Max Z85L, and Ti-Max Z95L**, NSK (light weight and small head/neck)
- **TORQTECH CA-5IF-O-UM**, Morita (small head/neck)

Proven Products: Electric Systems

- **ELECTROmatic**, KaVo
- **OPTIMA MCX Set**, Bien-Air
- ★ **Ti-Max and NLZ E Electric Micromotor System**, NSK (lower cost)

Proven Products: High Speed Air

- ★ **430SWL Torque LubeFree**, DentalEZ
- **557 ProStyle SF Lite SLC and LEGACY 5**, Lares Research
- **MASTERtorque**, KaVo
- **Maxso M200E**, Beyes Dental Canada (lower cost)
- **Midwest Stylus Plus**, Dentsply Sirona
- **Sterling XLR8 Plus**, Benco
- **Ti-Max Z880L**, NSK
- **Tornado**, Bien-Air



Swedent High Speed Handpiece, Swedent Wholesale

Low-cost high-speed handpiece with excellent five-port water spray and bright **LED light source**. Chuck design requires full seating of bur: place bur, depress chuck release again, and push bur further to fully seat.

\$149/Handpiece

See also Clinicians Report March 2023

Headlamps

Proven Products:

- **Various models from the following companies:**
 - DenMat
 - DentLight
 - Designs for Vision
 - LumaDent (lower cost)
 - Orascoptic
 - SurgiTel
 - Ultralight Optics
 - Univet



★ Omega Pro Headlight - Cordless Hybrid (Updated Proven Product), UltraLight Optics

Bright headlight with battery **conveniently designed to rest on user's neck** with hands free off and on switch. Improved buttons, stronger magnetic connector of light to battery pack, and five brightness levels including turbo mode for highest intensity.

\$895/Unit

See also Clinicians Report November 2023

Instruments and Accessories: Restorative

CR Note: The following unique instruments have been helpful for specific treatments.

Proven Products:

- CASI 3C and 3L (anterior sculpting), Aesthecon
- Contact Pro II (contact forming), C.E.J. Dental
- ★ Dr. Colonna Series (posterior placement), American Eagle Instruments (small diameter for narrow preps)
- IPC Carver, Various Companies
- ★ Microfill Composite Instrument, Gold (anterior sculpting), Almore International
- ★ OptraSculpt Next Generation (non-stick placement), Ivoclar
- ★ TN009 Multi-Function Composite Instrument, Garrison
- Trimax (contact forming), AdDent



HD Black Line Mirror, HuFriedyGroup

Mouth mirror with increased brightness, scratch resistance, and a **unique black carbon coating which reduced glare** and increased visibility for some clinicians.

\$48/Mirror

See also Clinicians Report May 2023



★ Microfil Composite Instruments (Proven Product), Almore International

Set of three special composite instruments **make shaping and contouring direct veneers better and easier.**

\$181/Set of 3 (\$60 Each)

See also Clinicians Report February 2023

Lasers

See Surgery, Oral and Maxillofacial on page 18

Magnification: Loupes

See also Clinicians Report November 2023: "Is It Time to Change to Ergonomic Loupes?"

Proven Products: Loupes

- Various models from the following companies:
 - Designs for Vision
 - Orascope
 - SurgiTel
 - Univet
 - Zeiss

Proven Products: Prism Loupes

- ★ Ergo Advanced, Univet
- ErgoDeflection, SurgiTel
- ERGOPRISM, LumaDent
- EVO Loupes, Hero Loupes
- Infinity VUE, Designs for Vision



★ Ergo Advanced, Univet

Ergonomic loupes with unique prism design **reduces neck strain and allows optics to be placed at the bottom of the lens** for a more direct line-of-sight view while promoting upright posture.

\$3,500–\$4,500/Loupe

See also Clinicians Report November 2023

Matrices/Wedges

Proven Products:

- 9-Micron Mylar Matrix, HO Dental Company
- AutoMatrix, Palodent Plus, and Wedgeguard, Dentsply Sirona
- ★ Composi-tight (various), NiTin Sectional Matrix System, and Fender Wedge, Garrison Dental
- Contact Matrix, Zest Dental Solutions
- Dual-Force Active-Wedges, Clinician's Choice
- Eon, Benco
- ★ Greater Curve, Brass Bands (Tofflemire type), Greater Curve
- ★ HD Matrix A and DC Series, Bioclear Matrix System (anterior anatomical contour)
- iMatrix, Pac-Dent
- Triodent V3 and WedgeGuard, Ultradent
- Triodent V3 and WedgeGuard, Triodent



Strata-G Sectional Matrix System (Updated Proven Product), Garrison Dental Solutions

New sectional matrix bands and rings provide **better flash control and marginal ridge form.** New wedges designed to help control flash.

