In the last few years the dental industry has launched multiple resin-based restorative materials designed to achieve a greater time efficiency for clinicians. The new technology of bulk-fill composites, which allows increased polymerization depth, comes with modifications to the material's formulation which allows the blue light to penetrate deeper. Some of the benefits of these new compositions include: less filler particles, increased translucency, and additional photo initiators. But there is a compromise to these changes in material compositions both with the material's mechanical properties and/or optical characteristics. Several laboratorial studies have shown that bulk-fill composites have the ability to cure at an increased depth when compared to conventional composites, however for clinicians, it is difficult to truly predict if the most critical margin (gingival) of any posterior restoration is optimally polymerized and void-free when the material is placed in bulk.

This webinar will explore the properties, benefits and limitations of state-of-art bulk-fill composites and will address some of the clinical issues linked to these chemical modifications. Using a step-by-step, evidence-based approach, this webinar will educate clinicians about the possible uses of bulk-fill restorative materials, optimizing benefits without jeopardizing quality and durability.

**EDUCATIONAL OBJECTIVES**

- Describe the main components of a restorative dental composite
- Distinguish the main modifications on bulk-fill composites
- Understand the impact of its chemistry on long-term performance
- Apply current scientific knowledge to the clinical placement of bulk-fill restorative materials
- Analyze benefits and limitations of bulk-fill composites

**CLINICIAN**

ADRIANA MANSO, DDS, MS, PhD is Associate Professor and Chair, Division of Restorative Dentistry at The University of British Columbia. She received her D.D.S. from the State University of Londrina, Brazil; Master of Science in Restorative Dentistry from the University of São Paulo, Bauru, Brazil; and PhD in Dental Biomaterials from the University of São Paulo, São Paulo, Brazil. She also holds two specialty degrees, in Endodontics and Restorative Dentistry, along with several years of clinical experience. She taught both disciplines to specialization courses in Brazil; she was Manager for Clinical Research at Bisco, Inc, USA; and a Clinical Assistant Professor in the Department of Restorative Dentistry, at the University of Florida, USA. Dr. Manso joined UBC Faculty of Dentistry in 2011, initially as Clinical Assistant Professor in the Division of Dental Biomaterials, being appointed as Associate Professor in the Department of Oral Health Sciences, Division of Restorative Dentistry in 2019.

Dr. Manso has lectured both nationally and internationally in invited presentations and continuing education courses. Her research interests are mostly focused on restorative dental materials and dental interfaces. Dr. Manso’s scientific contributions include: alternative approaches to eliminate the presence of unbound water in dentin bonding aiming to prolong the adhesive interface durability; understanding dental adhesive’s behavior; and investigating the potential use of MMP inhibitors involved in dentin collagen degradation. Currently, her research interests are focused on collaborative work aiming to explore the use of metallic ions for the development of smart restorative and therapeutic dental materials for caries prevention and control.