

T SPECTRUM DENTAL Teamwork

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One Step Composites or Layering for Posterior Restorations?

Dr. Francesco Simoni

One-Step is synonymous with speed, convenience, but definitely not with aesthetics and high quality.

In conservative dentistry, as in all dentistry, thanks to new materials we can achieve results that until recently were unthinkable. The latest generation of composites, as described by Dr Lorenzo Vanini in his book published in 2003, meet the necessary needs of every dentist, being materials that are easier to use than ceramics with possibilities to correcting and repairing the restoration¹. In direct posterior restorations today there are many materials that can facilitate the work of the dentist the search for simplicity and speed is important, but but it is necessary to maintain high quality standards.

The importance of diagnosis

Fundamental for the clinician is the diagnosis and to do this it is important to perform a detailed radiographic examination (bite wings or radiographic status) and use magnifying systems.

Indispensable, as suggested by Giano Ricci in his book published in 2012, is to work on a healthy periodontium. Patients must be educated on oral hygiene methods and

should be trained in oral hygiene methods and have undergone either simple hygiene or non-surgical periodontal preparation². Another important aid to achieving optimal restorations is to photograph your cases. The analysis of static images allows us to study the details, enabling us to improve our results.

One-Step posterior composites such as Filtek Bulk Fill from 3M or SDR from Dentsply have improved over the years because they contract shortly after polymerization after and having a good adaptation to the conformation of the cavity they infiltrate less than in the past³.

One-Step is synonymous with speed, practicality but certainly not for and high quality aesthetics because they are more translucent materials and with an index of abrasion and compression far from that of natural enamel.

To address these biomechanical deficiencies and to allow the clinician minimal modeling, which is impossible with the One-Step technique, it is often recommended to adopt



Figure 1: Clinical image of carious lesions on the 26 and 27 occlusal



Figure 2: Complete removal of carious lesions and preparation of the two class I cavities

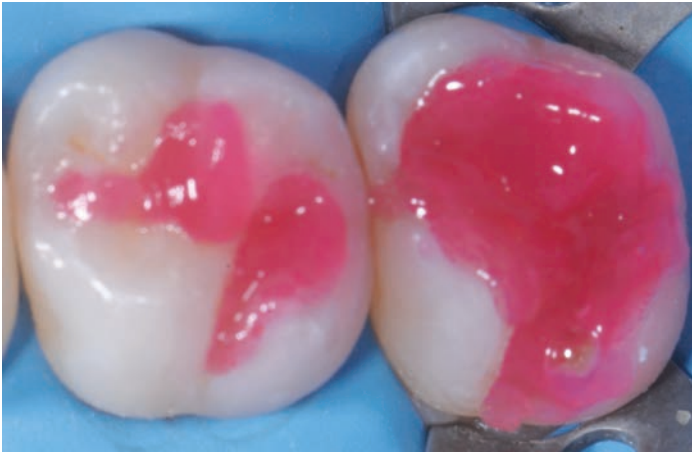


Figure 3: Etching for 30 seconds with orthophosphoric acid at 37%

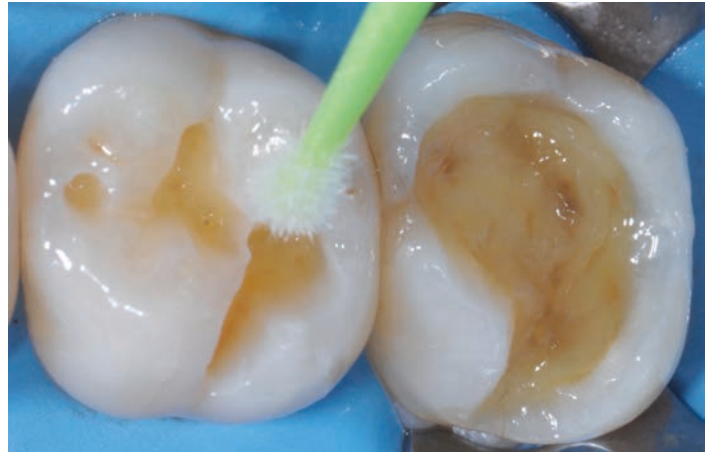


Figure 4: Apply with a brush the primer for 60 seconds and then the bonding for 30 seconds and then polymerize everything for 40 seconds. Then add ENASEAL for 30 seconds and polymerize.



Figure 5: Layer the universal dentin ENA HRi (UD3) Micerium, seeking a correct anatomy with the help of spatulas and brushes.



Figure 6: Occlusal view of the completed having used an enamel material ENA HRi BIO FUNCTION (EF2) Micerium and a dentin layer universal ENA HRi (UD3) Micerium

a Two-Step technique, where we use as a second layer traditional composite. Introducing a second step is biomechanical nonsense: using two materials in the same cavity with different mechanical behaviors is like driving a car with winter and summer tires.

