

Veneers and Responsible Esthetics



John R. Calamia, DMD
AACD Board of Directors
Professor, Director of Esthetics
Department of Cariology and
Comprehensive Care, New York
University College of Dentistry

Veneers have revolutionized the art and science of cosmetic dentistry. This issue of *JCD* offers a variety of articles and photography that discuss and display how veneers are utilized today. In accordance with this, Editor-in-Chief Dr. Edward Lowe is honored to present this Guest Editorial by Dr. John Calamia.

It has been nearly 30 years since Dr. Richard Simonsen and I developed a technique to improve upon the color-unstable composite resin veneers that were the state of the art in 1982 with a treatment that was conservative, as far as tooth reduction, yet had the promise of being as esthetically pleasing and long lasting as “Hollywood caps” or full crowns.

Our research showed that if one were to etch porcelain and bond it to the surface of a tooth, sufficient bond strengths could be achieved that were expected to retain these restorations for many years.

It is up to us to seek the knowledge and skills to either provide the least invasive procedures required by a thorough examination of our patients’ needs, be they reconstructive or elective, or to refer them to colleagues who have mastered this knowledge.

Our continued studies indicated that a mild preparation of approximately .5 mm, for the most part keeping our margins within enamel, allowed for the thickness of the actual veneer to be placed. This restored the original emergence profile of the tooth yet provided enough room in the ceramic to create improved, natural-looking esthetics.

Although the bond strengths to enamel were more than sufficient for retention, the feldspathic porcelains sometimes exhibited fracture within the “substrate porcelain” itself. Practitioners started moving toward deeper preparations, thinking that the resultant increased thickness of the porcelain would cause fewer fractures. Unfortunately, the opposite was true as preparation into more motile dentin proved to be less supportive than enamel.

The development of pressed ceramics proved to be a great help in the use of etched porcelain posteriorly, but their use anteriorly, due to the initial need for a minimum of .7 mm to 1.0 mm of space to get the best esthetic result, led to over-preparation in this most visible area. Modern pressed ceramics and lithium disilicate, which can be made as thin as .3 mm, have led to our returning to more conservative tooth preparation. These technologies, plus the development of zirconium substructures for all-ceramic crowns and bridges, allow for the restoration of whole dentitions that are metal-free.

It is up to us to seek the knowledge and skills to either provide the least invasive procedures required by a thorough examination of our patients’ needs, be they reconstructive or elective, or to refer them to colleagues who have mastered this knowledge. We need fewer courses on how to sell cases and more courses on the techniques of diagnosis, familiarity with the materials that will best serve our patients, and attention to the ethics we are sworn to employ in patient treatment. I am proud of the commitment the AACD has made to Responsible Esthetics.