



Products “Real-World” Practitioners Use and Value Most

Gordon’s Clinical Bottom Line: During dental school, we were taught to use techniques and materials that our instructors thought were best. Currently, all of us use techniques and materials that we have personally found to be effective. The Clinicians Report® survey summarized in this article included all areas of dentistry, and you will see many well-known products listed. However, undoubtedly, there are other products in each category that are excellent but are not as popular. *This report identifies products that experienced, “real-world” practitioners use and value most. The survey results represent thousands of years of successful use in dental practice.*

The survey results in this article are undoubtedly many of the best products in dentistry. Compare these products with those you currently use. It will probably agree significantly with what you have already determined. For many years, Gordon has counseled manufacturers that for a product to be successful, it must be faster, easier, better, and less expensive than similar products currently on the market. Lack of any one or more of these four characteristics usually condemns the product. *The six products pictured here are the most reported products in this CR survey.*

The information in this report will help you to better treat your patients with confidence knowing that others also consider these products to be valuable and successful.

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Dexis Sensor



Root ZX and Root ZX Mini (pictured)



IPS e.max Press and CAD



Clinpro 5000+ and Prevident 5000



Midwest Handpieces, Midwest Stylus ATC (pictured)



Filtek Supreme Ultra

Smaller and Lighter LED Headlamps

Gordon’s Clinical Bottom Line: Magnifying loupes of 2.5X to 4.0X have become popular during my career, and they are in almost universal use. Coming along later has been headlamps which improve treatment by directing light along the line of sight, eliminating most shadows. Both loupes and headlamps have improved greatly over recent years. The major change is to smaller and lighter-weight devices. CR scientists have evaluated the latest models of “mini” headlamps. *Look over the data provided; you probably need and want a new headlamp.*

Headlamps are rapidly changing. Just a few years ago most lights sat on the countertop with a fiber optic tether to the clinician and were used almost exclusively for surgery. With the advent of white light emitting diodes (LEDs) which use less power and run cooler, the light source could be mounted directly on the loupes with a battery pack worn on the body. Significant activity in small, lightweight headlight development was stimulated by the introduction of the Featherlight headlight by Ultralight Optics. The future promises continued miniaturization and improvements.

Technical challenges include: generating high intensity output from a small, low-power light source; designing optics for a uniform and well-defined field of light; controlling and dissipating heat; and producing white light for natural-looking tissue color without the blue tint.

A recent user survey indicated that the most desired headlamp improvements were: 1) lighter weight, 2) lower cost, and 3) elimination of the cord. Since the last CR review of headlamps in May 2009, the average weight has dropped from 33 grams to only 11 grams, helping alleviate the greatest complaint. **The following report shows the characteristics of eight of the smallest, lightest-weight headlamps currently available.**

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Traditional surgical headlamp with fiber optic tether connected to halogen lamp



Early model LED headlamp, about 30 grams



Miniature LED headlamp, less than 10 grams



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Products “Real-World” Practitioners Use and Value Most (Continued from page 1)

Survey Protocol: Clinicians Report Board of Directors, Project Directors, Evaluators, and Leadership received a questionnaire asking for the products they use and value most. The products they reported are listed below in 15 major categories, followed by minor subcategories, and finally identifying the *most reported brand names in alphabetical order*. When many practitioners express the usefulness of products, the products have to be working well and providing better oral health care for patients. *Please remember that the specific products identified are mature products and that new products may be comparable or better.*

DIAGNOSIS AND TREATMENT PLANNING

Caries Detection Systems

CarieScan Pro, Cariescan,
www.cariescan.com

Diagnodent, Kavo, www.kavousa.com

Logicon, Carestream Dental,
www.carestreamdental.com

SoproLife, Acteon,
www.us.aceongroup.com

Spectra, Air Techniques,
www.airtechniques.com

Intraoral Cameras

Kodak 1500, Carestream Dental,
www.carestreamdental.com

SoproLife, Acteon,
www.us.aceongroup.com

Sunicam II, Suni Medical Imaging,
www.suni.com

USBcam, Schick Technologies,
www.schicktech.com

Magnification

Loupes,

Designs for Vision,
www.designsforvision.com

Orascope, www.orascope.com
Surgitel, www.surgitel.com



Current radiographs do not show initial interproximal lesions

ENDODONTICS

Apex Locator

Apex Locator Mini, Sybron Endo,
www.sybronendo.com

Formatron D-10, Parkell,
www.parkell.com

Root ZX and Root ZX Mini,
J. Morita, www.morita.com/usa

Endodontic Files and Motors (Rotary)

