



MI Paste™ & MI Paste Plus™

the professional way
to **remineralize** and
rejuvenate teeth



Maximize Indications
Minimize Invasive Procedures

High Caries Risk Patients,
Xerostomia - Therapeutic, Orthodontic,
Post Bleaching, Oncology, Pediatric,
High Plaque/Special Needs



maintaining oral health through minimum intervention



Simple, yet effective, Minimum Intervention (MI) Dentistry is the modern medical approach to the management of caries.

MI features three guiding principles:

- **Identify** and assess any potential caries risk factors early
- **Prevent** caries by minimizing or eliminating those risk factors
- **Restore** the tooth and protect against further damage through the use of bioactive materials

These principles stand in direct contrast to the traditional “drill & fill” surgical method, which treats the symptoms of a disease rather than the cause.

Remineralization and Demineralization

The first step in designing a Minimum Intervention treatment program is identifying dental caries as a disease and the causes of demineralization. Dental caries requires a susceptible host and cariogenic plaque bacteria sustained by a high-sugar diet.

The bacteria ferments the sugars, producing acid, which lowers the neutral pH of the oral environment and attacks the enamel. This leaches out calcium and phosphate ions, causing demineralization that leads to destruction of the enamel subsurface and the start of decay, often seen as white spots.

Demineralization can result from:

- Cosmetic tooth whitening
- Excessive acid-producing plaque bacteria due to poor oral hygiene
- Bad dietary habits such as drinking excessive sodas and sports drinks
- Medications
- Xerostomia or conditions leading to reduced salivary flow
- Physical or psychological stress



The MI Paste™ & MI Paste Plus™ Family

MI Paste is a water-based, sugar-free cream that is applied directly to the tooth surface or oral cavity. It restores the oral mineral imbalances that cause demineralization by replacing minerals while improving saliva flow and fluoride uptake as well as soothing sensitive surfaces - making it an ideal treatment for:

- Reversing tooth sensitivity and restoring enamel gloss after whitening procedures
- Relieving dry mouth caused by certain medications
- Reducing high oral acid levels from excessive soft drink consumption
- Reversing tooth sensitivity before and after professional cleaning
- Reducing high oral acid levels - sometimes a consequence of pregnancy
- Buffering acids produced by bacteria and plaque
- Regular conditioning during orthodontics, during and after bands or brackets have been removed, to prevent and reverse white spot lesions
- Providing a topical coating for patients suffering from erosion, caries and conditions arising from xerostomia



Use MI Paste

- Before and after tooth whitening
- For pregnant women
- For children under six
- During and/or after orthodontics
- For desensitizing
- To provide extra protection for teeth



MI Paste Plus offers the same great benefits of regular MI Paste, enhanced with 0.2% sodium fluoride (900ppm) to further promote remineralization and protect teeth from caries development. Because the fluoride acts in conjunction with RECALDENT™ (CPP-ACP) ingredient, it is more effective than fluoride alone.

Specially designed for patients at high risk for dental caries and dental erosion, MI Paste Plus enhances mineral uptake without encouraging the formation of calculus. MI Paste Plus is safe and easy to use both in office and at home, and can even be claimed on a patient's insurance as fluoride treatment. It is also recommended for night use in patients with marked salivary dysfunction (dry mouth) due to medications, systemic illnesses, or salivary gland disease, because of the enhanced risk of mineral loss from dental caries or dental erosion.

Use MI Paste Plus

- After tooth whitening
- For white spot lesions
- For desensitizing
- During and/or after orthodontics
- For medically compromised patients
- For salivary deficiency/dry mouth
- For patients with acidic oral environments
- For erosion and gastric reflux
- For patients with poor plaque control
- For high-caries risk patients
- To provide extra protection for teeth



GC America - on the forefront of Minimal Intervention Dentistry

Saliva - Nature's Defense Against Demineralization



Normal Balance

Saliva naturally protects the mouth by maintaining a neutral pH environment.



