



Dental Hygiene Newsletter Reprint

CRA FOUNDATION®

Reprinted March 2005 with permission from Volume 5, Issue 1, January-February 2005, Pages 1 & 2

III POLISHING COMPOUNDS WITH NO ADDITIVES

CRA
CONFIRMED
USEFUL

Prophylaxis polishing compounds (prophy pastes) are used routinely by most dental hygienists for removal of stain & plaque, & for disruption of microorganism colonies located subgingivally & interproximally. Newest polishing abrasives are promoted as additive-free with no flavors, dyes, glues, oils, or fluoride. They are medium grit flour of pumice, & come packaged in popular pre-mixed unit-dose cups.

Following report:

- 1) Identifies 3 additive-free prophy pastes
- 2) Compares characteristics with 2 controls
- 3) Lists advantages & disadvantages
- 4) Summarizes with CRA Conclusions

1. Grits of 3 additive-free prophy pastes compared to 2 control polishing compounds

Nada Pumice Paste

Preventech
1150 Crews Rd. Suite H
Matthews, NC 28105
(704) 849-2416
(800) 474-8681
www.preventech.com

16c/cup



Pumice Preppies

Whip Mix
361 Farmington Ave.
Louisville, KY 40217
(502) 637-1451
(800) 626-5651
www.whipmix.com

30c/cup



Topex Prep & Polish Paste

Sultan Dental
242 South Dean St.
Englewood, NJ 07631
(201) 894-5500
(800) 238-6739
www.sultandental.com

24c/cup



Control Flour of Pumice

Available from various dental dealers. Typically purchased in bulk container & mixed prior to use.



Control Nupro

Dentsply Professional
1301 Smile Way
York, PA 17404
(717) 767-8500
(800) 989-8826
www.dentsply.com

25c/cup



2. Comparison of additive-free prophy pastes to 2 control products

- Scanning electron microscope (SEM) images of each brand's abrasive demonstrate a variety of particle sizes & shapes.
- All 3 test brands are classified as medium abrasive.
- All brands are abrasive & precautions need to be taken with use. When polishing is performed correctly it causes minimal damage to enamel but can damage dentin severely. (See Christensen, R.P. et al. J. Prost. Dent. Feb. '87.)
- All brands scratched soft dental materials such as composite resin restoratives & high gold alloys.

Surfaces of composite resin following polishing



SEM image of composite resin surface polished with composite polishing paste.



SEM image of composite resin surface polished with pumice paste. Similar scratches are evident with all brands tested.



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- Nupro (control) had a drier consistency & flour of pumice (control) can be mixed as desired. Consistency of all 3 additive-free pastes was different. Nada was described as moist paste, Preppies as doughy paste, & Topex as sticky wet paste (too fluid for 20% of Evaluators).
- Unit-dose packaging of all 3 additive-free pastes was similar to Nupro. Nada & Nupro were easiest to open, followed by Topex. Preppies cups were much more difficult to open, (50% of foil/plastic lids ripped & only partially opened) & 8% of the cups contained dry paste.
- Preppies & flour of pumice were easiest to rinse off & left no film. Nada & Topex also rinsed off easily & were nearly film free. Nupro left the most film & should not be considered for polishing tooth surfaces prior to bonding.
- All polishes quickly removed light stains.

3. Advantages & Disadvantages of additive-free prophyl pastes

All 3 brands of additive-free prophyl pastes shared similarly positive reviews by CRA Evaluator clinicians.

Advantages: 1) Polished quickly & removed stains effectively; 2) Convenient pre-mixed unit-dose cups; 3) Good consistency; 4) Low splatter; 5) No dispensing & mixing saves time & mess; & 6) Eliminates cross contamination.

Main disadvantage was cost.

4. CRA CONCLUSIONS

Pre-mixed unit-dose cups of medium grit pumice are a convenient alternative to mixing flour of pumice. Lack of flavors & other ingredients, & favorable use characteristics make Nada Pumice Paste, Pumice Preppies, & Topex Prep & Polish Paste ideal for patients sensitive to flavoring, dyes, & other additives.

What is CRA?

WHY CRA?

CRA was founded in 1976 by clinicians who believed practitioners could confirm efficacy and clinical usefulness of new products and avoid both the experimentation on patients and failures in the closet. With this purpose in mind, CRA was organized as a unique volunteer effort where clinicians worldwide unite their expertise for the sole purpose of testing all types of dental products and disseminating results to colleagues throughout the world.

HOW DOES CRA FUNCTION?

Each year, CRA tests in excess of 650 different product brands, performing about 20,000 field evaluations. CRA tests all types of dental products, including materials, devices, and equipment, plus techniques. Worldwide, products are purchased from distributors, secured from companies, and sent to CRA by clinicians, inventors, and patients. There is no charge to companies for product evaluations. Testing is performed by combined efforts of 400 clinicians in 16 countries who volunteer their time and expertise, and 40 on-site basic scientists, engineers, and support staff. Every product is subjected to at least 2 levels of CRA's unique 3-tiered evaluation process that consists of:

1. **CLINICAL FIELD TRIALS** where new products are incorporated into routine use in a variety of dental practices, and compared by clinicians to products and methods they use routinely.
2. **CONTROLLED CLINICAL TESTS** where new products are used and compared under rigorously controlled conditions, and patients are paid for their time as study participants.
3. **LABORATORY TESTS** where physical and chemical properties of new products are compared to standard products.

WHO FUNDS CRA?

Research funds come from subscriptions to the CRA Newsletter. Revenue from CRA's "Dentistry Update"™ courses support payroll for non-clinical staff. All Clinical Evaluators volunteer their time and expertise. CRA is a non-profit, educational and research institute. It is not owned in whole or in part by any individual, family, or group of investors. This system, free of outside funding, was designed to keep CRA's research objective and candid.



This team is testing the ability of handpieces to withstand routine heat sterilization. CRA has performed over 300,000 handpiece tests since 1990 to identify handpieces that cannot withstand the process.

THE PROBLEM WITH NEW DENTAL PRODUCTS.

New dental products have always presented a challenge to clinicians because, with little more than promotional information to guide them, they must judge between those that are new and better, and those that are just new. Due to industry's keen competition and rush to be first on the market, clinicians and their patients often become test data for new products. Every clinician has, at one time or another, become a victim of this system. All own new products that did not meet expectations, but are stored in hope of some unknown future use or thrown away at considerable loss.

CRA's motto is **"CLINICAL SUCCESS IS THE FINAL TEST."**