

V VARDIS

SWITZERLAND

BIOMIMETIC DENTAL SCIENCE



CURDONT™ REPAIR FLUORIDE PLUS

Anticavity Therapy via Guided Enamel Remineralization

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Thank you for your interest in Curodont™ Repair Fluoride Plus.

We are excited to work with you and have put together the following guide to introduce you to a new drill-free future!

We are here to support you and your team, so please reach out with questions at any time. Thank you!

Insert sticker with contact here

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Welcome to vVARDIS

Founded in Switzerland by Dr. Haleh and Golnar Abivardi and inspired by Dr. Green Vardiman Black's vision of a preventive future for dentistry, vVARDIS is the result of a combined 30 years of dental and entrepreneurial experience, and 20 years of laboratory and clinical research paired with the creative vision of its founders. At its Innovation Center in northern Switzerland, vVARDIS' team of scientists has been leading some of today's most advanced explorations in oral health.

Biomimetic Dental Science

vVARDIS combines breakthrough patented biomimetic dental technologies and cutting-edge science with the legacy of Swiss purity and precision.

Biomimetic Technologies

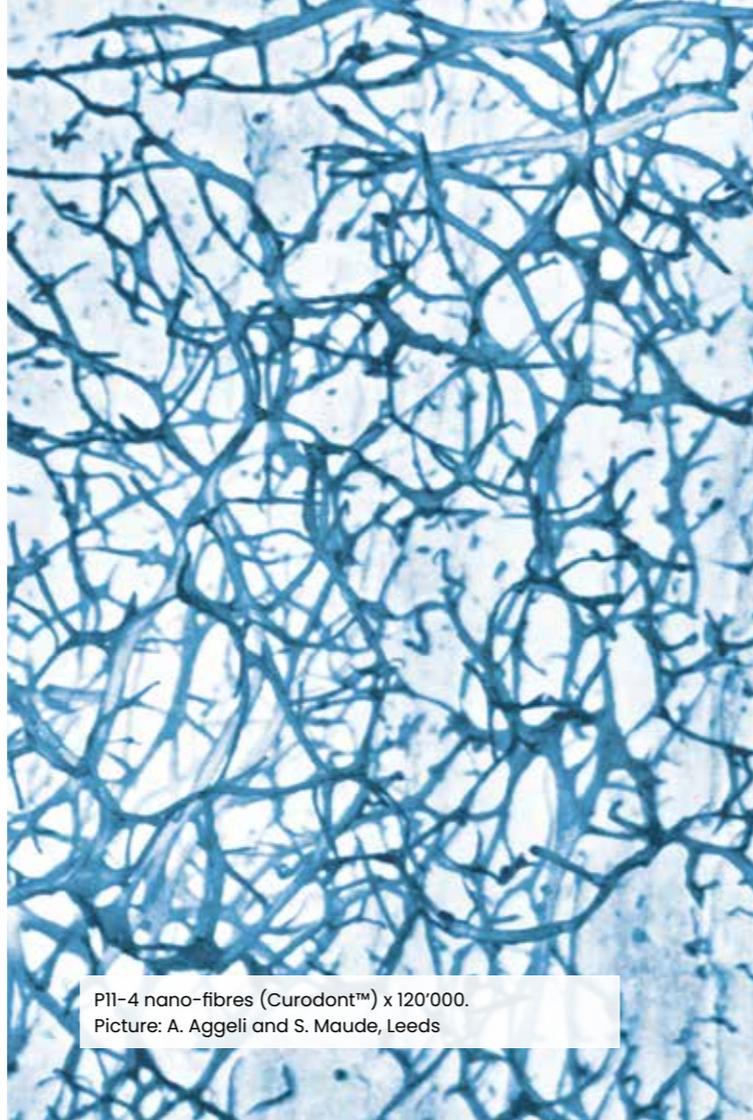
The biomimetic approach focuses on preserving the structure and function of your natural teeth first and foremost. Our technology provides guided enamel remineralization that allows the tooth to heal itself the way nature intended.