Mineral Imbalance

When the saliva can no longer maintain the oral balance, acids can begin destroying tooth enamel.

Saliva is the body's natural oral defense system. It protects teeth and soft tissues, flushes bacteria and food away from the teeth and reduces enamel abrasion. Its buffering ability helps neutralize acids to restore normal pH levels and it replenishes the calcium, phosphate and fluoride ions that remineralize the enamel.

The oral cavity is in a state of remineralization or demineralization based on the pH level of the saliva. The buffering capabilities of healthy saliva, which contains calcium and phosphate, are essential for efficient remineralization. If the saliva is compromised, it loses its buffering capacity, and the oral environment shifts to a permanent state of demineralization, thus increasing the risk of caries.

Saliva-Check BUFFER

In-Vitro test for pH and saliva buffering capability

Saliva-Check BUFFER is an examination tool for educating patients, assisting in preventive treatment planning, and for initiating changes in oral hygiene and dental treatment plans. With Saliva-Check BUFFER you can diagnose the overall health level of the oral environment, customize to each patient to determine the condition contributing to clinical problems and design an appropriate prevention/remineralization program. Patients identified with saliva deficiencies will benefit from a treatment program that includes using MI Paste or MI Paste Plus.



GC Plaque Indicator Kit

Help educate patients on plaque cariogenicity, as well as demonstrating plaque location and acid production

The GC Plaque Indicator Kit is a chairside motivation test which helps educate patients on plaque cariogenicity and identifies plaque location and acid production in about 5 minutes! GC Plaque Indicator Kit contains two tests: a plaque indicator solution to determine the pH of plaque when subjected to a sucrose challenge and a plaque disclosing gel that will differentiate between fresh plaque (pink) adhering to the tooth surface and mature plaque (blue) - more than 48 hours old to aid in patient oral hygiene education.



GC Dry Mouth Gel

Providing comfort and relief for dry mouth sufferers

GC Dry Mouth Gel is recommended for patients experiencing difficulties in eating, speaking, or are suffering from discomfort due to dry mouth. GC Dry Mouth Gel provides a protective coating to the oral environment. It has a neutral pH and is sugar-free and alcohol-free. GC Dry Mouth Gel will not interfere with the action of fluoride products. Available in five delicious flavors.



MI Paste™ & MI Paste Plus™

can help **strengthen** your teeth...



PREVENT
Tooth Sensitivity



PREVENT
Whitening Sensitivity



PREVENT & REVERSE
White Spot Lesions

Easy 5 Minute Application



Apply At Home:

1. Brush with a fluoride toothpaste (1,000 ppm) in the morning
2. Apply a generous layer of MI Paste or MI Paste Plus to the tooth surface using a clean finger
3. Leave undisturbed for 3 minutes *(repeat up to 4 times a day)*



Apply In Office:

1. Extrude MI Paste or MI Paste Plus into custom tray
2. Seat in the mouth
3. Leave undisturbed for 3 minutes
4. Remove tray and spread remaining MI Paste over tooth surface with a gloved finger
5. Ask patient to avoid expectoration or swallowing for 2 minutes

No Matter Who You Are!



PREVENT

Caries Resulting from
Dry Mouth



PREVENT

Caries Resulting from
Sports Drinks



PREVENT

Caries Resulting from
Acid Reflux

Frequently Asked Questions

How fast does MI Paste/MI Paste Plus work?

The speed of their effectiveness depends on each individual's situation and specific clinical usage. For example, in a simple after-whitening procedure, relief should be possible within two minutes after application, while a five-minute application would suffice when used before or after ultrasonic prophylaxis or root planing. Reversing white spots will take 2-3 months of twice-daily, at-home applications.

Does MI Paste/MI Paste Plus play a part in Minimum Intervention Dentistry?

They fit perfectly with today's Minimum Intervention approach. MI Paste/MI Paste Plus restores the minerals that strengthen tooth enamel, reduces sensitivity and buffers plaque acid to create a healthy oral environment.

