

Cost-Efficient System with Many Innovations

Everyone knows the situation in the dental office: if an implant-supported prosthodontic restoration is indicated for a patient who decides on a dental implant treatment, the patient cannot afford this treatment because it is too expensive.

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Fig. 1

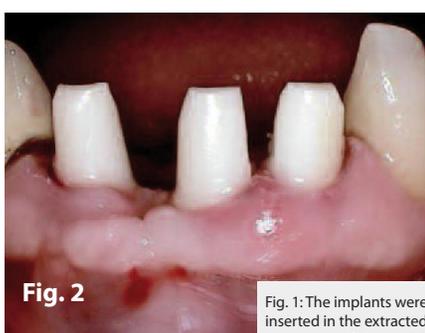


Fig. 2

Fig. 1: The implants were inserted in the extracted alveoli at a torque of about 40 Ncm to 70 Ncm, allowing bone to be condensed.
Fig. 2: Then, we fitted and cemented the Prep-Caps.

Since the material price for implants, including the abutment and the accessories, has previously amounted to more than 200 Euros or even more than 500 Euros per implant, there has often been no other solution besides a prosthodontic treatment without dental implants. In addition, you had to invest thousands of Euros if you passed to another implant system. In 2006, Champions®-Implants GmbH took a major step in the field of Dental Implantology: high-quality and cost-efficient dental implants „Made in Germany“, which are sold Ex Works without a 300% supplement

for the sales service and without a high investment in external sales services. Our know-how and innovation are our priority! The Champions®, who won the German „Regio Effekt“ award 2010, have been manufactured: first, beneficial and cost-efficient one-piece implants and cementable Prep-Caps, meanwhile available in titanium, zircon and in WIN!®, have been developed and fitted almost daily in practice. Prep-Caps are particularly indicated for immediate implantations and

allow for compensating insertion divergences of Champions® implants. Zircon Prep-Caps for one-piece Champions® implants are indicated for immediate implantation series such as in the following case: we inserted the Champions® implants at a torque of 40 to 70 Ncm in the extracted alveoli, allowing bone to be laterally condensed (Fig. 1). Then, we fitted and cemented the Prep-Caps (Fig. 2). We immediately fitted a splinted fixed temporary prosthodontic restoration on the implants to avoid lateral shear forces during eight weeks after implantation. We made the impression and fitted the final prosthodontic restoration eight weeks after implantation (Fig. 3 – 6). The zircon Prep-Caps ensured (GTR) (the remaining alveoli were filled with „Champions®-Liga“ products such as hyaluronic acid gel and/or collagen. Even after many years, no recession was observed.



Fig. 3



Fig. 4

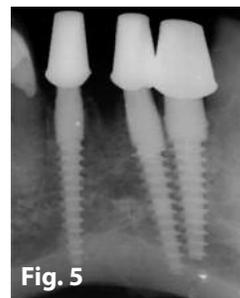


Fig. 5



Fig. 6

Fig. 3 - 6: The impression was made and the final prosthodontic restoration fitted 8 weeks after implantation.



Fig. 7



Fig. 8



Fig. 9

Fig. 7: View of a MIMI® implantation: we fitted a Gingiva-Clix. Eight weeks later, we removed the perforated cover from the Gingiva-Clix (yellow arrow).

Fig. 8: The impression coping was set in the hexagonal Shuttle (blue arrow). In this way, the impression coping stayed in the impression.

Fig. 9: The bone cavity D3 was prepared in the maxilla with a triangular drill and then with a condenser.

Having been inspired by our positive experiences with one-piece implants, their design and the implantation and prosthodontic procedure, we also developed two-piece implants. Most previous two-piece implants have the following disadvantages: they have a micro-gap, which is vulnerable to bacteria penetration, surgery can take several hours, and the treatment and material price is usually high. In addition, a lot of special accessories are often needed. Recently, the two-piece Champions® (R)Evolution has been developed according to the principle „KISS“/“Keep It Safe & Simple“. The inner thread of this two-piece implant type is protected so that the implant can be inserted at a maximum torque of 30 Ncm – 40 Ncm. In this way, the exterior wall (made of soft titanium, grade 4) will not be deformed or the interior thread mistreated. There is very little

