

## The role of Giomer technology for restorations supporting biomimetic dentistry

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### Abstract

“Biomimetics” is that the field of science that uses the natural system of synthesizing materials through biomimicry. These methods are often widely utilized in dentistry for the regeneration of dental structures, preserving the perfect properties of natural teeth while using minimally invasive preparations to conserve enamel and dentin. This is often through with a far better understanding of the caries process and punctiliously placed bonded materials to exchange lost tooth structure and regain strength and esthetics.

The bioactive and therapeutic qualities imparted by the Giomer Technology, in certain resin based composite restorative materials offers a mixture of features that make it suitable for several patients, especially kids, geriatric patients and people with conditions which will put them within the high caries risk category. The advantages are anti-bacterial properties, acid neutralization, and remineralization. These claims are supported by numerous studies that show clinical proof and SEM slides that show images. Giomer may be a tooth-colored restorative material that uses a resin base and pre-reacted glass ionomer (PRG) technology. S-PRG technology delivers some properties of glass ionomer like fluoride release and recharge which helps prevent caries recurrence. It also provides properties of composite resin like excellent esthetics, easy polishability, biocompatibility, and smooth surface finish. Moreover, it's an antiplaque effect by forming a cloth film layer with saliva that's reported to attenuate plaque adhesion and inhibit bacterial colonization. Giomer restorative material showed lower microleakage scores than compomer. Giomer restorative material might be considered an appropriate class II restoration of primary and permanent teeth within the high caries risk population.

### Biography

S Kanuga completed her Pediatric dentistry training with a MSD degree from one of the most esteemed programs at the University of Washington, Seattle in 2009. She was one of the first dentists in the US to start using ICON Resin infiltration for interproximal caries lesions on patients in her residency training under the guidance of Dr. Joel Berg. She was a dentist in India (GDCH, Ahmedabad) before she came to the US in 2002. She received her DDS at the University of California, Los Angeles (2006); and continued her training in hospital dentistry (2007). She is a diplomate of the American Board of Pediatric Dentistry. With 10 years of training in Dentistry and several years of clinical experience under her belt. She prides herself in the practice of Evidence-based dentistry and an emphasis on preventive oral care for young children.



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