Our improved formula enables better delivery of fluoride to the tooth as such

1. Reaching greater depth of the lesion
2. Inactivating more than 80% of caries lesions vs 36% with FV alone 1 ref. to study

vVARDIS Technologies

The peptide can self-assemble into a biomimetic matrix using calcium and phosphate ions from the saliva. This matrix remineralizes enamel until the depth of early lesions and on the tooth surface. The peptide-based technology is incredibly versatile: it can be easily adapted into various formulations that can tackle caries and deliver a gentle teeth whitening.



P11-4 nano-fibres (Curodont™) x 120'000.
Picture: A. Aggeli and S. Maude, Leeds

Nature as a Model

Enamel is formed by the structured organization of hydroxyapatite crystals over a protein matrix. Once odontogenesis is complete, the enamel matrix is permanently degraded, and as a result, enamel cannot regrow or repair itself naturally.

Backed by over 20 years of research and development, vVARDIS technologies can penetrate deep into the enamel surface and foster remineralization using calcium and phosphate from saliva. For effective prevention and protection—both in the dental office and at home.

The vVARDIS technologies are incredibly versatile and have been easily adapted into various formulations that can tackle early caries, help protect from sensitivity and erosion, deliver a gentle natural whitening.

Guided Enamel Remineralization

Guided Enamel Remineralization (GER) tackles initial carious lesions. GER bridges the gap between prevention and invasive restorative approaches. It enables effective therapy of initial caries and white spots through in-depth remineralization of the enamel, whilst still maintaining the integrity of the tooth.

Healthy Tooth	Initial Caries	Cavity	
	Micro-Invasive Techniques	Fillings	Restorative Intervention
	GER with CRFP		Remineralization Therapy
	Prophylaxis		Prevention

Curodont™ Repair Fluoride Plus

Anti-cavity rinse for non-invasive prevention therapy. Curodont™ Repair Fluoride Plus has been developed specifically for dental professionals to enable the effective management of white spot lesions.

Curodont™ Repair Fluoride Plus helps to tackle white spot lesions, helps to repair enamel, and protects from cavities.

- Its patented technology remineralizes the enamel structure into the depth of the defect, preserving the tooth.
- Non-invasive, easy to use, and pain-free. Suitable for all patients, including children.

Anticavity Therapy for Guided Enamel Remineralization

Description

- Professional product, sold to dental professionals only.
- Box contains 10 units of ready-to-use applicators. One applicator can treat 1-2* lesions per patient. *2 lesions applies to adjacent interproximal lesions only

Ingredients

Sodium Fluoride, Water, Chlorhexidine digluconate, Tromethamine, Trehalose Dihydrate, Oligopeptide-104, Hydroxypropyl Methylcellulose

Drug Facts

Active ingredients	Purpose
Sodium fluoride 0.05%	Anticavity (0.02% w/v fluoride ion)

Use

- Aids in the prevention of dental cavities
- Anticavity dental rinse
- Restores enamel
- For the treatment of white spots

Warnings

Keep out of reach of children. If more than used for rinsing is accidentally swallowed, get medical help or contact a Poison Control Center right away. For topical intraoral use only. For Professional Office Use Only. This product is not intended for home or unsupervised consumer use.

Directions

Usual dosage is one treatment per tooth. After prophylaxis treatment, remove the pellicle of the concerned tooth by using 2% sodium hypochlorite for 20 seconds. Rinse the tooth surface with water. Remove inorganic deposits by using 35% phosphoric acid for 20 seconds. Rinse the tooth surface with water & dry the tooth surface. Activate product by pushing together the two cylinders and apply product with sponge on treatment area. After treatment time of five minutes have patient expectorate residues. For maximum benefits for the prevention of caries, instruct patient not to rinse, eat or drink for 30 minutes. For patients with rampant or active caries, repeat treatment once or twice every six months.

Other information

Do not use if safety packaging is broken or missing. Single use only. Store in a dry and cool place.