risk that interior abutment screws will get loose (which can happen with harder Grade 5-titanium screws). The innovative product that protects the two-piece implant thread and body at a torque of 40 Ncm to 70 Ncm is the „Shuttle“, which is fixed in the implant body at only 10 Ncm and which is rotation-proof. Thanks to an optimal inner cone (patent-pending), the micro-gap has been reduced to only 0.6 µm, which prevents bacteria penetration. The implant and the Shuttle can be inserted at a torque up to 70 Ncm and achieve sufficient primary stability. We choose the suitable WIN!®-Gingiva-Clix from six WIN!®-Gingiva-Clix. The WIN!®-Gingiva-Clix is set on the Shuttle for at least eight weeks. Even after eight weeks, the Gingiva-Clix or the Shuttle does not have to be removed to make the impression. The impression will be made supra-gingivally, and no screwing is necessary.

Usually, the impression is made in about 10 minutes. Local anaesthesia and X-ray pictures are not absolutely necessary. In this way, the workflow in the dental office is optimized.

The figures 7 et 8 show dental implantations according to the periost-protecting MIMI® method. We set a Gingiva-Clix. After eight weeks, we removed the perforated cover from the Gingiva-Clix with the 2.4 mm-diameter condenser. Then, we were able to precisely fix the impression copings in the hexagonal Shuttle. The impression coping stayed in the impression. The dentist informed the dental laboratory (through an image or through a filled order form) of which Gingiva-Clix was fitted in order to assemble and fit the suitable two-part laboratory analog in the model. When the framework was fitted and when the final crown was fitted afterwards, the Shuttle (including the Gingiva-Clix) was unscrewed from the implant in the mouth for the first time, and the customized titanium or zircon abutment was fixed at 35 Ncm. The crown was fitted and cemented on the abutment. Thanks to the inner cone with the Hexadapter, the microgap is reduced to 0.6 µm and prevents bacteria penetration. The implant inner thread does not get worn because screwing and unscrewing is often not necessary. In this way, the implantation procedure is easier.

The figures 9 to 14 show a treatment with the Champions-(R)Evolution® in the following case: we prepared the D3 bone cavity with the triangular drill and a condenser (Fig. 9). In this way, the Champions-(R)Evolution® implants were inserted and achieved sufficient primary stability. Eight weeks after implantation, the supra-gingival impression was made via the impression coping (Fig. 10 and 11). After the immediate implantation had been performed to replace a single tooth (Fig. 12–14), the gingiva was healthy thanks to the WIN!®-Clix for the later prosthodontic restoration (Fig. 14).



Fig. 10



Fig. 11

Fig. 10, 11: After eight weeks, the supra-gingival impression was made via the impression coping.



Fig. 12



Fig. 13



Fig. 14

Fig. 12 - 14: Immediate implantation to replace a single tooth: the gingiva was healthy thanks to the WIN!®-Clix for the prosthodontic restoration.

WIN!® material is an innovation of the German company Champions®. WIN!® is as biocompatible as zircon. The WIN!® material is affordable and suitable for bar-supported and telescope restorations. After implantation, the dental surgeons can optionally remove the Shuttle and cover the Champions® (R)Evolution implant with a 0.3 mm-high screw, and the implants can achieve secondary osseointegration stability subgingivally.

Summary

The Champions® implant system, which can be inserted according to the periost-protecting MIMI® method or also according to the classical implantation (mucoperiosteal incision, tunnel method, extensive augmentations), is reliable: the Champions® (R)Evolution implant system

has only one abutment platform for all implant diameters. Several studies have shown that the Champions® implant surface is one of the best. The surgery and prosthodontic procedure as well as the excellent price-performance ratio are unbeatable. Several articles about the 3D navigation have been published, led by the industry. The one-piece Champions®, the optional Prep-Caps, which can be cemented, and the two-piece Champions® (R)Evolution implants are a major step forward in the field of Dental Implantology, and they are beneficial for patients. In addition, certified dental laboratories in Germany (see patient website: www.mimi-info.de) offer high-quality service by providing, for example, a surgery kit with dental instruments and also articles on commission for the first two patient cases. In this way, Champions® implant users can enrich their know-how about

this implant system instead of investing in special equipment. A two-piece implant costs less than altogether 120 Euros (Implant with Shuttle, Gingiva-Clix, Impression coping, Abutment). A higher number of patients, and not just high-income earners, can now afford high-quality implant-supported prosthodontic restorations, „Made in Germany“.

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