Can MI Paste/MI Paste Plus be used as a toothpaste substitute?

No. MI Paste/MI Paste should be used **in addition** to regular brushing with toothpaste.

Is MI Paste/MI Paste Plus safe for people with lactose intolerance and milk allergies?

The active ingredient, RECALDENT™ (CPP-ACP), is a milk-derived protein and should not be used by anyone with milk protein allergies. MI Paste/MI Paste Plus have a lactose content less than 0.01%. All other ingredients are safe to use.

How many times a day should MI Paste/MI Paste Plus be applied?

Apply twice daily after brushing with a fluoride toothpaste. If possible, leave any residual in the mouth overnight to provide additional protection.

What time of day is best for applying MI Paste/MI Paste Plus?

RECALDENT™ (CPP-ACP) works by binding to teeth, plaque and oral soft tissue, which then raises the salivary levels of calcium and phosphate. This means it works best at night when applied before bedtime since the salivary clearance rate is low while sleeping. For those undergoing more intensive treatment, an application in the morning and one at night is sufficient.

For more "frequently asked questions," visit www.mi-paste.com

assist the remineralization process with MI Paste™ & MI Paste Plus™

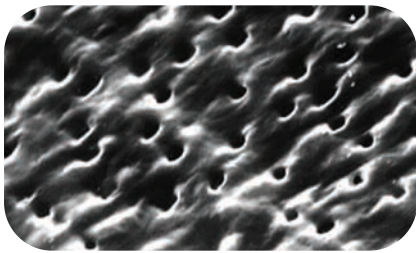
The Science Behind MI Paste and MI Paste Plus

Correcting mineral imbalance, or demineralization, is the newest preventive option and it's made possible with MI Paste products. MI Paste and MI Paste Plus are the only professional products to contain RECALDENT™ (CPP-ACP), delivering bio-available calcium, phosphate and fluoride when they're needed most, binding to tooth surfaces, plaque and surrounding soft tissue.

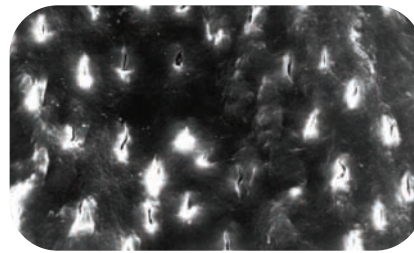
A complex of Casein Phosphopeptides (CPP) and Amorphous Calcium Phosphate (ACP), RECALDENT™ (CPP-ACP) delivers supercharged calcium and phosphate ions to the enamel to form calcium phosphate crystals.^{1,2,3}

With over 100 clinical studies since the 1980's⁴, RECALDENT™ (CPP-ACP) technology has been proven to bind readily to pellicle, plaque, soft tissue and even hydroxyapatite when applied within the oral cavity. This helps maintain a state of supersaturation of calcium and phosphate at the tooth surface, which depresses demineralization and enhances remineralization.

Further research has proven the effectiveness of RECALDENT™ (CPP-ACP) in preventing and reversing early caries lesions often seen as white spots.⁵

