



GC America's
Preventive Line of Products

THE MI FAMILY

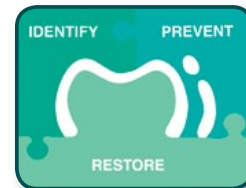
GC

WELCOME TO THE MI FAMILY



SIMPLE, YET EFFECTIVE

Minimum Intervention (MI) Dentistry is the modern medical approach to the management of oral disease.



MI features three guiding principles:

- Identify and assess any potential risk factors early
- Prevent disease 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 and fill” surgical method, which treats the results of disease.

TOUCHofGENIUS™

WHAT INDUSTRY LEADERS ARE SAYING



"RECALDENT™ (CPP-ACP) technology has transformed my practice!"

I use MI Varnish™ and MI Paste™ because RECALDENT™ (CPP-ACP) technology offers a natural and unique system for releasing bioavailable calcium, phosphate and fluoride into the saliva.

MI Varnish™ and MI Paste™ are an essential part of my practice."

- Dr. Pamela Maragliano-Muniz

- Over 140 publications, including 45 clinical and in situ trials on RECALDENT™ (CPP-ACP) technology.
- Textbook - *Preservation and Restoration of Tooth Structure*, Graham J. Mount, W. R. Hume, 2nd Edition 2005, pgs. 111-118, additional aids to the remineralization of tooth structure, Reynolds EC, Walsh LJ.

RECALDENT™ technology has been extensively researched by staff at the University of Melbourne Dental School since the 1980s. Below is a listing of some of the scientific publications validating this technology:



1. Reynolds EC, Cai F, Shen P, Walker GD. J Dent Res. 2003; 82(3): 206-211.
2. Mazzaoui SA, Burrow MF, Tjyas MJ, Dashper SG, Eakins D, Reynolds EC. J. Dent. Res. 2003 82: 914-918.
3. Iijima Y, Cai F, Shen P, Walker G, Reynolds C, Reynolds EC. Caries Res 2004; 38: 551-556.



Dr. Maragliano-Muniz



MI Paste™ & MI Paste Plus™

Choose MI Paste™ and MI Paste Plus™

MI Paste, MI Paste Plus and MI Varnish are the only products for professional use containing the active ingredient RECALDENT™ (CPP-ACP).

MI Paste is a water-based, sugar-free crème that is applied directly to the tooth surface or oral cavity. MI Paste with RECALDENT™ (CPP-ACP) releases vital minerals, as well as soothes sensitive teeth. MI Paste and MI Paste Plus are available in five delicious flavors – Strawberry, Mint, Melon, Tutti-Frutti and Vanilla.

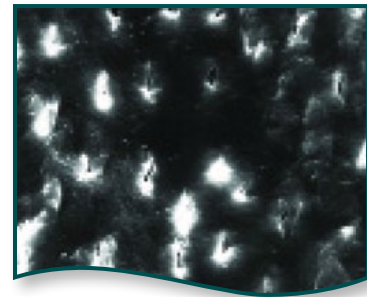
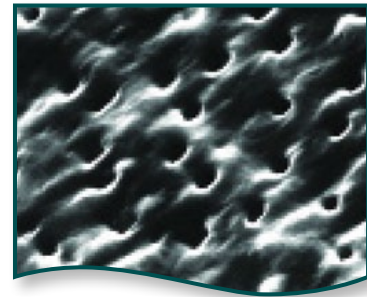
MI Paste Plus contains 900ppm fluoride (almost the same amount as regular fluoride toothpaste). MI Paste does not contain fluoride.

Calcium, Phosphate and Fluoride

The first step in designing a Minimum Intervention treatment program is identifying dental caries as a disease. 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 dental caries, often seen as white spots.

Demineralization can result from:

- Excessive acid-producing plaque bacteria
- Bad dietary habits such as excessive consumption of fermentable carbohydrates, sodas and sports drinks
- Xerostomia or conditions leading to reduced salivary flow



Electronmicrograph demonstrating occlusion of exposed dentinal tubules by CPP-ACP.

CPP-ACP relieves sensitivity within 3-5 minutes. Prof. E. Reynolds. Mount, G.J., Hume, W.R. (2005). *Preservation and Restoration of Tooth Structure (2nd edition)*. Queensland, Australia: Knowledge Books and Software.



The Science Behind MI Paste™ and MI Paste Plus™

What is RECALDENT™ (CPP-ACP)?

