

Diamond Teeth

What's worse than a ring around the collar? What about a ring around a tooth?! Now there's a cure for the "black gumline syndrome." Dentists can now replace that black ring with a diamond ring. That's right, synthetic diamond, zirconium, is the revolutionary new material that's better than metal bases for porcelain dental crowns. They look better and are stronger, less heavy, and more biocompatible. And in a short time, they have built up an incredible track record!



Zirconium covered with porcelain is far superior in many ways to the alternative, porcelain with a metal substructure. This is vital to making dental crowns look more natural, according to Dr. Lorin Berland, Fellow of the American Academy of Cosmetic Dentistry and a frequent clinical author on the subject (see attachments). Porcelain is bonded to the tooth-colored zirconium core when a crown or bridge is made. But without the black metal under-structure, light transmits through to the gum and tooth to create a more esthetic appearance that helps mimic natural teeth.

When applicable, Dr. Berland's patients overwhelmingly choose zirconium when a bridge or a single tooth needs to be restored, even though it is more costly than using a "base metal alloy" as the underlying structure. Dental laboratories prepare the zirconium for these cores using sophisticated CAD-CAM technology. The cheapest alternative, a non-precious base-metal alloy, probably costs at least 20 percent less than quality zirconium, explains Dr. Russell Giordano, an associate professor at Boston University Goldman School of Dental Medicine. Still, patients will attest to the unsurpassed esthetics as well as the more natural feel of these restorations and are excited about having this option for a more beautiful smile.

Heavy metal? Metal in your mouth is heavy. Empirical studies demonstrate that zirconium crowns come closest to matching the mass of natural tooth enamel. Zirconium cores offer exceptionally strong, yet lightweight, frameworks. Because they weigh less, zirconium crowns may help reduce occlusal and temporomandibular dysfunction (TMD) stress. If you have a lot of crowns, this reduced weight can make a positive difference in the way you feel.



In an age of increasing metal allergies and toxicity, zirconium is gaining popularity among dentists and especially patients. No metals mean no metallic tastes and a decrease in thermal conductivity. This means zirconium-crowned teeth may be less sensitive to hot and cold temperature changes. Zirconium is the most biocompatible dental material available. That makes for healthier gums and happier smiles.

The science of dental materials is constantly improving. We are fortunate that technological advancements can give us better dentistry - now. It's time to say "goodbye" to those old black gum lines, and say "hello" to your new natural-looking smile.

