



Title : How to achieve a stable bond: from research to clinic

Author: Lorenzo Breschi

Affiliation: University of Bologna (Italy)

Abstract

Aim of the presentation will be a critical review of the latest improvements of dental bonding systems. Chemical background and physical characteristics of the adhesives will be assayed to understand the clinical capabilities and the possible role of the clinician to obtain the highest bonding performances, in terms of improved bond strength, extended durability and reduced post-op sensitivity. The lecture will also clarify the mechanisms that affect the stability of the adhesive interface over time, analyzing the role of different degrading phenomena synergistically contributing to degrade the hybrid layer.

The lecture will provide clinical step-by-step procedures along with “tips and tricks” to achieve the highest clinical success in terms of aesthetic requirements, biomechanical properties of adhesive restorations, bond strength and stability of the adhesive interface over time.

Learning objectives:

1. To present step-by-step protocols for clinical procedures of bonded anterior and posterior direct restorations and directions for luting indirect restorations;
2. To provide a standardized approach to adhesive dentistry aiming to achieve a stable bond over time.

CV

Dr. Lorenzo Breschi received his DDS degree cum laude in 1994 and PhD in Human Morphological and Molecular Sciences in 1998 at the University of Bologna (Italy). He is now Full Professor of Restorative Dentistry and Dental Materials at the Department of Biomedical and Neuromotor Sciences (DIBINEM) at the University of Bologna (Italy), Head of Conservative Dentistry and Director of the Master in Aesthetic Restorative Dentistry at the University of Bologna (Italy).

Prof. Lorenzo Breschi is President of the European Federation of Conservative Dentistry (EFCd), President of the International Academy of Adhesive Dentistry (IAAD), President Elect of the Italian Academy of Conservative Dentistry (AIC), and Past-President of the Academy of Dental Materials (ADM) and DMG-IADR.

Prof. Breschi is Associate Editor of the Journal of Adhesive Dentistry and member of the editorial board of several international scientific journals and actively involved in research on the ultrastructural aspects of enamel and dentin and their interactions with dentin bonding systems. Prof. Breschi has published more than 200 original papers and review articles on peer-reviewed journals on different aspects of adhesion and restorative materials with an H-factor of 42 and a total impact factor over 550.