ProFiles and rotary motors,
Dentsply Tulsa,
www.tulsadentalspecialties.com

WaveOne Files and motor,
Dentsply Tulsa,
www.tulsadentalspecialties.com

Filler or Sealer

EndoRez, Ultradent,
www.ultradent.com

Gutta percha, various companies

Guttacore, Dentsply Tulsa,
www.tulsadentalspecialties.com

Resilon, various companies



Significant controversy on best endodontics

ESTHETIC DENTISTRY

In-Office Direct Restorations

Estelite Σ Sigma Quick,
Tokuyama, www.tokuyamausa.com

Esther•X HD, Dentsply Caulk,
www.dentsply.com

Filtek Supreme Ultra, 3M ESPE,
www.3mespe.com

Herculite Ultra, Kerr,
www.kerrdental.com

Renamel Microfill, Cosmedent,
www.cosmedent.com

In-Office Indirect Restorations (for CEREC and E4D)

IPS e.max CAD, Ivoclar Vivadent,
www.ivoclarvivadent.com

Lava Ultimate, 3M ESPE,
www.3mespe.com

Vitablocs TriLuxe, Vident,
www.vident.com

Lab-Fabricated Restorations

IPS e.max Press/CAD, Ivoclar
Vivadent, www.ivoclarvivadent.com

IPS Empress Esthetic, Ivoclar
Vivadent, www.ivoclarvivadent.com

Whitening

Dash/NiteWhite, Philips,
www.philipsoralhealthcare.com

Opalescence, Ultradent,
www.ultradent.com



Direct resin veneers at 2 years

IMPLANT DENTISTRY—PROSTHODONTIC

Attachments/Abutments

Atlantis, Astra Tech, www.astratechdental.com

ERA, Sterngold, www.sterngold.com

GPS, Implant Direct, www.implantdirect.com

Locator, Zest Anchors, www.zestanchors.com

MDI O-Ball, 3M ESPE, www.3mespe.com

ORS, Attachments International, www.implantdirect.com



Mini implant supported dentures becoming state-of-the-art

IMPLANT DENTISTRY—SURGICAL

Implant

Biomet 3i, www.biomet3i.com

Implant Direct, www.implantdirect.com

Nobel Biocare, www.nobelbiocare.com

Straumann, www.straumann.com

3M Implant, www.3mespe.com

Zimmer, www.zimmerdental.com

Implant Surgical Motor and Handpiece

AEU-7000E-70V, Aseptico, www.aseptico.com

W&H Surgical Handpiece, W&H, www.us.a-dec.com

Torque Wrench

Torque Wrench, Salvin, www.salvin.com



Healthy person + good bone = simple procedure

Products “Real-World” Practitioners Use and Value Most (Continued from page 2)

OCCLUSION

Articulators and Facebows

Panadent, www.panadent.com
Whip Mix, www.whipmix.com

Occlusal Marking Media

Accufilm II, Parkell, www.parkell.com
Madame Butterfly, Almore,
www.almore.com

Splints

Comfort H/S Bite Splints,
 Glidewell, www.glidewell.com
NTI-TSS Plus, Keller Lab,
www.kellerlab.com



Bruxers-clenchers need splints

OPERATIVE DENTISTRY

Etch

UltraEtch, Ultradent, www.ultradent.com

Handpieces, Electric and Air Driven

Kavo air and electric, Kavo, www.kavousa.com
Midwest Stylus ATC, Dentsply Professional,
www.stylusatc.com
Ti-Max NL 400, Brasseler, www.brasselerusa.com
 Variety of other air-driven handpieces