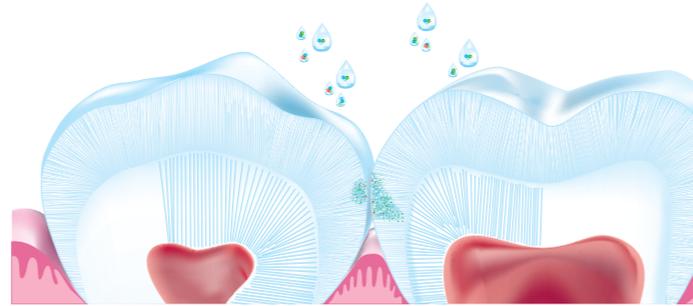
Inactive ingredients

Water, Chlorhexidine digluconate, Tromethamine, Trehalose Dihydrate, Oligopeptide-104, Hydroxypropyl Methylcellulose.

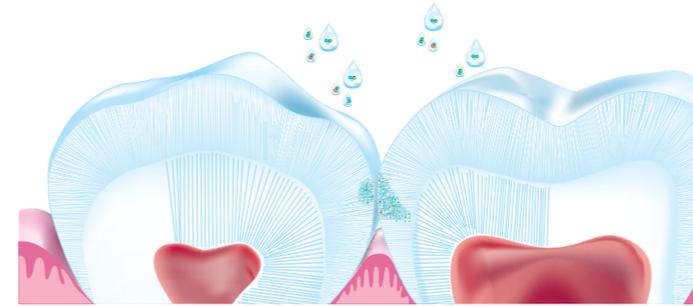


Mode of Action

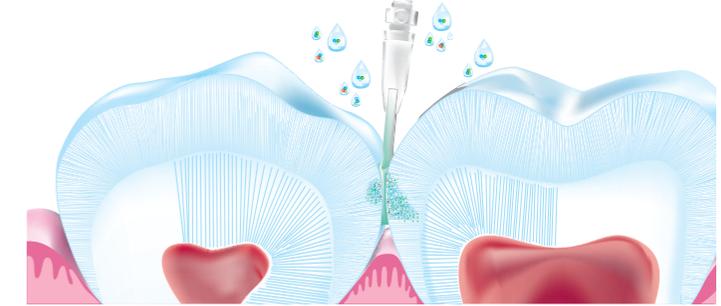
Curodont™ Repair Fluoride Plus brings fluoride where it is needed most—directly to early carious lesions and white spots. The formulation of the technology helps phosphate and calcium found in the saliva, to penetrate the enamel surface into the depth of the lesion. Lost enamel is re-hardened and remineralized over the following few weeks.