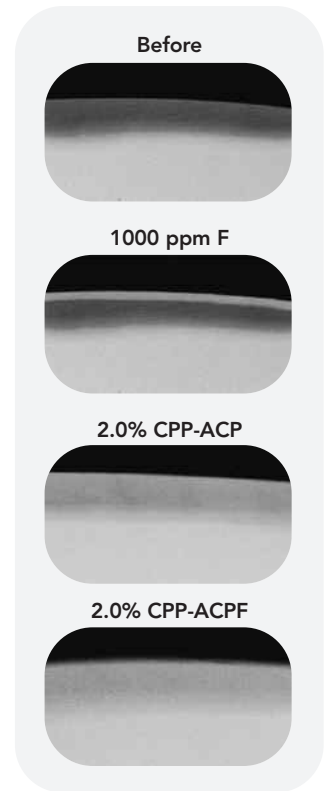


Demineralized Dentin

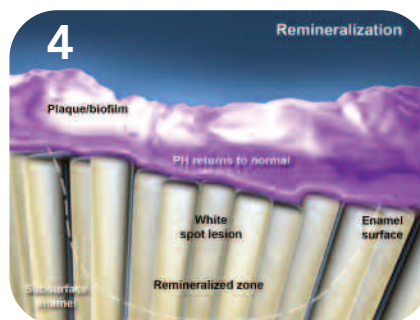
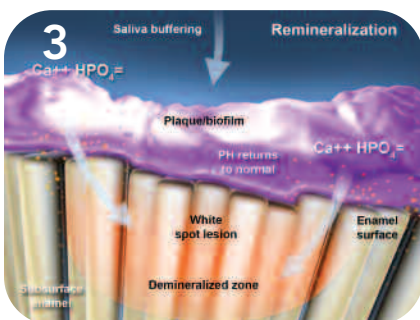
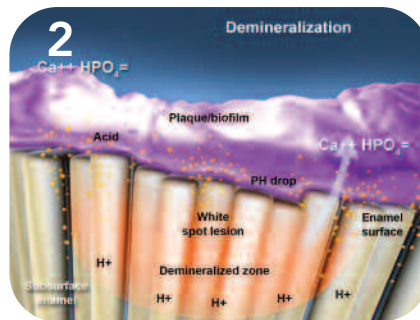
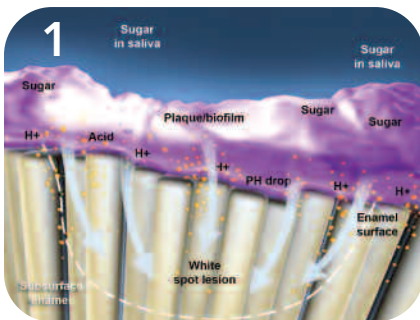


Remineralized Dentin after MI Paste Application

Prof. E. Reynolds



microradiograph - in situ testing, University of Melbourne



Figures and text courtesy of Dr. Steven Steinberg

The Remineralization Process

The Development of Caries is a dynamic process of demineralization of the dental hard tissues by acid products of bacterial metabolism alternating with periods of remineralization.

Figure 1: Bacteria in the plaque on the attacked tooth surface metabolize available sugar and produce acid. That acid (depicted in slide 1 as hydrogen ions) penetrate the solid, yet microscopically permeable tooth surface.

Figure 2: The acid drives calcium and phosphate out of the subsurface tissue, thus, demineralizing it. The result is an initial white spot lesion.

Figure 3: Since the tooth surface is in tact, the reverse biochemical process can occur. Saliva buffering can reverse the low pH in the plaque and with the raised pH calcium and phosphate are delivered back into the tooth.

Figure 4: Remineralization of the tooth. Key is integrity of tooth surface, if it remains in tact, uncavitated, remineralization is possible.

Restore: Minimum Intervention - Maximum Effectiveness

Whether caries damage can be restored after the identification stage or it occurs after taking preventive measures, the Minimum Intervention restoration process offers an entirely new approach that aims to restore and protect at the same time. MI Paste™ with RECALDENT™ (CPP-ACP) and MI Paste Plus™ with fluoride are biomimetic products, helping make this approach possible - and effective. Other products include restoratives such as Glass Ionomer Cements and Resin-Modified Glass Ionomer Cements, which have self-adhesive properties and also release fluoride continuously to remineralize dentin and enamel. Using Glass Ionomer restorative materials allows for a more conservative cavity preparation design, resulting in greater longevity for teeth in our patient population.



002265 MI Paste

Contains: 10 tubes of MI Paste (40g each), two tubes of each flavor (Melon, Mint, Strawberry, Tutti Frutti and Vanilla).

002614 MI Paste Plus

Contains: 10 tubes of MI Paste Plus (40g each), two tubes of each flavor (Melon, Mint, Strawberry, Tutti Frutti and Vanilla).