Liner

Fuji Lining LC, GC America, www.gcamerica.com
Vitrebond Plus, 3M ESPE, www.3mespe.com

Matrices

Composi-Tight, Garrison, www.garrisdental.com
Contact Matrix, Danville, www.danvillematerials.com
Greater Curve, Greater Curve, www.greatercurve.com
V3-Ring, Triodont, www.triodent.com

Restorative Materials/Adhesives

Clearfil SE Bond, Kuraray, www.kuraray-am.com
Esthet-X HD, Dentsply Caulk, www.dentsply.com
Filtek Supreme Ultra, 3M ESPE, www.3mespe.com
Herculite Ultra, Kerr, www.kerrdental.com
OptiBond XTR, Kerr, www.kerrdental.com
Scotchbond Universal, 3M ESPE, www.3mespe.com



Much confusion on bonding agents

ORAL AND MAXILLOFACIAL RADIOLOGY

Digital Radiography

CDR, Schick Technologies, www.schicktech.com
Dexis Platinum, Dexis, www.dexis.com
GXS-700, Gendex, www.gendex.com
Kodak RVG 6100, Carestream Dental,
www.carestreamdental.com
ScanX, Air Techniques, www.airtechniques.com

Panoramic

Belmont, www.takarabelmont.com
Gendex, www.gendex.com
Kodak, www.carestreamdental.com
Planmeca, www.planmeca.com
Soredex, www.soredex.com



Digital radiography = state-of-the-art

ORAL AND MAXILLOFACIAL SURGERY

Anesthetics

Lidocaine, various companies
Septocaine (articaine), Septodont, www.septodontusa.com

Collagen Plugs

CollaPlug, Zimmer, www.zimmer.com
OraPlug, Salvin, www.salvin.com

Elevators, Luxators, Periostomes, and Proximators

Karl Schumacher, www.karlschumacher.com
JS Dental, www.jsdental.com

Graft Materials

Bio-Oss, Geistlich, www.geistlichonline.com
BioPlant, Kerr, www.kerrdental.com
Foundation, J. Morita, www.morita.com/usa
Puros, Zimmer, www.zimmerdental.com

Hemostatic Agents

ActCel, Coreva, www.actcel.com
BloodStop, Life Science Plus, www.lifescienceplus.com
Bone Wax, Salvin, www.salvin.com



New and innovative concepts = better surgical procedures. Septocaine (articaine) is most popular local anesthetic.

ORTHODONTICS

Minor Tooth Movement

Invisalign, Align Technology, www.aligntech.com
Clear Correct, Clear Correct, www.clearcorrect.com
MTM, Dentsply Raintree Essix, www.essix.com



“Plastic” orthodontics very popular

PEDIATRIC DENTISTRY

Anxiety Management

Nitrous Oxide, various companies

Crowns

Stainless Steel Crowns, 3M ESPE,
www.3mespe.com

Restorative Materials

Fuji II LC, GC America,
www.gcamerica.com
Fuji IX GP Extra, GC America,
www.gcamerica.com
Ketac Nano, 3M ESPE,
www.3mespe.com
RIVA Light Cure HV, SDI,
www.sdi.com.au

Sealants

Clinpro Sealant, 3M ESPE,
www.3mespe.com
Delton, Dentsply Preventive,
www.dentsply.com
UltraSeal XT Plus, Ultradent,
www.ultradent.com



Better restorative materials for pedo

Products "Real-World" Practitioners Use and Value Most (Continued from page 3)