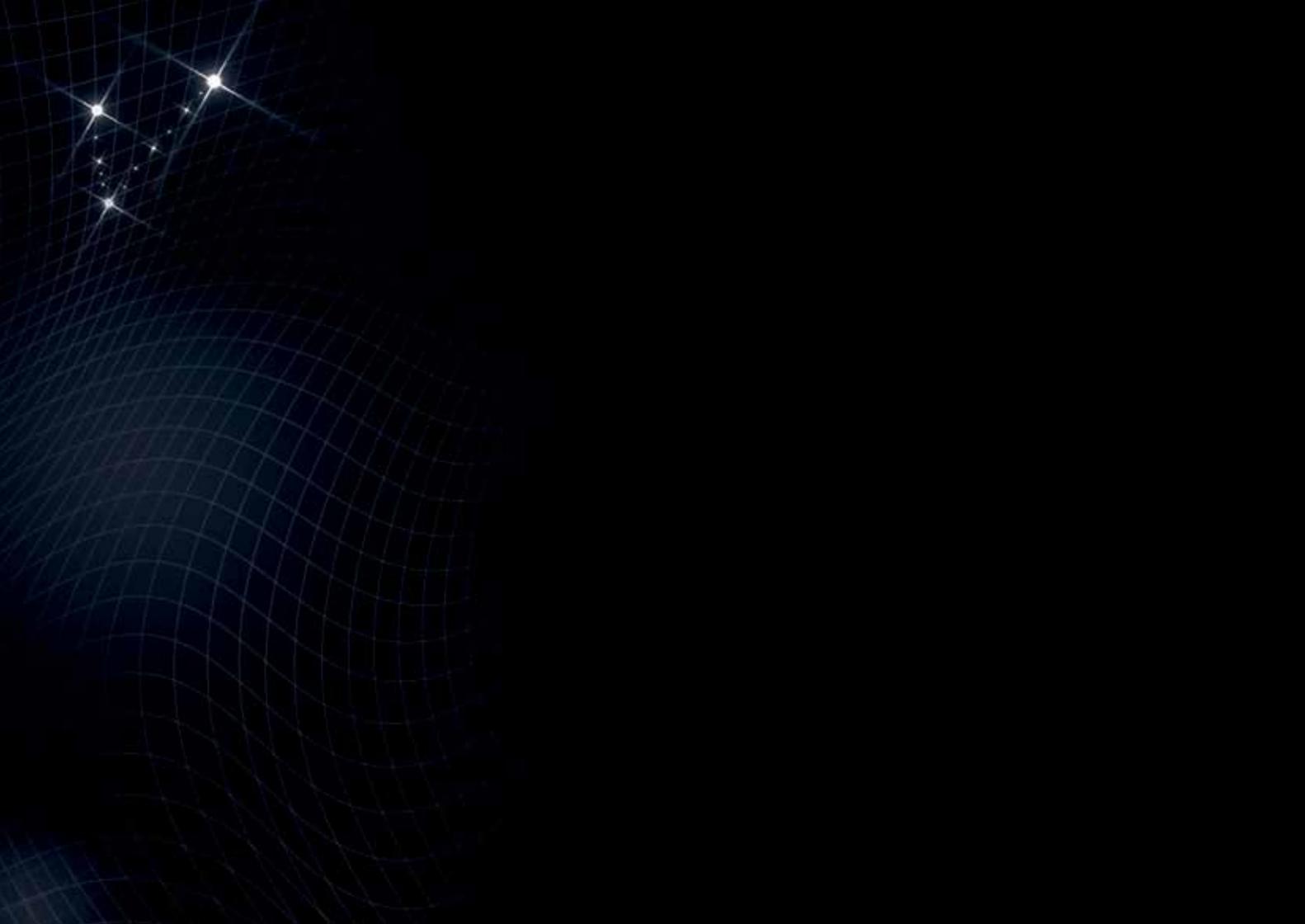
1. Natural caries protection In a healthy oral environment, saliva facilitates constant remineralization. Saliva is rich in calcium and phosphate. Fluoride actively supports this natural remineralization process and strengthens enamel.



2. Increased risk of caries. The constant acid challenge from bacteria inhibits the natural remineralization cycle and tooth minerals are lost. If demineralization cannot be stopped, enamel becomes porous (i.e. white spots). Targeted anti-caries measures are needed.



3. Curodont™ Repair Fluoride Plus applied directly onto the cleaned surface of the white spot Curodont™ Repair Fluoride Plus acts where it is needed. The application procedure help minerals, like fluoride and calcium, to penetrate the enamel surface into the white spots and to remineralize and re-harden the affected enamel over the next few weeks.



7 Easy Steps

1 ↓ Clean

2 ↓ Etch

3 ↓ Rinse

4 ↓ Dry

5 ↓ Activate

6 ↓ Apply

7 ↓ Keep Isolated

Workflow

1. Perform oral prophylaxis, especially in the area to be treated to eliminate any calculus/plaque/materia alba. (Figure 1)

2. Use cheek retractors and cotton rolls in the buccal and lingual vestibules adjacent to the lesion. Use of a rubber dam is optional.

3. Dip a small cotton pellet, in 2% sodium hypochlorite.

4. Use the saturated cotton pellet for 20 seconds to clean the lesion and remove the organic pellicle. (Figure 2)

5. Rinse with water.

6. Apply 35% phosphoric acid to the area in question for 20 seconds and then, rinse. Unwaxed dental floss may be used to distribute it in the interdental space. (Figure 3)

7. Gently dry the area to be treated.

8. Take one Curodont™ Repair Fluoride Plus applicator tip and press the sponge into the material. Withdraw the sponge and press it onto the lesion. For occlusal lesions, pressing the sponge is enough to distribute the material into the lesion; spreading it over the tooth is unnecessary. Use one applicator per lesion.

