

Posterior Esthetic Dentistry — A Perspective for the New Century

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Posterior esthetic dentistry. What did it mean 50 years ago? What does it mean today? Twenty years ago, dentists had few choices for restoring posterior teeth. Assuming a patient did not need full-coverage crowns, posterior teeth were only restored with amalgam or cast gold. Despite its great shortfall in esthetics, amalgam remained the material of choice for most dentists because it was relatively easy to use and inexpensive. In the words of the late Dr. Ronald Jordan, "Amalgam was among the most forgiving of all dental materials."

However, clinicians who could make amalgam look esthetic were few in number. Even though talented master dentists like Dr. Miles Markley and Dr. Harold Shavell could create perfect tooth morphology and function using amalgam, the restorations could never be called esthetic because of their colour.

For patients who could afford it, cast gold was the material of choice. Even today, the intricate and expensive laboratory procedures associated with gold restorations ensure an incredibly strong material with an exact replica of natural morphology. However, there is no choice of colour. Although cast gold is still the strongest material with the greatest longevity, it is perfectly understandable for most patients to want a natural-looking mouth when having restorations.

Recently, there has been a dramatic change in the profile of the posterior restoration. Part of this shift is due to the tremendous improvement in tooth-coloured materials, such as porcelain and composites, as well as more conservative preparation protocols and forever changing theories of preparation design. The shift is also due, in part, to a higher level of education among patients. Given the choice, and shown side-by-side pictures of teeth restored with amalgam and teeth restored with natural-looking materials,

very few people will select amalgam. With amalgam no longer used in many countries, I predict that within the next 10 years it will disappear entirely in North America. This development will again give patients two main choices in restoring posterior teeth — gold and tooth-coloured.

With tooth-coloured restorations we can preserve more tooth structure, and because the bond strength of today's materials has increased so dramatically, we can be comfortable that we have a replacement for amalgam. The advantages are obvious (Figs. 1 and 2).

Preparation designs for indirect tooth-coloured materials have changed considerably from cast gold, the most important being the use of rounded angles instead of the classic sharp angles of G.V. Black. We can create very conservative prepara-



Figure 1: Old amalgam restoration.



Figure 2: Old amalgam restored with tooth-coloured bonded restoration.



Figure 3: Space with missing tooth to be restored with minimal preparation using inlay preparations.



Figure 4: Three unit non-metal inlay bridge bonded into place.



Figure 5: Minimal inlay preparations for anterior bridge retainers.



Figure 6: Anterior bridge bonded into place.

tions when restoring posterior areas with a fixed bridge made from metal-free materials, such as the posterior inlay bridge (Figs. 3 and 4).

In the anterior area, where years ago a three-unit bridge would mean cutting down two healthy teeth, restorations can be accomplished with minimal preparations (Figs. 5 and 6).

For young dentists to ignore this dramatic shift in treatment would be a mistake. Unfortunately, in my opinion very few dental schools in North America are graduating students with the skills or knowledge to perform posterior restorations with tooth-coloured materials with any degree of confidence. Even dentists who have been practising for many years and are trying to shift to tooth-coloured materials will face frustration and failure because they expect the same time commitment and cost as amalgam. To be successful, performing tooth-coloured restora-

tions requires precise, new and unforgiving techniques.

I urge all dentists, whether experienced or recently graduated, to make learning how to do natural-looking restorations a priority. Prepare yourselves by seeking out the best continuing education programs and by reading the very latest research in reputable journals. I have no doubt we are headed in the direction I propose. Be ahead of your time — enjoy your dentistry to the fullest by doing pro-

cedures that are satisfying to both you and your patients.

The next millennium is quickly approaching. Posterior esthetic dentistry is being redefined and has an entirely new perspective. Do whatever you need to do to be part of it. Maybe Oliver Wendell Holmes was talking directly to dentists when he said, “It is not so important where we stand, as to what direction we are moving in.” ♦

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