002621 MI Paste Plus

Contains: 10 tubes of MI Paste Plus (40g each), mint flavor only.

680707 MI Paste Marketing Kit

Contains: 5 easel backs, 25 patient leaflets, MI Paste protocol, clinical brochure, application tear pad and much more!

Available Literature

- 610107 MI Paste Patient Leaflets
- 650207 MI Paste Protocol & Comparison Chart
- 600707 MI Paste/MI Paste Plus Anthology of Applications
- 650207 White Spots Booklet
- 650112 MI Paste Application Tear Pad
- 620111 MI Paste Plus Sell Sheet
- 650111 MI Paste/MI Paste Plus Indications Poster
- 620113 GC Dry Mouth Gel Sell Sheet
- 620110 GC Plaque Indicator Kit Sell Sheet

002526 GC Dry Mouth Gel

Contains: 10 tubes of GC Dry Mouth Gel (40g each), two tubes of each flavor (Fruit Salad, Lemon, Mint, Orange and Raspberry).

900200 Saliva-Check BUFFER

Contains: 20 in-vitro test strips, saliva collection cups, wax for saliva stimulation, saliva dispensing pipettes and buffer test strips.

002444 GC Plaque Indicator Kit

Contains: Plaque Indicator Solution 3mL, Plaque Indicator Neutralizing Solution 3mL, Plaque Disclosing Gel 5g tube, Disposable dispensing dish 20 pieces, Disposable plaque collection instrument (40 pieces).

439990 GC Fuji TRIAGE® Pink Starter Package

Contains: 50 capsules (powder 0.30g, liquid 0.15g/0.12 mL per capsule), 1 Capsule Applier III, 1 Cavity Conditioner and 1 GC Fuji Coat LC.

001946 GC Fuji TRIAGE Pink Refill Package

Contains: 50 capsules (powder 0.30g, liquid 0.15g/0.12 mL per capsule).

439991 GC Fuji TRIAGE White Starter Package

Contains: 50 capsules (powder 0.30g, liquid 0.15g/0.12 mL per capsule), 1 Capsule Applier III, 1 Cavity Conditioner and 1 GC Fuji Coat LC.

002269 GC Fuji TRIAGE White Refill Package

Contains: 50 capsules (powder 0.30g, liquid 0.15g/0.12 mL per capsule).

Do not use MI Paste on patients with a proven or suspected milk protein allergy and/or with a sensitivity or allergy to benzoate preservatives. MI Paste Plus is not recommended for children under six.

RECALDENT™ (CPP-ACP) is a trademark of Recaldent Pty. Ltd. and is used under license. CPP-ACP refers to a complex of casein phosphopeptides and an amorphous form of calcium phosphate in which the CPP maintains/stabilizes the calcium and phosphate ions in an amorphous form without precipitation to insure the delivery of the ions into the tooth structure before they precipitate/crystallize.

¹Anticariogenic complexes of amorphous calcium phosphate stabilized by casein phosphopeptides: a review. Reynolds EC. Spec Care Dentist 1998 Jan-Feb 18:1-16. ²The role of phosphopeptides in caries prevention. Reynolds EC. Dental perspectives 1999 3:6-7. ³Caries prevention potential of a tooth-coating material containing casein phosphopeptide - amorphous calcium phosphate (CPP-ACP). Sato T, Yamanaka K, Yoshi E. IADR General Session, Goteborg 2003 - abstract 100. ⁴Remineralization of enamel subsurface lesions by casein phosphopeptide-stabilized calcium phosphate solutions. Reynolds EC. J. Dent Res. 1997;76:1587-1595. ⁵Anticariogenicity of tryptic casein- and synthetic-phosphopeptides in the rat. Reynolds EC, Cain CJ, Webber FL, Black CL, Riley PF, et al. J dent Res. 1995;74:1272-1279



SKU 600107

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