



# The Biomimetic Approach

By Saul Pressner DMD, FAGD, Vice-President, and Georgene Chase DDS, MPH, President-Elect, Academy of Biomimetic Dentistry

The Academy of Biomimetic Dentistry was formed to promote the science and merits of tooth-conserving dentistry. When compared to more traditional treatment modalities, these concepts bode better for the long-term prognosis of teeth.

My clinical experience with using the techniques first taught by Dr. Ray Bertolotti and refined by Drs. David Alleman and Simone Deliperi have been of great benefit to my patients. Instead of 'amputating' tooth structure, we seek to strengthen and reinforce what nature has given us, using the latest materials and techniques based on peer-reviewed research.

Dr. Alleman has compiled a current literature review that he teaches in his "6 Lessons" courses, presenting them several times per year. These six paradigms instruct the dentist how to conserve and enhance tooth structure by preventing bacterial contamination and often successfully repairing fractured tooth structure in a conservative manner. In addition, the dentist also learns proper caries detection and removal, and proper restoration of said tooth structure reflecting the design of the natural tooth.

By preserving more tooth structure and preventing catastrophic failures, teeth restored using biomimetic materials and methods have been shown to have better long-term prognoses and are less likely to need crowns, endodontic therapy, and potential extraction. Using these techniques has enabled members of the academy to offer a better and often more cost-effective service to our patients, while providing a better long-term result for their oral and overall health.

The techniques we focus on in Biomimetics rely more on diagnosis and treatment planning that are far beyond the methods we learned in dental school.

## In the beginning

The formation and first annual meeting of the Academy of Biomimetic Dentistry in 2012 was called by Dr. Bertolotti "the best thing to happen to dentistry" (see Inside Dentistry December 2012).

Our first meeting, held in Reno, Nevada, in October 2012, was a resounding success. It featured speakers such as Drs. Ray Bertolotti, Van Thompson, Simone Deliperi, David Alleman, David Rudo, Mark Malterud, John Derango, Jeffrey

Hoos, David Singh, and George Bogen among others speaking on various topics such as techniques for preserving tooth structure and the advantages to the patient of such treatments as supported by the latest scientific research.

We are looking forward to our next meeting October 11-13, 2013. By featuring many more of the best speakers dentistry has to offer, we'll continue to provide excellent tooth-conserving care to our patients, potentially saving more teeth and improving overall health and quality of life of the public at large.

We cordially invite members of the Pennsylvania AGD to attend our second annual meeting in Reno and become active members in what we feel will be the wave of the future: the restoration of teeth in a more tooth-conserving manner, removing less tooth structure, decreasing the need for endodontics, and prolonging the survival of teeth in a population that is living longer and enjoying better health. ■

*Dr. Pressner can be reached at 212-249-8999 or email at saultooth@aol.com. His website is www.newyork-cosmeticdentist.com. Contact Dr. Chase at 775-786-7718 or email georgenedds@aol.com. Her website is www.infinitydentalgroupnv.com.*

## BIOMIMETIC CASE EXAMPLE

Case study and photos courtesy of Grant Chyz, DDS

Cracked canine, presented with sensitivity to pressure and cold. Symptom free after three weeks.

**figure 1:** After composite restoration came out, tooth was sensitive. Dr. Chyz replaced composite using his standard protocol; but the replacement composite came out and tooth was again sensitive.

**figure 2:** Dr. Chyz transluminated the tooth and noticed a crack.

**figure 3:** He extended the preparation to include more of the crack. He lined Ribbond closely against the pulpal floor bridging the crack, and completed the composite restoration over it.

**figure 4:** Composite remained in place. Within three weeks, the sensitivity disappeared.



figure 1



figure 2



figure 3



figure 4