• N.B. for adjacent interproximal lesions, one applicator will suffice. (Figure 4)

9. Keep isolation for 5 minutes. After which, the patient can spit if needed, but not rinse.

10. Discharge the patient, instructing not to rinse, eat or drink for 30 minutes and maintain good oral hygiene.

Buccal/Lingual Caries

Occlusal Caries

Interproximal Caries

Figure 1



B: Incipient enamel lesion on the labial surface of the central incisor.

O: Incipient enamel lesion on the occlusal surface of a mandibular first molar.

I: Incipient enamel lesion on the proximal surfaces of a mandibular first and second molar.

Figure 2



Apply 2% sodium hypochlorite for 20 seconds to remove the organic pellicle. Rinse with water.

Figure 3



Apply 35% orthophosphoric acid for 20 seconds.

Figure 4



Apply Curodont™ Repair Fluoride Plus with the applicator tip, then wait 5 minutes.

Evidence

Curodont™ Repair Fluoride Plus shows proven visible results with re-mineralization and re-hardening of white spots.



Figure 1
Day 0: the white spot prior to application of CRFP.
Continual remineralisation shown throughout.
Fluoride varnish alone was applied on day 90.

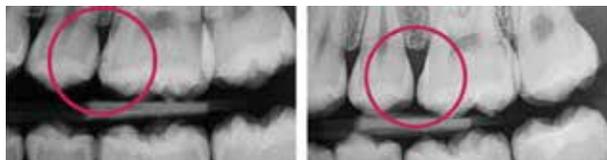


Figure 2
Radiographs before and after treatment, 10 months apart.