\$699/Kit

See also Clinicians Report November 2023



TwinRing Universal (Updated Proven Product), Bioclear

Sectional matrix holding ring with **anti-slip, greater separation force**, and better fit to a variety of tooth types and shapes including short molars, short premolars, and primary teeth.

\$272/Pack of 2 Twin Rings (\$135.70/Ring)

See also Clinicians Report August 2023

Moisture Control/Isolation/Rubber Dam

Moisture Control Concepts:

- Dentapops, Primotec
- DRYDent Sublingual, Directa Dental
- DryShield, Solmetex
- HySolate Wedjets (secure rubber dam), Coltene
- ★ Isolite, Isodry, and Isolite Core, Zyris
- Microbrush DryTips, Young Specialties
- Mr. Thirsty One-Step, Zirc
- NeoDrys, Microcopy
- ★ OptraGate (small, regular, and junior), Ivoclar (easy, effective, anterior access)
- Perfect Cheek Retractors, Dental Creations
- SoftDry (Parotid PAD), Pac-Dent
- Umbrella Tongue, Lip, and Cheek Retractor, Ultradent



★ OptraGate (Proven Product), Ivoclar

OptraGate provides unsurpassed comfortable lip/cheek isolation, protection, and retraction. In junior and small sizes for children and regular and small for adults.

\$89/Box of 40 (\$2.23 Each)

See also Dental Hygiene Clinicians Report March/April 2023

Proven Products: Rubber Dam

- ★ **Hysolite/Hygenic Elasti-Dam and Hygenic Formed Non-latex FlexiDam** Coltene
- **Smart Dam (latex free), Cranberry**
- ★ **Traditional rubber dam, Various Companies**

**Pre-Framed Rubber Dam, Non-Latex, Henry Schein**

Pre-framed synthetic rubber dam with **no metal frame** is **convenient, easy to place, tear resistant**, and considered lower allergenic potential because of synthetic polyisoprene latex purity.

\$3/Pre-framed Dam

See also Clinicians Report November 2023

Resin-Based Composite Restoratives

See also Clinicians Report April 2023: “**The New Bulk-Fill Composites: What are they and where should they be used?**” and September 2023: “**Composite Complications: Predictable Solutions**”

CR Note: Dual-cure resins have added chemistry to help cure in deep preparations. However, in CR testing, additional light cure increased thorough conversion and cure for all dual-cure resins.

Proven Products: Dual-Cure

- **BulkeZ Plus, Zest Dental Solutions**
- **Fill-Up!, Coltene**
- ★ **HyperFIL, Parkell**
- ★ **LuxaCrown, DMG America**

**Filtek One Bulk, 3M**

Premium, packable, bulk-fill, **dual-cure resin-based composite (RBC)** that has 50% lower shrinkage deflection than control RBC, and thorough cure with auto-cure chemistry.

\$123/Twenty 2 g Capsules (~\$63.38/ml)

See also Clinicians Report April 2023

**★ HyperFIL DC, Parkell**

Lower-cost, flowable, bulk-fill, dual-cure resin-based composite (RBC) that has 50% lower shrinkage deflection than control RBC and a thorough cure with auto-cure chemistry.

\$105/10 ml Syringe (~\$10.50/ml)

See also Clinicians Report April 2023

Proven Products: Light-Cure

- **Aura, SDI**
- **CLEARFIL MAJESTY, Kuraray Noritake**
- ★ **Filtek Supreme Ultra Universal (8 shades), 3M (most used)**
- **G-aenial Universal Injectable and Kalore, GC America**
- **Harmonize, SimpliShade (3 shades), Kerr**
- **Mosaic, Ultradent**
- ★ **OMNICHROMA and ESTELITE sigma QUICK, Tokuyama** (OMNICHROMA original one shade)
- **Renamel NANO Plus and Renamel Microfill, Cosmedent**
- **TPH Spectra ST, Dentsply Sirona**
- **Tetric EvoCeram, Ivoclar**
- **Venus Pearl, Kulzer**

**G-aenial A'CHORD (Updated Proven Product), GC America**

The five shades of this resin-based composite match esthetics of 16 classic VITA shades. It has **natural looking results and fluorescence**.