PERIODONTICS

Chlorhexidine Gluconate

Gum CHX Rinse (*Butler*), Sunstar Americas, www.gumbrand.com

Peridex, 3M ESPE, www.3mespe.com

Perioguard, Colgate Oral Pharmaceuticals, www.colgateprofessional.com

Laser

Variety of wavelengths of lasers; no most popular brand

Local Antibiotic Treatment

Arestin, OraPharma, www.orapharma.com

Atridox, Zila, www.zila.com

PerioChip, Dexcel Pharma, www.dexcel.com

PerioProtect, PerioProtect, www.perioprotect.com

Profound Topical Anesthetic

Oraqix, Dentsply Pharmaceutical, www.oraqix.com

Scalers and Air Polishers

Cavitron and Cavitron Jet Plus,

Dentsply Professional, www.dentsply.com

Gracey Curettes, various companies

Swivel XT, Hu-Friedy, www.hu-friedy.com



Still controversial etiology

PREVENTIVE DENTISTRY

Fluoride

Armour R_x (*varnish*), Massco Dental, www.masscodental.net

Clinpro 5000 (*dentifrice*), 3M ESPE, www.3mespe.com

Iris (*varnish*), Benco Dental, www.benco.com

Prevident 5000 ppm (*dentifrice*), Colgate Oral Pharmaceuticals, www.colgateprofessional.com

VarnishAmerica (*varnish*), Medical Products Labs, www.mplusa.com

Toothbrushes

Gum (*Butler*), Sunstar Americas, www.gumbrand.com

Oral-B Vitality & Professional Care, Procter & Gamble, www.oralb.com

Sonicare, Philips Oral Healthcare, www.philipsoralhealthcare.com



Senile caries: a major problem

PROSTHODONTICS—FIXED

Cements

FujiCEM, GC America, www.gcamerica.com

RelyX Luting Plus, 3M ESPE, www.3mespe.com

RelyX Unicem (*newest version*), 3M ESPE, www.3mespe.com

Gingival Retraction

Expasyl, Kerr, www.kerrdental.com

Roeko Stay-Put (*cord*), Coltene Whaledent, www.coltene.com

Traxodent, Premier Dental, www.premusa.com

Ultrapak (*cord*), Ultradent, www.ultradent.com

Impression Material Mixers

Pentamix, 3M ESPE, www.3mespe.com

Impression Materials

Aquasil Ultra Xtra, Dentsply Caulk, www.dentsply.com

Imprint 3, 3M ESPE, www.3mespe.com

Impression Trays

Quad Tray, Clinicians Choice, www.clinicianschoice.com

Triple Tray (*sideless*), Premier Dental, www.premusa.com

Indirect Restorations, Tooth Color

BruXZir, Glidewell, www.glidewell.com

IPS e-max Press/CAD, Ivoclar Vivadent, www.ivoclarvivadent.com

Lava (*zirconia-based*), 3M ESPE, www.3mespe.com

Interocclusal Recording Material

Blu-Mousse, Parkell, www.parkell.com

Porcelain Polish

Dialite, Brasseler, www.brasselerusa.com

DiaShine, VH Technologies, www.vhtechnologies.com

Posts

D.T. Light-Post, Bisco, www.bisco.com

FibreKleer, Pentron, www.pentron.com

Pressure Indicators

Fit Checker, GC America, www.gcamerica.com

Pressure Indicating Paste (PIP), Keystone Industries, www.keystoneind.com

Provisional Materials

Luxatemp, DMG America, www.dmg-america.com

Prottemp Plus, 3M ESPE, www.3mespe.com



An oral disaster



The rehabilitated patient

PROSTHODONTICS—REMOVABLE

Attachments

ERA, Sterngold, www.sterngold.com

Locators, Zest Anchors, www.zestanchors.com

MDI O-Ball, 3M ESPE, www.3mespe.com

Flexible Removable Partial Dentures

Flexite, Flexite, www.flexitecompany.com

Sunflex, Sun Dental Labs, www.sunflexpartials.com

Valplast, Valplast Int'l, www.valplast.com

Impressions

Impregum and Permadyne, 3M ESPE, www.3mespe.com

Triad Tray Material, Dentsply Prosthetics, www.dentsply.com

Quick Setting Stone

Snap-Stone, Whipmix, www.whipmix.com

Soft Reline

Perma Soft, Dentsply, www.dentsply.com



Implant supported partials, an effective procedure

Styptic

ViscoStat Clear, Ultradent, www.ultradent.com

CR Conclusions: Products that appear promising can be easily identified as they enter the market. However, a product that looked good at first may not be as good over a period of use as it originally appeared. This *Clinicians Report* contains the long-term opinions and observations of many CR Project Directors, Board of Director members, Evaluators, and leaders on their most valued and proven products. Basic science, in-vitro research, and short-term clinical use observations are mandatory for product introduction, but, as we have always said, long-term clinical observation is "the final test."