Remineralization of a Proximal Caries Lesion

Dr. Markus Schlee: Stomatologie 2014 (111); 175-181



Occlusal Caries

Dr. Frank Bröseler, 2012



Visible "Fading" of the White Spot Lesion

Dr. Frank Bröseler: Broeseler, F. Et al. Clin Oral Invest 2020; 24: 123-132



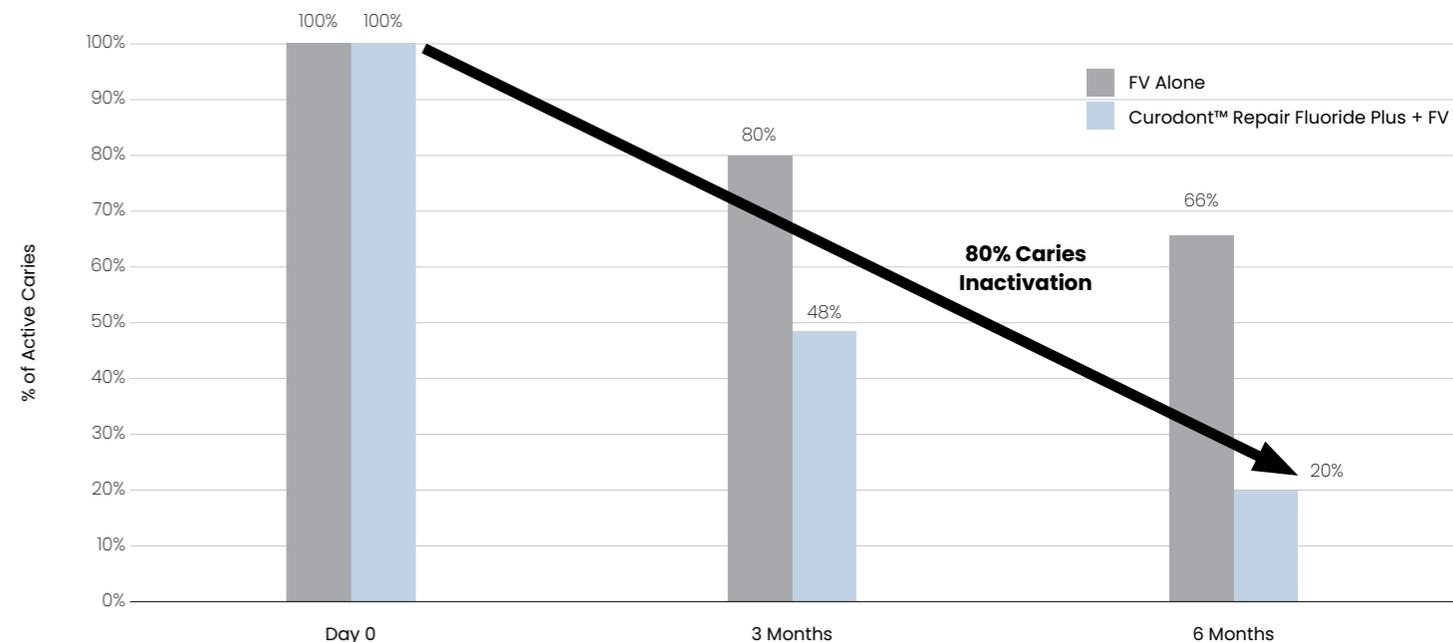
Scientific & Clinical Evidence

Curodont™ Repair Fluoride Plus (CRFP) technology alongside Fluoride Varnish demonstrates significantly superior inactivation and regression of early caries compared to Fluoride Varnish (FV) alone.

After 6 months, 80% of white spots treated with CRFP became inactive as opposed to only 34% of those treated with FV alone, as assessed by Nyvad Caries Activity Criteria.

Greater decrease in laser fluorescence readings (assessed using DIAGNODent), signifying greater white spot regression for treatment with CRFP compared to FV alone.

Caries Inactivation



Testimonials

“One of the most important factors that keeps patients from going to the dentist is fear. In my eyes, the vWARDIS collection, and in particular Curodont™ Repair Fluoride Plus, is a real revolution, to change this view of patients. That’s why I use them in my practice.”

–Dr. Justin Rashbaum, DMD

“Curodont™ Repair Fluoride Plus is a great brush on preventive treatment for tooth decay that does not require a needle, nor a drill, does not stain and does not taste bad.”

–Jeremy Horst Keeper
Director Clinical Innovation, CareQuest

Presenting CRFP to Your Patients: General Practices

“Wait-and-Watch” No More...

- Our non-invasive treatment is great for any patient with early, non-cavitated lesions
- Our technology can be used on any surface, including interproximal areas!
- Instead of the “wait-and-watch” approach for an early lesion to grow, use CRFP to stop and repair it at the first signs of breakdown

Patient Exchange Examples



“Mr./Ms. Patient, I noticed while I was doing your cleaning/ exam today some areas of concern.”
(show x-ray or give them the mirror or show IOC image to show lesion)



“I’m so glad you are here today; we found this lesion early enough that it can be repaired, if we wait to treat this now, we risk needing a filling by your next visit, which would require having to numb, drill and fill.”



“We can repair this right now with a new treatment called Curodont Repair Fluoride Plus that only takes about 5 minutes. This treatment naturally rebuilds the enamel without having to numb, drill and fill so we can preserve your natural teeth.” *(give brochure)*

*You can also explain the cost of a filling compared to CRFP and the benefits of minimally invasive treatment.

Presenting CRFP to Your Patients: Orthodontic Practices

Brackets & Clear Aligners

- Our non-invasive treatment is great for this patient population who are prone to the dreaded “white spots” around attachments and brackets
- Can be used while in active ortho treatment—no need to wait until treatment is complete to treat white spots
- Early detection and treatment of white spots around brackets can prevent the need for invasive future treatment

*You can also explain the cost of a filling compared to CRFP and the benefits of minimally invasive treatment.

Patient Exchange Examples



“Mr./Ms. Patient, I noticed while I was doing your (child’s name) cleaning/exam today some areas of concern.”
(show x-ray or give them the mirror or show IOC image to show lesion)



“I’m so glad you brought (child’s name) here today; we found this lesion early enough that it can be repaired quickly and painlessly without having to numb, drill and fill. If we wait, we risk the white spot getting deeper and needing a filling. This would require removing the decay with drilling and removing the brackets/attachments to fix this.”