RECALDENT™ (CPP-ACP) contains Casein Phosphopeptides (CPP) and Amorphous Calcium Phosphate (ACP). Casein Phosphopeptides (CPP) are peptides derived from the milk protein casein that are complexed with calcium (Ca) and phosphate (PO₄). In this complex, the CPP maintains/stabilizes the Ca and PO₄ in an amorphous form (ACP) without precipitation.

How Does it Work?

RECALDENT™ (CPP-ACP) utilizes CPP peptides derived from the milk protein casein to maintain Ca and PO₄ in an amorphous form (ACP). CPP will bind to surfaces such as plaque, bacteria, soft tissue and dentin, providing a reservoir of **bioavailable** Ca and PO₄ in the saliva and at the surface of the tooth. The Amorphous Calcium Phosphate (ACP) is released from the CPP complex during oral acidic challenges. Stabilization of ACP by CPP ensures the delivery of Ca and PO₄ ions into tooth structure before they precipitate/crystallize.



MI Varnish™

"MI Varnish has the greatest acceptance rate of any product I have ever used. Patients love that it is not gummy, runny or leaves them with a bad taste in their mouth."
- Noel Brandon Kelsch, RDHAP





Choose MI Varnish™

There are many different fluoride varnishes on the market and it can be difficult to choose, for MI Varnish, the difference is in the RECALDENT™ (CPP-ACP), which makes MI Varnish a natural and unique choice for your patients. Casein phosphopeptides (CPP) naturally occur in milk. In the oral cavity, CPP binds to surfaces such as teeth, dentin, oral mucosa and biofilm. Calcium and phosphate ions are the building blocks for healthy teeth, and MI Varnish delivers bioavailable calcium and phosphate ions into the saliva.

Amorphous Calcium Phosphate (ACP), is the source of calcium and phosphate. MI Varnish is the choice fluoride treatment when compared to other varnishes (FIG 1).

MI Varnish with RECALDENT™ (CPP-ACP) enhances enamel acid resistance and boosts salivary fluoride levels. MI Varnish remains on the teeth longer than other fluoride varnishes with higher levels of fluoride and calcium released in the oral cavity (FIG 2).

Who Should Use MI Varnish™?

MI Varnish is ideal for all your at-risk patients. Fluoride is an important component and MI Varnish with RECALDENT™ (CPP-ACP) helps to make fluoride more bioavailable to gain that extra boost of protection from the calcium and phosphate.

Your Patients Will LOVE MI Varnish™

- Patient friendly “fresh” Strawberry and Mint flavors
- Smooth, creamy texture upon application
- No color change when applied to the tooth
- Film thickness comfortable to patient, even with multiple applications
- Is not tacky or sticky when applied

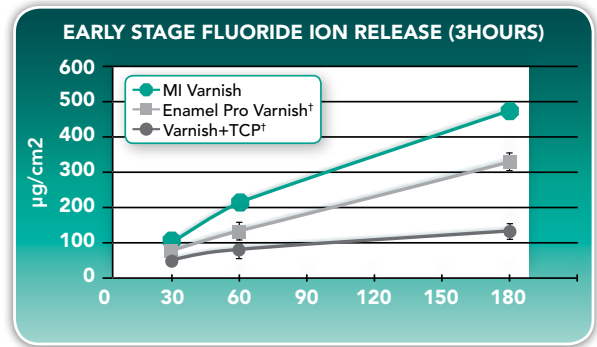


Fig. 1 • Source: GCC R&D



MAINTAIN STRONG HEALTHY SMILES FOR LIFE

Benefits of MI Varnish™

- Higher fluoride, calcium and phosphate ions released due to the RECALDENT™ (CPP-ACP) technology (FIG 2)
- Reduces sensitivity by sealing and penetrating dentinal tubules effectively blocking out external stimuli
- Flows easily into interproximal areas due to its low viscosity
- Non-clumping, white, natural translucent shade
- Excellent retention – stays on longer than the leading varnishes
- Unique unit dose, easy to open, easy to access varnish
- Generous volume per unit dose; enough for a full adult dentition
- Does not immediately clump upon exposure to saliva, allowing ease of use and longer working time
- Greater fluoride contact time and increased calcium and phosphate bioavailability than gels, foams and other varnishes
- Stands out on tray, easy to identify - brightly colored unit dose

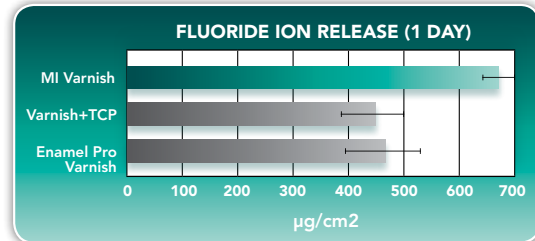


Fig. 2 • Source: GCC R&D



Loma Linda University School of Dentistry - Mission Trip to Honduras 2013





"MI Varnish flows very nice, not too thick and not too watery. It sticks to the brush very well and does not drip from the brush as you take it from container to tooth. As to the color of the MI Varnish, patients loved it, moms could not see it, kids not bothered by color."