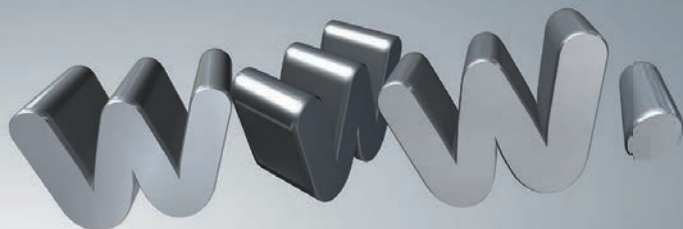
If you decide to opt for One-Step composites you have to do a single step, with the awareness of the limits of the material, because otherwise it is much better to use a traditional modeling which guarantees better aesthetics and quality. Whatever material is chosen, the use of a rubber dam is indispensable, just as it is fundamental to remove with care and attention to the carious tissue⁴. Once the After cleaning the cavity, to optimize adhesion it is suggested to polish well the enamel margins with a rubber polisher.

After polishing, the adhesive phases begin:

We recommend a Three-Step technique, which is still the best today, with etchant, primer and bonding agent⁵. In the adhesive phases it is fundamental to respect the times suggested by the companies and have a good polymerization lamp with a light intensity between 650 mW/cm² and 1200 mW/cm² and a wavelength between 310 and 500 nm. Adherence to the adhesive protocol is essential to eliminate post-operative sensitivity and to ensure a duration of the restoration without secondary caries. At the end of the adhesive phase, if you want a high quality and aesthetic and high-quality result, it is advisable to layer one or two layers of dentin and a two layers of dentin and one layer of enamel.

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The choice of material is very important: you must look for composites that have biomechanical characteristics similar or equal to nature such as ENA HRi BIO FUNCTION by Micerium, an enamel used in the posterior sectors, which has an abrasion index very close to that of type 3 gold, which is considered the gold standard for function. Once the modeling is completed we finish the restoration, with polishing, a very important step important because a well-polished reconstruction is less attacked by bacterial plaque it, is more respectful of periodontal tissues and periodontal tissues and has a better aesthetic behavior over time⁶⁻⁷.

In conclusion, if you are looking for excellence in dentistry, we recommend the use of One-Step composites in the deciduous teeth of patients with poor cooperation, while in all other cases all other cases we suggest a traditional layering. ■

Bibliografia

1. Vanini L. Il restauro conservativo dei denti anteriori, Viterbo, ACME, 2003.
2. Ricci G. Diagnosi e Terapia Parodontale, Milano, Quintessenza Edizioni, 2012.
3. Scotti N, Comba A. Microinfiltrazioni ai margini dello smalto e della dentina con una massa riempie la resina scorrevole. Eur J Dent 2014 gennaio; 8(8):1-8.
4. Cardinali F, Gorni F. L'isolamento del campo operatorio, Roma, ANDI Servizi SRL, 2013.
5. Van Meerbeek B, De Munk J, Yoshida Y, Inoue S, Vargas M, Viaj P et al. Lezione commemorativa Buonocore, adesione a smalto e dentina: stato attuale e sfide future. Oper Dent 2003; 28:215-235.
6. Goldestein GH, Waknine S. Valutazione della rugosità superficiale del composito tecniche di lucidatura delle resine. Quintessenza Internazionale 1989, 20:190-204.
7. Yap AU, Tan S, Teh TY. L'effetto del sistema di lucidatura sulle microinfiltrazioni direstaurativi colorati per i denti. Parte 1 Glassionomero convenzionale e modificato con resina cemento. Journal of Oral Rehabilitation 2000, 27(2):117-123.

About the author



Dr. Francesco Simoni graduated with honors in Dentistry from Pisa University, Italy in 2005. He is the co-author of the chapter "Non Surgical Periodontal Therapy" in Dr. Giano Ricci's book Diagnosis and Periodontal Therapy, published by Quintessence. He is co-authored with Dr. Lorenzo Vanini the chapter "Elements of Restorative Dentistry and Assistant Techniques" in Dr. Paride Zappavigna's book Manual for the Dental Assistant, published by Ariesdue. He has authored numerous publications in national and international journals.

He is an active member of the Italian Academy of Esthetic Dentistry (IAED), the Italian Society of Conservative Dentistry (SIDOC) and is an affiliate of the European Academy of Esthetic Dentistry (EAED). He lectures abroad teaching practical and theoretical courses in esthetic dentistry.

He has a private practice in Lido di Camaiore (It) and also practices in the private practices of Lorenzo Vanini in Chiasso (Ch).

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