# CONSIDER USING GLASS IONOMERS IN YOUR CLINIC:

# ALTERNATIVE TO DENTAL COMPOSITE RESIN THAT IS MERCURY-FREE & BPA-FREE

In part 1 of this article, titled "Alternatives that help overcome 3 challenges of composite". I wrote about three challenges of using composite resin. Those include Secondary Decay, Technique Sensitivity, and Leakage Probability. There are many circumstances where the use of an alternative material that reduces and prevents those types of challenges would be indicated. Glass Ionomer (GI) is one of these restorative materials, and most of us have used glass ionomer at one time or another in clinical practice. But what most dentists are not aware of is the changes and improvements that have been made to glass ionomers in the recent years. Glass ionomers are tooth-coloured materials that chemically bond to tooth structure and release fluoride. GI is available as self-cured and light-cured. GI have a number of advantages over other restorative materials.



#### FLUORIDE-RELEASE

Fluoride-release occurs from the glass powder at the time of mixing. This means that it does not affect the physical properties of the restorative material, which continues to release fluoride over a long period of time. This inhibits caries and reduces the chances of secondary decay, which is a significant advantage especially in patients with a higher risk of decay.



#### MARGIN ADAPTATION REDUCES LEAKAGE

Glass lonomer has a very similar expansion in temperature (coefficient of thermal expansion) to tooth structure. That means that it behaves similar to the tooth with changes in temperature, resulting in good margin adaptation and reduction in leakage. That, combined with high flexural strength of some GI materials, makes it a restorative material of choice in areas that have high masticatory forces like class I and class V type preparations.

## HANDLING

Class lonomer is very easy to place and, since it chemically bonds to teeth, it requires no etching and no adhesive, allowing for quick placement and less technique-related challenges. This makes it especially important when treating children, patients with special needs, patients with back or neck problems, and areas in the mouth where speed is critical, like root surfaces and proximity to gingival tissue.



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#### **ABOUT THE AUTHOR**

Dr. Bis received her Doctor of Dental Surgery degree from University of Western Ontario in 1996, and her Bachelor of Science from University of Toronto in 1992. With years of clinical experience and thousands of hours in postgraduate training, her unique focus and expertise in treating Temporo-Mandibular Joint Disorder and comprehensive restorative dentistry, along with the use of digital technology, has led to developing exceptional systems to diagnosis and treatment planning, helping chronic pain patients treat their unresolved jaw pain, migraines and headaches.



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Riva LC and Riva SC from SDI comes in two options, regular and high viscosity, which provides exceptional handling (less sticky and stringy)

## **AESTHETICS**

In recent years, some Glass lonomers have been developed to provide more translucency, colour stability, and shade options, resulting in a restoration that blends with surrounding tooth structure and provides patients with natural looking restoration with all the added benefits of GI. In addition, some Glass lonomers provide long-term acid resistance, which can be a huge advantage in patients with bacterial and acid challenges.

## INDICATIONS

Glass lonomer can be used as a restorative material choice in many situations and it's especially useful in the following types of restorations:

- ✔ Class I
- ✔ Class II
- ✔ Class III
- ✔ Class V
- ✓ Cervical erosion & abfraction
- ✓ Root Surface
- ✔ Core Build-up
- ✔ Primary Teeth
- ✔ Geriatric Patients
- ✓ Patients with Special Needs





Photos courtesy of Dr Geoff Knight - Australia

#### LEARN MORE ABOUT SDI'S IONGLASS™

Drawing on 50 years of dental research experience, SDI's ionglass™ filler was developed specially for Riva and is manufactured in Australia by our glass experts.

The **ionglass™** technology mimics the natural tooth structure, guaranteeing restorations will withstand long term mastication forces and patients will be satisfied with the treatment.







RIVA LIGHT CURE LIGHT CURED RESIN REINFORCED GLASS IONOMER RESTORATIVE MATERIAL





Riva LC HV (SDI)



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