- Lance Kisby, DMD – Chief of Pediatric Dentistry, Program Director,
Geisinger Medical Center



MI Varnish™
TOPICAL FLUORIDE VARNISH WITH CALCIUM AND PHOSPHATE
50 pcs Pack
0.55g (0.5mL) Unit-dose x50
Fresh Strawberry



CAUTION
RECALDENT™ is derived from milk casing.
Do not use individuals with a milk protein allergy.

'GC'
GC CORPORATION
TOKYO, JAPAN



MI Varnish™
TOPICAL FLUORIDE VARNISH WITH CALCIUM AND PHOSPHATE
50 pcs Pack
0.55g (0.5mL) Unit-dose x50
Fresh Mint



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GC CORPORATION
TOKYO, JAPAN

Varnish™
50 pcs Pack
MI Varnish
Fresh Mint



FLUORIDE VARNISHES: SIDE-BY-SIDE COMPARISON



When choosing a fluoride varnish, efficacy is critical, however, **patient satisfaction** is also very important when it comes to flavor and color. A fluoride varnish is applied on the tooth surface and your patients do not want to leave the office with a yellow-ish brown tint on their teeth.

The color of the fluoride varnish should blend in easily on the tooth when applied. A white, natural coloring increases the acceptance of the fluoride varnish treatment and opens the door for additional treatments in the future.

A fluoride varnish should be clinically transparent on the teeth. Comparison of the leading fluoride varnishes upon opening demonstrates the importance of color and a patient friendly reaction.



MI Varnish

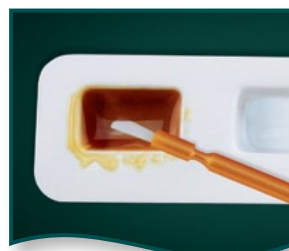
Your patients will love MI Varnish. MI Varnish flows easily. Its appealing white translucent shade *does not immediately clump* upon exposure to saliva allowing ease of use and longer working time. MI Varnish is clear when applied and flows easily into interproximal areas, due to its viscosity.



Competitor 1



Competitor 2



Competitor 3



Competitor 4



GC Fuji TRIAGE®

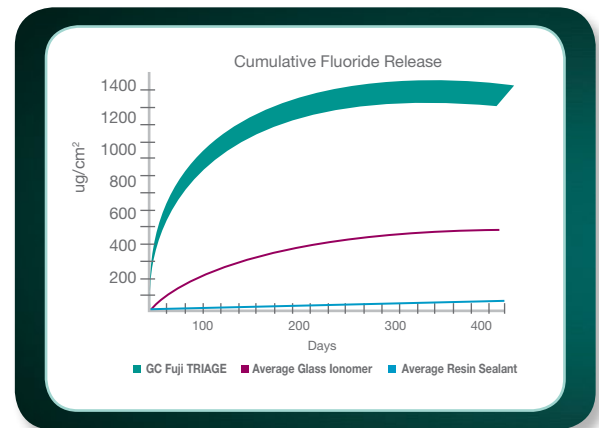
GC Fuji TRIAGE is not a typical radiopaque glass ionomer. It was designed to prevent fissure caries from developing in newly erupted molars during the first year. It is a high-fluoride-releasing glass ionomer with a free-flowing consistency to ensure effective wetting and intimate adhesion to tooth surfaces. This is especially important during the eruption phase when the occlusal surfaces of permanent molars are at most risk for decay.



Fluoride Release That Lasts

With its strong ionic bond and exceptional fluoride release (more than six times that of any other glass ionomer or resin^{1,2}), GC Fuji TRIAGE creates a fused layer that is acid-resistant and continues to offer protection to the occlusal surface even when it appears to have worn away.