\$466/Kit of 2.1 ml Syringes (5 Shades)
(\$44.38/ml)

See also Clinicians Report September 2023

**Transcend Universal Composite, Ultradent**

Resin-based composite with simplified shades and **no need for blocker or opaquer** for the universal body shade. Two enamel shades and four dentin shades available for layering of demanding esthetic anterior cases.

\$80/One 4 g Syringe (~\$45.71/ml)
\$43/Ten 0.2 g Capsules of the same shade (~\$48.39/ml)

See also Clinicians Report October 2023

Resin-Based Composite Restoratives: Flowables**Proven Products:**

- **BeautiFil Flow Plus and FIT SA, Shofu**
- ★ **Filtek Supreme Flowable Restorative, 3M (most used)**
- **G-aenial Universal Flo, GC America**
- **OMNICHROMA Flow and Estelite Universal Flow, Tokuyama**
- **SDR Flow+, Dentsply Sirona (low shrinkage stress)**
- **Tetric EvoFlow, Ivoclar**

Resin-Modified Glass Ionomer Restorative

See Pediatric Dentistry on page 7

Veneers, Direct Placement

See Restorative/Operative, Resin-Based Composite Restoratives on page 18 and Esthetic Dentistry on page 3

SLEEP MEDICINE

Gordon Tip #8: Involvement in dental sleep medicine should be our responsibility. Learning dental sleep medicine procedures requires some additional education, time, and money. But it is one of the activities that will excite you and your staff, will serve 40% to 50% of your patients, and help keep YOU increasing your interest and expertise in the profession.

SURGERY, ORAL AND MAXILLOFACIAL

See also Clinicians Report January 2023: “**Ridge Preservation (RP) at Extraction: Why and How**” and Clinicians Report February 2023: “**Socket Bone Graft without a Buccal Plate: How To Make It Work**”

Bone Grafting Materials, Membranes, and Harvester

CR Note: Where should I begin bone grafting—posterior or anterior?

- For GPs, the emphasis is on the posterior, single and multiple socket teeth. Molars with prominent root position may have a thin buccal plate requiring facial augmentation.
- Anterior teeth in the esthetic zone can be more technique sensitive. Facial wall is usually thin.
- After a dentist has mastered the concept of ridge preservation, many practitioners find other grafting situations will also be highly useful for their patients.

Proven Products: Allograft (human cadaver bone)

- **alloOss Particulate** (demineralized cancellous bone particulate), ACE Southern
- **DynaBlast** (demineralized cancellous bone), Salvin
- ★ **MinerOss Blend Putty**: putty blend (mineralized cortical and cancellous chips), BioHorizons
- ★ **Puros** (putty, demineralized freeze dried cortical/cancellous), ZimVie

Proven Products: Alloplast (synthetic, ceramic, polymers, composites)

- **Bio-Oss** (sterile, biocompatible porous bone mineral substitute), Geistlich
- **GUIDOR easy-graft** (100% synthetic, fully resorbable), Regenity Biosciences

Proven Products: Plugs and Membranes

- **Bio-Gide** (collagen membrane, resorbable), Geistlich
- **Cytoplast TXT-200 PTFE** (membrane) and **Cytoplast Titanium Reinforced Membrane** (PTFE with titanium), Osteogenics
- ★ **OraPLUG**, Salvin

Proven Products: Xenograft (cow or pig bone or cartilage)

- **Bio-Oss** (collagen and bone mineral substitute), Geistlich
- **Foundation** (atelo-based bovine bone), Morita
- **HeliPlug**, Integra LifeSciences
- **MinerOss XP** (highly porous anorganic porcine bone mineral matrix), BioHorizons
- **XenoGraft** (bovine bone), Straumann

Proven Products: Xenograft/Alloplast Combination

- **FulFill** (80% calcium phosphate granules combined with 20% bovine collagen), Salvin
- ★ **OsteoGen** (bioactive resorbable calcium apatite/bovine achilles tendon collagen matrix), Implants

Education, Oral Surgery

Gordon Tip: Removing teeth easily, rapidly, and relatively painlessly. Additional continuing education is required to become competent in the newer surgical techniques. You and your staff will be able to provide enhanced and better treatment, and your patients will benefit from many new concepts. See *Clinicians Report July 2023*.

