

Patients' Best Interests at the Heart of Conservative Esthetic Dentistry

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Q: Responsible esthetics: What is the state of conservative esthetic dentistry?



A: Dr. Bakeman

When approaching esthetic considerations in a responsible way, it is best to consider risk and prognosis—the risk and prognosis with which the patient presents, as well as the anticipated

risk and prognosis for the patient following any proposed treatment. This approach requires evaluating each patient comprehensively, establishing a diagnosis, and developing a treatment plan that avoids recommendations that increase risk while embracing ones that lower, or at least manage, risk. In this way, esthetic considerations are evaluated and balanced with the patient's medical, periodontal, biomechanical, and functional considerations.

Dentists have a responsibility to help patients understand the risks of both foregoing as well as proceeding with treatment. When the focus of developing a treatment plan stays fixed on risk management, the best interests of the patient remain first and foremost. Sometimes the avoidance of tooth preparation is the most conservative approach, and other times it is not.

For example, for a patient of high caries risk who already has structurally compromised teeth restored with direct restorations, veneers may not be the wisest choice. In patients with high biomechanical risk, full-coverage restorations may be the most “conservative” choice that best increases long-term prognosis for both the teeth and the restorations. For a patient whose teeth are a pleasing size, shape, and color, but malpositioned, any type of tooth preparation would increase risk for the teeth and should be avoided. In instances such as these, the most conservative treatment may be orthodontics and/or restorative dentistry that involves no tooth preparation.

All evidence regarding the patient must be weighed. The clinician must then counsel the patient on the risks associated with the various treatment options using terminology that is easily understood. Lastly, clinicians have an obligation to refuse treatment requests that do not serve the patient's long-term interests. Science and sound clinical judgment must be combined to help guide patients in making decisions regarding esthetics within the scope of overall health and well-being.



A: Dr. Goldstein

It was nearly 54 years ago that Dr. Michael Buonocore called to let me know he and Dr. Rafael Bowen had developed a bisphenol A glycidyl methacrylate (bis-GMA) formula, which would be called “composite resin.” He said the large-particle bis-GMA formula worked well in restoring fractured teeth, but he wanted my help in developing other esthetic procedures. It was one of the most exciting parts of my career, as it enabled the creation of techniques for correction of crowded, spaced, discolored, and misshaped teeth. The result was less expensive and single-appointment smile transformations for patients while also conserving considerably more tooth structure than before.

Since that time, much of this conservative philosophy has eroded, as greater emphasis has been put on full crowns, such as monolithic zirconia and extensive porcelain veneers. Obviously, both of these have their indications, but conservative dentistry seems to be losing the battle in too many dental offices. Some clinicians feel that composite resin restorations do not last as long; however, when they are done well, they do, with the added benefit of being easily repaired when needed. Other clinicians state that insurance pays much more for full crowns and give that as a reason for doing them almost routinely. Unfortunately, this ethically questionable reasoning is a factor for some clinicians when deciding treatment.

Responsible esthetics must include a detailed tooth-by-tooth clinical examination using high magnification, such as a stereoscopic microscope or an intraoral camera. One approach is to examine all new patients with close-up view of every surface with two goals in mind. The first is to find any disease present, and the second is to discover any cracks or microcracks in susceptible areas that could lead to tooth fractures and even tooth loss. It is important to warn patients about the potential for any fracture, and even advise them of recommended diet changes until the tooth can be protected with a bonded composite resin restoration.

One disturbing ongoing pattern of treatment planning involves the use of 8, 10, or 12 porcelain veneers to improve both tooth shade and position of teeth. An alternative, more conservative approach would be repositioning the teeth with Invisalign®, and while the teeth are being straightened, they can also be bleached using the same appliance. If the teeth are darkly stained, then 8 to 12 months of bleaching while wearing the appliances can result in straighter and brighter-looking teeth at the end of treatment. Responsible esthetics means dental professionals being responsible to their patients' needs rather than their own.



A:

Dr. Sesemann

A conservative treatment philosophy was part of the initial premise behind the proposed protocols for esthetic dentistry brought forth in the early 1980s. The original claims were that dentists wouldn't need to prepare the teeth very much to produce an esthetic transformation, and an impervious bond would be fashioned between the emerging esthetic materials and enamel.

What occurred next is something that frequently happens in a commercially driven culture. As society began to value esthetic norms, a strong public demand for esthetic dentistry fueled a meteoric rise in supply in the latter stages of the 20th century. In the process of supplying that demand, some practitioners took liberties to extend, overlook, or simply ignore the initial standards and proclamations for conservative esthetic dentistry. Consequently, responsible tooth preparation became an afterthought to emotional marketing—"instant orthodontics," for example—and other decisions driven by commerce.

As we move into 2015, the trend is definitely "back to the future," with technological advancements in dental materials leading the way for the restorative team. The restoring dentist and laboratory technician have a seemingly endless array of products and protocols to choose from. When it comes to full-mouth rehabilitations or smile design treatment, practitioners are working together in an interdisciplinary fashion to minimize the loss of healthy human

tissue. Orthodontics must be utilized as an interdisciplinary adjunct in restorative care to help make dental treatment plans the most conservative they can be. While the current options available in materials and techniques are impressive, there is nothing in a clinician's armamentarium that can absolutely mimic the structural characteristics of the dentin-enamel junction (DEJ). The DEJ is an amazing testament to biologic engineering that dentistry simply cannot synthesize at this time. In essence, enamel needs to be given the sacred respect it deserves, and clinicians really must have a compelling reason to prep beyond the DEJ of a healthy, previously minimally restored tooth.

Clinicians must make conservative dentistry a daily priority. With a united effort, dentists can have peace of mind that the state of responsible, conservative esthetic dentistry is strong and trending in the right direction.

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