



By Bio Function

BIO Rehabilitation Restoration



Prof. Lorenzo Vanini
Prof. Camillo D'Arcangelo

For many years in the choice of the therapeutic protocols it has been given more importance to the << Literature Based Evidence >> than the << Clinical Based Evidence >>

Prof. Lorenzo Vanini

Many years of experience teach us that the medium and long-term results are the best evidence that we have to evaluate materials and technique, giving to the clinical aspect the same importance of the literature based evidence. Dentists besides reading the literature want to see a well-documented clinical proof that shows all the phases of the therapy, the positive results, the failures, and the long-term results.

Indications

With Bio Function also the red lights turn green!

1 Class III, IV, V Direct restorations

Class I, II Direct restorations

2

1 Partial and total veneers Diastema closure

Indirect restorations: Veneers

4

3 Indirect restoration: inlays, onlays, overlays

5 Metal-composite crown and bridge

Metal-composite prosthesis (Toronto bridge)

6

● **Health** is one priority in the modern society that nowadays is more looking for "Bio" products and treatments. It is defined as **Biocompatible** a material, a substance and a technique that has no harmful effects on the body which comes into contact

Clinical evidence teaches us that materials and invasive clinical procedures can have harmful effects on the mouth health and other part of the body.

For this reason we developed **Ena Hri Bio Function**,

a composite material that applied with non-invasive techniques, respecting the neuromuscular system, allows highly biocompatible treatments that we can call "Biorestorations" and "Biorehabilitations".

Prof. Lorenzo Vanini

THE COMPOSITE ENA HRI BIO FUNCTION

- It allows to save maximum dental tissue
- More resilient than ceramic
- Multipurpose material: it can be used in both anterior and posterior area, for small, medium and big size restorations
- For direct and indirect technique
- Lower cost than ceramic: it allows to treat also patient with limited economic resources
- Easy to repair
- Bisphenol free
- It contains aggregated nanoparticles that otherwise will be able to enter in the cell membrane
- Similar abrasion of natural enamel
- It guarantees aesthetics, function and biocompatibility



- Direct
- Biorestoration

1st Clinical Case

Biorestoration



Bio Functio

- Direct No-Prep
- Biorehabilitation



Biorehabilitation

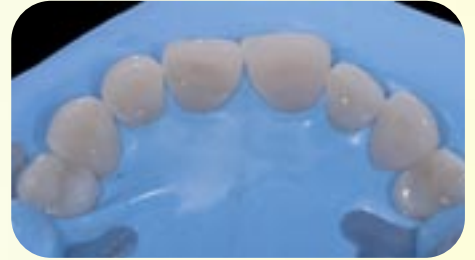
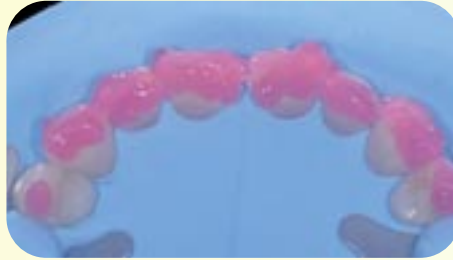
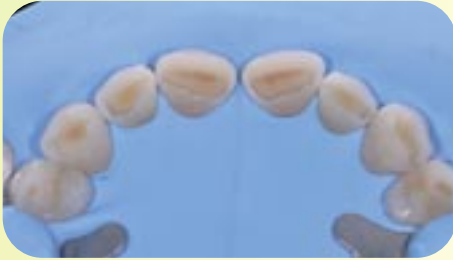
n Philosophy

