

Zirconium

Zirconia Implants – Metal-Free Implants

Some patients react allergically to metallic implants. Tensions caused by magnetic fields of disruption may be prevented from happening when using implants made of zirconia.

Zirconium-Based Implants

Until recently, the market only offered implants that were made of titanium. Once this metal had been implanted into your jaw bone, it may have caused fields of disruption. Fortunately, the advancements in the utilization of new materials for dental ends have made zirconia oxide, a metal-free substance, available to modern dentistry. Some years ago, implantology was a highly acclaimed new dental technique. But the new material will again revolutionize dental care and point its way towards the future:

Zirconium-Based Implants

Recent state-of-the-art dental care only allowed for implants made of pure titanium; but scientific dentistry has found a way to circumvent the potential harmful titanium and is now proud to have rendered the application of zirconium-based implants possible. Seen from a health care viewpoint, the new alternative clearly offers an additional number of options.

- No allergic reactions to be expected.
- Extraordinary tensile strength and no danger of corrosion.
- Highly enduring with regard to stress and strain.
- Resistant against any kinds of acid.

Zirconium is a very poor chemical and electric conductor and does therefore easily withstand changes in temperature. As it happened, scientists discovered the beneficial neutrality of the substance by chance. While pure titanium potentially effectuated negative biochemical disturbances, zirconia oxide does not indicate any of these repercussions recorded. Implants of titanium are characterized by some degree of translucency, making the metallic-grey substance gleaming through the implant close to the gingival rim. Zirconium is the 'White Gold' of implantology. Zirconium-based implants are an almost ideal option for patients suffering from a metal allergy.

CERCON – a Zirconium-Based Ceramic, Made to Craft Metal-Free Dental Prostheses

In the dental laboratory, skillful and highly professional lab technicians work on dentures, crowns, and bridges that are made of Ceron-ceramic. Thus, many patients' quest for metal-free, bio-compatible, and esthetically superior dentures would finally have been fulfilled.

The new material is largely based on zirconia oxide. In the crafting process of conventional bridges and crowns, models of the teeth are molded according to the precise specifications of the dentist; once done, gold and silver alloys would have been cast into these model molds. In using the new Ceron-ceramic material, lab technicians would have to create wax models as well, but these wax forms serve as the patterns from which a computer-aided milling unit creates the crown or a bridge. In a next step, the implant is milled out with millimeter precision. Following that, the solid zirconia oxide ceramic is put into a sintering furnace to receive its exceptional hardness. Even gracile bridges can be crafted this

way.

One of the major advantages of dentures made of Cercon-ceramic is its excellent biocompatibility. Consequently, metal allergy caused by dental implants should be a something of the past. Excellent hardness and comparable heat-conducting characteristics provide the patient with the best possible compatibility with the remaining teeth. Another interesting aspect would be the fact that crowns and bridges made of Cercon-ceramic are radio-opaque, which is crucial for future dental examinations.