

## Current tooth-bonding strategies and their clinical effectiveness

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Dental adhesive technology is evolving fast. The extensive possibilities for 'direct' and 'invisible' restoration of teeth offer a definite answer to the primary request of our patients. The concurrent potential to limit sacrifice of sound tooth tissue has triggered a rapid turn-over from a 'mechanical-oriented' to an 'adhesive' and 'minimal-invasive' tooth-care concept.

'How can I restore a decayed or fractured tooth least invasively?' should be the starting point of today's restorative dental practice. In each need of tooth restoration, this question should again be addressed.

The objective of this presentation is to illustrate this 'minimal-invasive' tooth-care concept with clinical examples, as well as to introduce the newest developments in adhesive technology required for it. Effectiveness of modern adhesives in laboratory will be correlated with clinical effectiveness data.

This lecture will be given from a sound critical standpoint en will encompass a broad amount of product-and-use information with direct application in the daily practice.



| Bart Van Me | erbeek                                                                                |                                                 |                    |
|-------------|---------------------------------------------------------------------------------------|-------------------------------------------------|--------------------|
| 1988        | DDS degree, the Catholic University of Le                                             | uven in Belgium                                 |                    |
| 1993        | Ph.D. degree, the Catholic University of Le                                           | euven in Belgium                                |                    |
| 1994~1995   | Research at the University of Texas Heal and later also at the University of Missouri |                                                 | San Antonio, Texas |
| 1995        | Assistant Professor (Docent) at the Catho                                             | olic University of Leu                          | ven and since then |
|             | teaches Dental Materials Science                                                      |                                                 |                    |
| 1998        | Associate Professor (Hoofddocent)                                                     |                                                 |                    |
| 2002        | Professor (Hoogleraar)                                                                |                                                 |                    |
| 2005        | Full Professor (Gewoon Hoogleraar)                                                    |                                                 |                    |
|             |                                                                                       | <ul> <li>1. 1. 14 (ASSA) (2.11 - 4).</li> </ul> |                    |

His primary research interest involves studies related to the adhesion of restorative materials to tooth tissue. His research work has been published in more than 250 national and international peer-reviewed journals and has been honoured with awards such as the triennial Robert Stock award for Biomedical Sciences in 1996, the Albert Joachim Award in 1997, the Award in Biomedical Sciences of the Research Council of the Catholic University of Leuven in 1998, the IADR Young Research Award in 2000, the SmithKline Beecham award in 2001 and the Buonocore Memorial Lecturer in 2003. Together with Prof. P. Lambrechts, he became in 2003 holder of the Toshio Nakao Chair for Adhesive Dentistry. He is currently President of the Pan-European-Federation of the International Association of Dental Research (IADR) and Treasurer of the Continental-European-Division of IADR. Since 2004, he is editor of the Journal of Adhesive Dentistry.