Proven Products:

- ★ **Oral Surgery in General Practice** (video V4116) and **Extraction Techniques for the General Dentist** (video X4111), Dr. Gordon J. Christensen, PCCDental.com

Instruments**Proven Products:**

- **Various instruments from the following companies:**
 - Ace Southern
 - HuFriedyGroup
 - Integra LifeSciences
 - Karl Schumacher
 - Salvin

Proven Products: Elevators, Luxators, Proximators, and Forceps

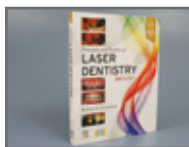
- **Apical Retention Forceps**, Various Companies
- **Magnetic Mallet** (innovative alternative to surgical mallets, chisels, osteotomes, elevators, and “skinny bur” osteotomy), Osseotouch from Dental Enterprises LLC
- **Various Elevators, Luxators, Proximators, and Forceps** from the following companies:
 - Directa Dental
 - HuFriedyGroup
 - Karl Schumacher
 - Salvin

Lasers, Hard Tissue and Soft Tissue**Proven Products: Hard Tissue**

- **Solea**, Convergent Dental
- **Various Models**, BioLase
- **Various Models**, Fotona

Proven Products: Soft Tissue

- **LightScalpel**, LightScalpel
- **Picasso Lite+**, AMD Lasers
- **US-20D**, DEKA



★ **Principles and Practices of Laser Dentistry**
(Updated Proven Product), Elsevier

Book on principles and practical use of lasers in dentistry by Robert A. Convissar, DDS. The **full-color illustrations** provide practical techniques for many areas of dentistry.

\$208/Book

See also *Clinicians Report September 2023*

**Hear it directly from Gordon and CR experts.
Attend a CR Dentistry Update course!
For details on upcoming courses,
visit CliniciansReport.org now.**

How Does CR Test Products?

Every year *Clinicians Report* publishes an annual guide listing many of the best products for the upcoming year **based on CR testing and clinical evaluations**. The products presented in this report have been through rigorous, independent, non-manufacturer-sponsored evaluation and testing. **CR conducts research at three levels:**

1. **Product evaluation** among 450 actively practicing dentists as clinical evaluators in their own offices worldwide.
2. **Basic science** laboratory testing in CR's extensive facilities and the CR Dental Test Clinic at the University of Utah.
3. **Controlled long-term clinical research** completed by TRAC Research, the human studies section of CR.

