

## Zirconium dioxide ceramics - white steel for restorations

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Ever since the International Dental Show (IDS) in 2001, zirconium dioxide ceramics has been the buzz term in dental materials for replacing metal frameworks. Restorations made from these high-strength ceramics, coupled with CAD/CAM technology, have been in high demand for some years now. Nevertheless, this material has specific properties compared with metals and other types of ceramics, which it is vital to take into account during preparation, manufacture, processing and incorporation. While the findings of clinical long-term studies do confirm the high stability of dental bridges made from zirconium dioxide ceramics, nevertheless at the same time they point to an increased number of complications, mostly in the form of the spalling of veneering ceramics. The causes of these incidents are usually multifactorial, and they show that high-tech ceramics have a lower tolerance range during processing.

The aim of the lecture is to point out the specific properties of zirconium dioxide ceramics in order to avoid incidents when this promising material is used.

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