CE Self-Instruction Test—April 2012

“Clinical Success is the Final Test”

- 1 **Earn Up to 11 Credit Hours.** Receive 1 credit hour for successful completion of each month’s test (*January 2012 through November 2012*). This is a self-instruction program. CR Foundation is an ADA CERP recognized provider and an AGD approved PACE program provider.
- 2 **Complete Test.** Tests for each issue of *Clinicians Report*® are available online at www.CliniciansReport.org or by calling 888-272-2345.

CE Self-Instruction Test—April 2012 *Check the box next to the most correct answer*

1. Digital radiography is:
 - A. Difficult to accomplish
 - B. Less expensive than analog radiography
 - C. Considered to be state-of-the-art
 - D. None of the above
2. The most popular local anesthetic in dentistry is:
 - A. Lidocaine
 - B. Mepivacaine
 - C. Articaine
 - D. Prilocaine
3. Implant placement for healthy patients with good bone is:
 - A. A very difficult procedure
 - B. A very simple procedure
 - C. A simple procedure
 - D. None of the above
4. Bruxers and clenchers:
 - A. Are always male
 - B. Need occlusal splints
 - C. Are not commonly observed
 - D. Usually do not wear their teeth excessively
5. Senile caries:
 - A. Is always rapidly progressing
 - B. Is always slowly progressing
 - C. Is a major problem
 - D. Can be best restored with composite resin
6. Dentin bonding systems:
 - A. Are all the same
 - B. Are a very confusing subject
 - C. Always require total etching
 - D. Always eliminate postoperative tooth sensitivity
7. The most reported apex locator is:
 - A. Guttacore
 - B. EndoRez
 - C. Root ZX
 - D. Resilon
8. According to the headlamp user survey, which of the following was **not** one of the top three characteristics needing improvement?
 - A. Greater durability
 - B. Elimination of the cord
 - C. Lighter weight
 - D. Lower cost
9. Which of the following statements about headlamps is **true**?
 - A. All operate at cool temperatures, less than 37° C
 - B. All include a filter to prevent inadvertent polymerization of materials
 - C. All add less than 20 g of weight to the loupes
 - D. All have a fixed high intensity which cannot be adjusted
10. Which clinical tip regarding headlamp use is **false**?
 - A. Lightweight loupes and headlamps can make head/ neck bands optional
 - B. If the light must be touched while gloved, use a gauze pad
 - C. Use a filter to prevent premature cure while placing materials
 - D. Always use the maximum intensity setting

3 **Print Participant Information.** For additional participants, photocopy this page and list requested information.

Name _____ Email _____

Address _____ Phone _____

City _____ State _____ ZIP _____

Please send my tests results directly to the Academy of General Dentistry. (AGD# _____)

4 **Annual Enrollment Fee for 2012.** Select one: Payment Method: Visa MC AMEX Discover Check (*Payable to CR Foundation*®)

\$88 Clinicians Report Subscriber

\$108 non-subscriber

Already enrolled

Cardholder’s Signature _____ Exp. _____ CID _____

(Signature Required)

5 **Send your test answers and enrollment fee to: Clinicians Report**
 Fax: 888-353-2121 or Mail: 3707 N Canyon Rd, Bldg 7, Provo UT 84604

**To receive credit, all 2012 tests are due by
 December 15, 2012**

Smaller and Lighter LED Headlamps (Continued from page 1)

The following chart shows eight of the smallest LED headlamps. Numerous other brands and models are available and this technology is rapidly evolving. All technical measurements were made at 14 inches (35 cm) from the light and at highest output setting. Each company offers clips and mounts to make their headlamp compatible with most loupes and eyewear.