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Burs/diamonds, crown and tooth prep	15	Fixed prosthodontics, removable	9–13	Mini implants, small diameter	4	Composite, resin-based	18
Burs/diamonds, operative, small	15	Flowables, resin-based composite restoratives	18	Moisture control, isolation, rubber dam	17–18	Composite, resin-based, flowables	18
Burs/finishers	15	Fluoride dentifrice	8	Monitors, sterilizer	5	Glass ionomer	16
Cameras, intraoral video	2	Fluoride, silver diamine	7	Obturation	3	Instruments and accessories	17
Cements		Gingival restoration in-office	3	Occlusion	6	Resin-modified glass ionomer	6
Provisional	9–10	Gingival restoration laboratory fabrication	3	Operative diamonds/burs, small	15–16	Rinses, oral	8
Resin-modified glass ionomer	10	Glass ionomer		Oral and maxillofacial radiology	13–14	Root repair	3
Resin, adhesive	10	Cements, resin-modified	10	Oral and maxillofacial surgery	18–19	Rubber dam, moisture control,	
Resin, self-adhesive	10	Restoratives, resin-based	7	Oral hygiene, preventive dentistry	8–9	isolation	17–18
Resin, veneer	10	Restoratives	16	Oral rinses	8	Scalers, cures, hand	9
Ceramic etch, primers, cleaners for indirect restorations	12	Gloves, exam and surgical	5	Oral surgery education	19	Sealants	9
Ceramic finishers/polishers	11	Grafting materials, bone	18–19	Orthodontics	6	Sedation	2
Cervical desensitizers	8	Hand antisepsics	5	Orthodontic accessories	6	Self and team education	7–8
Cleaners, primers, ceramic etch for indirect restorations	12	Hand scalars, cures	9	OSHA, infection control, EPA compliance	4–6	Self-adhesive resin cements (no separate primer)	10
Cleaners, ultrasonic	6	Handheld units, radiography	14	Pain medication and medicaments	7	Sensors, digital, intraoral	14
Clear aligner systems	6	Handpieces,		Patient comfort	8	Shade taking	3
Clothing, protective	5	Implant surgery	4	Pediatric dentistry	6–7	Silver diamine fluoride	7
Coding, insurance	8	Non-surgical	16	Peri-implantitis treatments	4	Sleep medicine	18
Comfort, patient	8	Prophy, cordless	8–9	Periodontics	7	Small diameter implants (minis)	4
Composite restoratives		Hard tissue lasers	19	Pharmacology	7	Small diamonds/burs, operative	15–16
Resin-based	18	Headlamps	16	Pins	12	Soft tissue lasers	19
Resin-based, flowables	18	Hemostatic cord and soft tissue management	11	Polish, dentures	6	Soft tissue management and hemostatic cord	11
Cone beam	13	Hygiene, oral, preventive dentistry	8–9	Polishers/finishers, ceramics	11	Sterilizer monitors	5
Conventional diameter implants		Implants, conventional diameter,		Polishers/finishers, resin-based composite	16	Sterilizers	5
Titanium	4	Titanium	4	Polyether/PVS impression materials	12	Surface disinfection	5
Zirconia	4	Zirconia	4	Practice management	7–8	Surgery education, oral	19
Cord, hemostatic	11	Implants, handpieces	4	Preparation disinfection, desensitizers	15	Surgery, oral and maxillofacial	18–19
Cordless prophy handpieces	8–9	Implants, prosthodontics	4	Preventive dentistry, oral hygiene	8–9	Surgical gloves	5
Core build-ups and accessories	10	Implants, small diameter (minis)	4	Primers, cleaners, ceramic etch for indirect restorations	12	Surgical instruments	19
Crown and tooth prep,		Implants, surgery	4	Prism loupes	17	Systems, alignment	13
burs/diamonds	15	Impression materials, bite registration	12	Prophy handpieces, cordless	8–9	Team and self education	7–8
Crowns	11	Impression materials, PVS/polyether	12	Prophylaxis, prophy handpieces, cordless	9	Tissue management, soft and hemostatic cord	11
Curettes, scalars, hand	9	Impression trays and accessories	12	Prosthodontics, fixed, removable	9–13	Titanium implants, conventional diameter	4
Curing light radiometers	15	Impressions	11–12	Protection, eye	4–5	Toothbrushes	9
Curing lights, resin	15	Impressions, digital	12	Protective clothing	5	Topical anesthesia	2
Dam, rubber, moisture control, isolation	17–18	In-office gingival restoration	3	Provisional cements	9–10	Trays, impression and accessories	12
Dental and medical pharmacology	7	Indirect restorations, primers, cleaners, ceramic etch	12	Provisional materials	13	Treatment planning and diagnosis	2
Dental unit waterline validation	4	Infection control, OSHA, EPA compliance	4–6	Pulp capping	3	Treatments for peri-implantitis	4
Dentifrice, fluoride	8	Instrument disinfection	5	Pulp capping and bases/liners	14	Ultrasonic cleaners	6
Dentures	6	Instrument washers	5	Purification, air	4	PVS/polyether impression materials	12
Dentures, repair, rebase, reline, and polish	6	Instruments and accessories, restorative	17	RMGI cements	10	Veneer resin cements (with separate adhesive and light cure)	10
Desensitizers, cervical	8	Instruments, surgical	19	RMGI restoratives	7	Video cameras, intraoral	2
Desensitizers, preparation disinfection	15	Insurance coding	8	Radiography, cone beam	13	Washers, instrument	5
Diagnosis and treatment planning	2	Interproximal reduction	6	Radiography, handheld units	14	Waterline validation, dental unit	4
Diamine fluoride, silver	7			Radiology, oral and maxillofacial	13–14	Wedges, matrices	17

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