“We can repair this right now with a new treatment called Curodont Repair Fluoride Plus that only takes about 5 minutes and doesn’t require us to remove the brackets/ attachments. This treatment naturally rebuilds the enamel without staining and has no bad taste!” (give brochure)

Pediatric Practices

Children & Teens

- Our non-invasive treatment is great for this patient population who might be especially fearful of needles, drilling or pain
- Great for children who can’t tolerate longer procedures—our treatment can be done in as little as 5 minutes
- Early tooth preservation is key in battling life-long oral health issues

Patient Exchange Examples



“Mr./Ms. Patient, I noticed while I was doing your (child’s name) cleaning/exam today some areas of concern.”
(show x-ray or give them the mirror or show IOC image to show lesion)



“I’m so glad you brought (child’s name) here today; we found this lesion early enough that it can be repaired quickly and painlessly without having to numb, drill and fill. If we wait, we risk needing a filling by the next visit.”



“We can repair this right now with a new treatment called Curodont Repair Fluoride Plus that only takes about 5 minutes. This treatment naturally rebuilds the enamel without staining and has no bad taste!” (give brochure)

*You can also explain the cost of a filling compared to CRFP and the benefits of minimally invasive treatment.

FOR PATIENTS AT HOME: vVARDIS

New White Enamel Serum

The vVARDIS Serum contains the highest concentration of the vVARDIS patented biomimetic Hydroxya-Peptide⁵⁰⁰ technology.

This one-week intensive treatment creates a new white enamel layer, which rejuvenates the enamel restoring its natural radiance, helping to prevent enamel erosion. The concentrated, peroxide-free formula is gentle on sensitive teeth and gums and effectively protects against stains and discoloration. It is safe and effective also on crowns, fillings and ceramic veneers, thanks to its high refractive index.

The mineral-rich layer smooths superficial irregularities recreating the silky-smooth feel just like after a professional cleaning and gives teeth a uniquely polished, shiny appearance. It is suitable for teenagers, vegan and completely fluoride-free.



FOR PATIENTS AT HOME: vVARDIS

Anti-Aging Oral Care

New White Enamel Anti-Aging Set

The vVARDIS set contains everything your patients need for a complete revitalizing daily oral care ritual. Its patented technology:

- Remineralizes, rejuvenates and strengthens the enamel
- Protects against caries, erosion and sensitivity
- Whitens teeth naturally and gives them a bright, polished finish and feel
- Is gentle on sensitive teeth and gums
- Leaves the mouth feeling clean, refreshed and revitalised

vVARDIS's prevention-oriented and sustainable oral care products empower and enable both patients and professionals to attain the best in oral health, while also caring for our planet.

Vegan and sustainably produced in Switzerland. Available in Soft and Strong Mint flavours.



New White Enamel Anti-Aging Dental Kit

Specially designed to serve as a complimentary offer for your patients, the dental kit includes the vVARDIS New White Enamel Anti-Aging Toothpaste in a trial 5ml format paired with our Enamel Caressing Wood Soft Toothbrush.

Thanks to its ergonomic design and soft bristles, it cleans gently and effectively, reaching the interdental spaces more effectively toothbrush. FSC certified Swiss beech wood, every toothbrush is numbered and can be traced back to its source tree.



FAQ

Q: What is Guided Enamel Remineralization?

A: Guided Enamel Remineralization (GER) is essentially a drill-free, anti-cavity concept where tooth enamel is remineralized.

Q: What is Curodont™ Repair Fluoride Plus?

A: Curodont™ Repair Fluoride Plus is a locally applied professional mouthrinse for the in-depth management of early caries. This revolutionary technology promotes the deposition of hydroxyapatite within carious lesions and stop the progression of incipient lesions.

Q: How does Curodont™ Repair Fluoride Plus work?

A: Curodont™ Repair Fluoride Plus's unique, award-winning formulation helps the fluoride and calcium found in saliva, to penetrate the enamel surface into the white spot. Lost enamel is remineralized over time.