- Releases six times more fluoride than other glass ionomers^{1,2}
- GC Fuji TRIAGE can be “recharged” by the routine use of toothpastes and fluoride treatments³
- Creates a strong, acid-resistant layer
- Calcium and phosphate ions help to strengthen the tooth
- Moisture tolerant bonding - requires no etching
- Excellent for endodontic access sealing
- Low viscosity - flows easily into small crevices
- Pink or white shade - easy identification



¹ Remineralization of bovine dentin in vitro: The influence of F content in solution on mineral distribution, Christoffersen, Rubin, Jongebloed, Caries Res 1989.
² Pit and fissure sealants, Current questions and techniques, CRA August 2002.
³ Data provided by the GCC Research Group.

ADDITIONAL PREVENTIVE PRODUCTS



Saliva-Check BUFFER

- Caries risk assessment tool that tests for pH, buffering capacity and overall quality of saliva
- A simple 10 minute test that can provide a better understanding of saliva characteristics
- Assists in preventive treatment planning and for initiating changes in oral hygiene and dental treatment plans



Saliva-Check MUTANS

- First chair side risk assessment test for rapid detection of higher levels of Streptococcus mutans
- Fast and easy – provides results in 15 minutes for high risk patients who have over 5×10^5 CFU/mL of S.mutans
- Uses a very specific immunochromatography process



GC Tri Plaque ID Gel™

- Innovative disclosing gel that identifies new, mature and acid producing biofilms in three different colors
- A chairside motivating test which helps educate your patients on plaque that remains on the teeth after brushing
- Immediate results



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.

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

The buffering capabilities of healthy saliva are necessary for oral health, and saliva delivers calcium and phosphate to the teeth. If the saliva is compromised, it loses its buffering capacity, and the oral environment shifts to one favoring oral disease.

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.

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

No. MI Paste/MI Paste Plus 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%.

Is MI Varnish gluten free?

Yes, MI Varnish is gluten free.

Are Fluoride Varnishes suitable for pre-school children?

Fluoride Varnish is the only in-office topical fluoride recommended for pre-school children.^

Can MI Varnish be used on patients with crowns and veneers?

MI Varnish can be applied to the margin area of the crown or veneers.

Is prophylaxis (cleaning) required before the application of MI Varnish?

MI Varnish does not require a prophylaxis treatment before application.

EASY TO APPLY



Squeeze a small amount onto finger.



Apply to teeth using finger to spread over all tooth surfaces.



Leave for at least 3-5 minutes. Expectorate (spit) but do not rinse. Leave the excess to slowly dissolve.

^Policy from the AAPD: http://www.aapd.org/media/Policies_Guidelines/P_FluorideUse.pdf



THE COMPLETE PREVENTIVE SYSTEM

IN OFFICE



AT HOME



GC

PACKAGES

MI Paste™

Contains: 10 tubes (40g each)

004505	Strawberry
003679	Mint
002265	Assorted (2 each: Vanilla, Strawberry, Mint, Melon and Tutti-Frutti)

MI Paste Plus™

Contains: 10 tubes (40g each)

002888	Vanilla
002886	Strawberry
002621	Mint
002614	Assorted (2 each: Vanilla, Strawberry, Mint, Melon and Tutti-Frutti)

GC Tri Plaque ID Gel™

004273	Contains: 1 GC Tri Plaque ID Gel Tube (40g)
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GC Fuji TRIAGE® Starter Package

Contains: 50 Capsules (powder 0.30g, liquid 0.15g/0.12 mL per capsule), 1 GC Capsule Applier, 1 GC CAVITY CONDITIONER and 1 GC Fuji COAT™ LC

439991	White
439990	Pink

GC Fuji TRIAGE® 50 Capsule Refill

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

001946	Pink
002269	White

MI Varnish™

Contains: 50 MI Varnish Unit-Doses (0.55g each) and 50 disposable applicators

004274	Fresh Strawberry
005265	Fresh Mint

GC Dry Mouth Gel

002526	Contains: 10 tubes (40g each). 2 tubes each: Fruit Salad, Lemon, Mint, Orange, and Raspberry
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Saliva-Check MUTANS

004504	Contains: 10 Test Kits (1 Mutans Testing Device, 1 Paraffin Gum, 1 Pipette, 1 Mixing Container, 1 2mL Bottle of Reagent #1, 1 4mL Bottle of Reagent #2)
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Saliva-Check BUFFER

900200	Contains: 20 In Vitro Strips pH 5.0-8.0, 20 Saliva Collection Cups, 20 Wax Gum Pieces for Saliva Stimulation, 20 Saliva Dispensing Pipettes, and 20 Buffer Test Strips
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