27.8% of crown procedures are replacements of existing crowns.¹

Microleakage is a common cause of restoration failure. Contaminants can leak through microscopic discrepancies at the margins and lead to recurrent decay, compromising the longevity of your single-unit crown restorations.

Microleakage can be demonstrated using a beaker with a stopper designed to fit perfectly.

- Although the seal appears to be perfect, there are still microscopic discrepancies.
- Colored water added around the perimeter of the stopper seeps past the seal.

The same thing can happen with a traditional glass ionomer cement. As it cures, discrepancies can form in the dentin-cement interface, allowing microleakage and potentially leading to restoration failure.

Calibra® Bio bioceramic luting cement features a unique chemistry that combines calcium aluminate and glass ionomers (CAIO) to deliver seamless adaptation towards the tooth structure.

¹ Source: 2015 The Key Group Omnibus Dental Survey, Quarter 3
Calibra® Bio cement interacts with phosphate ions in saliva to form a self-repairing layer of hydroxyapatite (HA) at the cement-saliva interface.

If forces like brushing or chewing cause future damage, Calibra® Bio cement works bioactively to continuously repair it.

Self-repairing hydroxyapatite layer

In this demonstration, Calibra® Bio Cement is in contact with a solution containing phosphate, similar to saliva. Its bioactive properties cause HA to form, seamlessly filling the scratched surface.

Competitive materials claim to release calcium and promote apatite formation, but in our tests they couldn’t repair the scratch.²

A closer look

This scanning electron microscope image shows HA formation at a magnification of 500x.

The self-repairing property of Calibra® Bio cement minimizes microleakage to ensure the long-term marginal integrity of your single-unit crown restorations now and for years to come.

Calibra® Bio cement tested in a saliva-like solution against two competitor materials that claim bioactive apatite formation. Data on file. ML077028F (4-18-19)

Seamless adaptation and a self-repairing HA layer for lasting marginal integrity, bioactively.

For more information, visit CalibraCement.com