Q: What are the indications for the use of Curodont™ Repair Fluoride Plus?

A: White spot lesions, enamel remineralization and

cavity prevention.

Q: Can Curodont™ Repair Fluoride Plus be used for all types of caries?

A: Curodont™ Repair Fluoride Plus can be used for tackling early demineralized lesions, like white spots, on all types of tooth surfaces. It cannot be used for cavitated lesions.

Q: How many times should Curodont™ Repair Fluoride Plus be used to bring about remineralization?

A: For each lesion, only one application of Curodont™ Repair Fluoride Plus is sufficient to bring about over a course of 4-6 months, provided the patient maintains good oral hygiene in this period. The remineralization may continue to increase thereafter.

Q: Is it safe to use in children?

A: Curodont™ Repair Fluoride Plus is safe to be used on children, under supervision. Regular dental appointments to detect caries in the earliest stages and their drill-free management using Curodont™ Repair Fluoride Plus is recommended.

Q: How long does it take to remineralize a lesion?

A: Natural enamel formation in primary and permanent teeth requires a few months to a few years, respectively. As Curodont™ Repair Fluoride Plus technologies essentially mimics nature in remineralizing enamel, it requires around 4-6 months to demonstrate discernible remineralization.

Q: Will white spots disappear completely?

A: When Curodont™ Repair Fluoride Plus remineralizes enamel within incipient carious lesions. Due to this, the white appearance of incipient caries treated with Curodont™ Repair Fluoride Plus may fade to a significant extent but may not completely disappear.

Q: Does the use of Curodont™ Repair Fluoride Plus preclude the use of fluoride or other substances promoting remineralization?

A: No. Curodont™ Repair Fluoride Plus can be used in conjunction with other remineralizing agents, such as fluoride varnish, to optimize enamel remineralization. However, all treatments should be carried out only after an interval of at least 5 minutes after the application of Curodont™ Repair Fluoride Plus and not before.

Q: What precautions does a patient need to take after Curodont™ Repair Fluoride Plus application?

A: Routine oral hygiene measures including brushing with fluoridated toothpastes twice a day must strictly be followed. Additionally, and especially, in cases with early caries on proximal surfaces, interdental flossing must be performed after meals to ensure the cleanliness of the area. Good oral hygiene maintenance is an essential pre-requisite for the success of any dental treatment.

Q: How is Curodont™ Repair Fluoride Plus different from resin infiltration?

A: Resin infiltration is a micro-invasive technology which aims to infiltrate the pores and microspaces of an early carious lesion with a low-viscosity, hydrophilic resin (tetraethyleneglycol dimethacrylate, TEGDMA). Resin infiltration fills the lost minerals with a foreign, plastic material. This is completely different to what Curodont™ Repair Fluoride Plus achieves by way of Guided Enamel Remineralization (GER); as the tooth is naturally made up of hydroxyapatite, GER restores the tooth to its natural, sound state. Moreover, the use of Curodont™ Repair Fluoride Plus does not require any special armamentarium, meaning the entire procedure can be completed within 8-10 minutes.

Q: Can Curodont™ Repair Fluoride Plus be applied more than once?

A: Although one application of Curodont™ Repair Fluoride Plus per lesion helps to promote remineralization, it can still be re-applied 3-6 months after the first application. As with all dental treatments, success is also determined on the good oral hygiene practices of the patient.

Q: Is the regenerative effect of Curodont™ Repair Fluoride Plus limited in time?

A: In-vitro studies have shown that Curodont™ Repair Fluoride Plus not only promotes enamel remineralization but also prevents from white spot lesions. Therefore, the regenerative effect of Curodont™ Repair on enamel is not limited in time.

*Kirkham J, et al. Self-assembling peptide scaffolds promote enamel remineralization. J Dent Res 2007;86:426-43s



“A healthy smile is not just the measure of a healthy body and spirit. It’s the foundation.”

*-Founders and Dentists,
Drs. Haleh & Golnar Abivardi*

V VARDIS

SWITZERLAND

BIOMIMETIC DENTAL SCIENCE

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