Product Photo								
Brand Company	Odyssey Micro LED Headlight: Neutral Color SurgiTel	MicroLine Mini Headlight PeriOptix	LumaDent LumaDent	Air Feather Light Ultralight Optics	Ultra Mini Designs for Vision	Zeon Endeavour Orasoptic	Nano Loupe Light Dentlight	Task Vision Lana LED Clip-On Headlight Vision USA
Cost/System	\$995	\$695	\$395	\$595	\$595	\$1,095	\$599	\$370
Total Weight added to loupes	9 g	11 g	13 g	8 g	15 g	11 g	11 g	12 g
Spot (Diameter at 14 inch distance)	9.0 cm	7.5 cm	8.0 cm	7.5 cm	8.0 cm	6.5 cm	5.0 cm	7.0 cm
Color Accuracy	Excellent–Good	Good	Good	Good	Good	Good	Good	Good–Fair
Intensity	1–12k lux	1–35k lux	6–28k lux	2–25k lux	11–35k lux	19–35k lux	15–35k lux	0–23k lux
Glare in Patient's Eyes	None	Moderate	Mild	Moderate	Moderate	Mild	Moderate	Substantial
Controls	Dial on/off/intensity	Switch on/off Dial intensity (retains last setting)	Switch on/off Dial intensity (retains last setting)	Touch switch on/off Button +/- intensity (retains last setting)	Dial on/off/intensity	Touch switch on/off/intensity (retains last setting)	Button on/off Button +/- intensity	Button on/off Dial intensity (retains last setting)
Battery Life*	7.5 hours -2.5 hr recharge	9 hours -4.3 hr recharge (includes 2 batteries)	9 hours -2.7 hr recharge	7.5 hours -3.3 hr recharge	7 hours -3 hr recharge	4.0 hours -3.2 hr recharge	2.5 hours -2.1 hr recharge (includes 2 batteries)	4.5 hours -3.0 hour recharge
Bezel Temperature*	53° C	41° C	41° C	51° C	40° C	38° C	66° C	43° C
User-Replaceable Cord	No	Yes, entire cord	Segment with battery connector	Segment with battery connector	Yes, entire cord	No	No	No
Orange Filter	Yes, removable	Yes, removable	Yes, removable	Optional, \$45	Yes, built-in	Yes, removable	Yes, removable	No
Warranty	1 year	1 year	2 years	2 years	Lifetime	4 years	1 year	1 year
Overall Grade	Excellent	Excellent	Excellent	Excellent–Good	Pre-production model	Excellent–Good	Excellent–Good	Good

* Battery life will be longer and bezel temperature lower if operating at a moderate intensity setting.

Clinical Tips

- **Intensity:** Headlamps with adjustable output and that retain the last setting are preferred. Best visual acuity is achieved with the intensity set just below what the eyes perceive as bright. Higher magnification requires more light.
- **Position:** Headlamps are generally positioned above the loupes (or eyes) to reduce reflected light (glare) while minimizing shadows.
- **Filters:** Flip-down filters block blue light to prevent premature cure while placing materials. If filter is not desired, simply turn off the light or aim it to the side during placement.
- **Infection control:** Headlamps and eyewear are contaminated by splatter and aerosols and are difficult to disinfect. If adjustments are needed, pick up a gauze pad and use it to grasp and aim the light, which also minimizes potential burning of the fingertips.
- **Head and neck bands:** Heavy loupes usually require a band that can be tightened to prevent them from slipping down the nose. Lightweight loupes with wrap-around frames and miniature headlamps seldom require the constrictive band.

CR Conclusions: LED headlamp technology has rapidly improved. All of the miniature headlamps evaluated provided good to excellent illumination and visualization of oral tissues with minimal added weight. All were easy to use, featured adjustable intensity, and provided adequate white light. Odyssey Micro Neutral Color received high ratings for tissue color accuracy, Air Feather Light had lowest overall weight, and LumaDent had good combination of low cost and features. All headlamps performed well and clinicians can base purchase decision on desired features, mounting options for their loupes, and cost. Most clinicians indicated that the combination of loupes and headlamps significantly improves the quality of care they can provide.