● Direct No-Prep Biorestorations

○ in anterior high stress area

3rd Clinical Case

Biorestorations

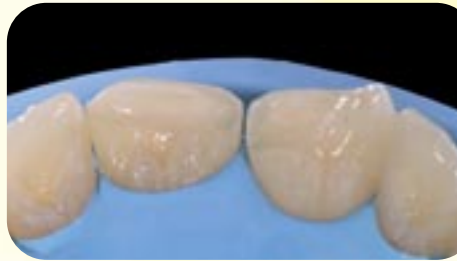
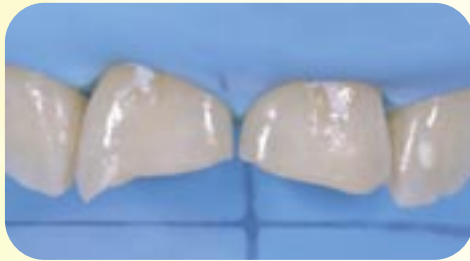
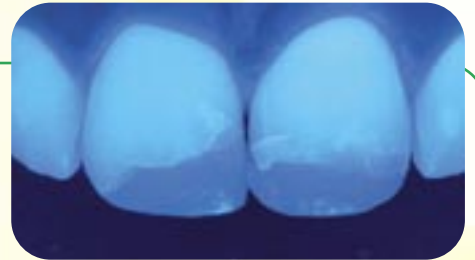


● Direct Biorestorations

○ in anterior high stress cavities

4th Clinical Case

Biorestorations



- Indirect
- Biorehabilitation



Biorehabilitation

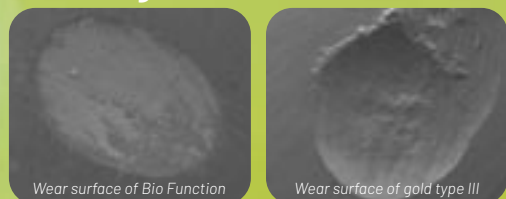


ENA  HRi[®]
BIO FUNCTION

Clinical evidence & Research

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SEM Images



Wear surface of ENA HRI Bio Function and Gold type III. The abrasion is very similar



ENA HRI Bio Function showing margin precision after years in the mouth

Material	Wear depth (mm)		Wear Volume (mm ³)		Antagonist wear (mm)	
Imagine Press X	0.301 B	(0.058)	0.536 B	(0.107)	(0.005) A	(0.001)
IPS e.max CAD	0.254 BC	(0.054)	0.351 CD	(0.091)	(0.005) A	(0.002)
Milled Celtra Duo	0.320 B	(0.063)	0.555 B	(0.093)	(0.004) A	(0.001)
Glaze-Fired Celtra Duo	0.280 BC	(0.051)	0.375 CD	(0.090)	(0.005) A	(0.002)
Vita Mark II	0.282 BC	(0.057)	0.475 BC	(0.110)	(0.005) A	(0.003)
Lava Ultimate	0.281 BC	(0.078)	0.456 BCD	(0.099)	(0.005) A	(0.002)
ENA HRI Bio Function	0.213 C	(0.052)	0.375 CD	(0.052)	(0.005) A	(0.002)
ENA HRI	0.458 A	(0.057)	1.002 A	(0.121)	(0.004) A	(0.002)
Filtek Supreme	0.456 A	(0.0298)	1.026 A	(0.115)	(0.006) A	(0.001)
Aurocast 8	0.216 C	(0.056)	0.327 D	(0.082)	(0.004) A	(0.002)

* Same letters does not indicate statistically significant differences (p>0.05).

Wear surface of different materials compared to Gold type III for onlay/overlay posterior restorations

F. De Angelis, C. D'Arcangelo, N. Maliskova, L. Vanini, M. Vadini. Oper Dent. 2020

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Bio Function is the material with an abrasion similar to gold

Wear of Bio Function and natural enamel after 5 years in the mouth. Surfaces are almost the same.



Bio Function natural enamel

Bio Function natural enamel

Kit Bio Function

BIS-GMA FREE VERSION
BPA FREE
NOT CONTAINS BISPHENOL-A



ENA HRI[®]
BIO FUNCTION

EHR12

KIT DENTIN & ENA HRI BIO FUNCTION 5 g

3 Bio Function enamel: BF1, BF2, BF3

9 Bio Function dentins: BDO, BDO,5, BD1 (A1), BD2 (A2),

BD3 (A3), BD3,5 (A3,5), BD4 (A4), BD5, BD6

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