



BIORTHOSIS[®]

The first occlusal splint
with a unique provisional veneer

Now
available!



A brand of



NATURALESTHETICS
BIOMEDICAL ENGINEERING IN DENTISTRY

NO MORE HIDING!

BIORTHOSIS® – the first
occlusal splint with a unique
provisional veneer



HIGHLIGHTS

- Successfully used in minimally invasive TMD therapy (Temporomandibular disorders)
- Unique provisional veneer for an aesthetic appearance even during treatment!
- Made from crystal clear, biocompatible PMMA so the appliance is dimensionally stable and virtually invisible
- State-of-the-art digital manufacturing technologies made in Germany enable a fitting accuracy of between 10 – 15 microns!
- Very comfortable to wear:
tasteless, does not impair speaking or breathing!
- Time and cost savings:
No chairside adjusting of contacts required
- and much, much more ...



BIORTHOSIS®

BIORTHOSIS® ...



... is a next-generation occlusal splint that is used successfully in the treatment of TMD. Unlike conventional bite splints, BIORTHOSIS® already has an integrated provisional veneer. This creates an aesthetic appearance even during treatment! The splint made from crystal clear, dimensionally stable PMMA is nearly invisible and offers maximum patient comfort thanks to a fitting accuracy of between 10 – 15 microns.

The use of state-of-the-art digital manufacturing technologies keeps processing times and costs to an absolute minimum for dentists. No chairside adjustments are necessary and follow-up appointments can even be limited to scanning the new bite relation.

BIORTHOSIS® – High quality made in Germany!

BIORTHOSIS®



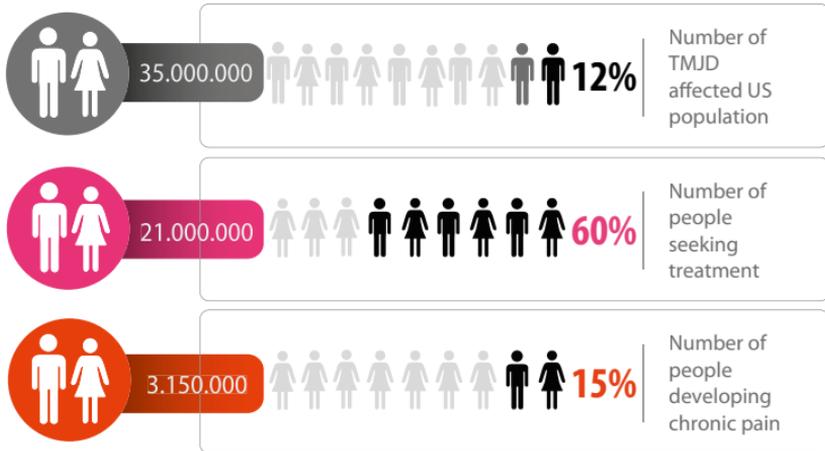
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TEMPOROMANDIBULAR DISORDERS

According to a study by the US Health Department, 35 million people suffer from temporomandibular disorders (TMD) in the United States alone; around 4 billion dollars is spent on treatment annually.

Yet the requirements of patients and physicians with regard to treatment methods are very different. Doctors are concerned about quality and function, but also about the duration of treatment and production costs, while patients want a method that is comfortable and, more than anything else, aesthetic. Until now, the appearance has been a major issue in conventional TMD therapy and is the reason for the very low patient acceptance.

BIORTHOSIS® is the ideal solution for both patients and physicians because it satisfies all requirements in terms of maximum quality and aesthetics.



Source: US Health Department

HOW IT WORKS

BIORTHOSIS® is a key component in the treatment and correction of TMD and has nothing in common with the so-called “bite splints”, “bite guards” or “night guards” that are often used indiscriminately and non-specifically for a variety of functional problems. These appliances are usually basic vacuum-formed splints with simple designs that are not adapted to patients’ joints and lack a biomechanically adequate design.

Conversely, BIORTHOSIS® trains the masticatory muscles thanks to its specific design features and enables simulation of a biomechanically efficient chewing process. This allows the TMJ, masticatory muscles and teeth to work together just as they would in the presence of an ideal equilibrium of forces.

The medical advantages of BIORTHOSIS® are:

- Protection of enamel from excessive wear
- Relief of temporomandibular joints by reducing the pressure
- Relaxation and pain relief for tense muscles of mastication
- Teeth grinding (bruxism) is prevented

The BIORTHOSIS® fulfills the following functions:

- It stops the further joint damage (osteoarthritis)
- Reduces TMJ clicking
- Increases a low bite
- Corrects the position of the jaw joints / joint of the disc and it stabilizes
- Switches disturbing contacts in bite out or compensates missing contact surfaces



INTEGRATED VENEER

Every BIORTHOSIS® occlusal splint is custom made for the patient and comes with a unique provisional veneer. This creates an aesthetic appearance even during treatment and has many advantages:

- **Patients immediately see the results of treatment**
and are more easily persuaded by the treatment plan
- **Patient compliance is higher**
Patients are more willing to wear the splint on a daily basis –
this significantly improves the treatment outcome
- **The treatment is nearly imperceptible to the eye**
This makes it more comfortable for the patient to wear
and is a clear competitive advantage!

BENEFITS



Conventional bite splints



BIORTHOSIS®

BENEFITS



BIOCOMPATIBLE AND DIMENSIONALLY STABLE

Conventional bite splints are often made of thermoplastic, which has a negative effect on stability and hardness, and may lead to more problems due to the high chewing force. When it comes to patient safety, there is no room for compromise. BIORTHOSIS® is made using biocompatible, dimensionally stable PMMA. This material has many advantages ...

- **Excellent physical properties**
300% higher Vickers hardness than conventional materials
for superior dimensional stability during the entire treatment period
- **Minimal wall thickness for maximum patient comfort**
Special manufacturing processes enable the thinnest designs
- **No unpleasant aftertaste**
The dense microstructure guarantees low plaque vulnerability
and makes BIORTHOSIS® completely tasteless

BENEFITS

CRYSTAL CLEAR AND
COMPLETELY TASTELESS!



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DIGITAL MANUFACTURING TECHNOLOGIES

State-of-the-art digital manufacturing technologies enable fast and efficient production and guarantee the highest quality – made in Germany!

- **High-end scan technology for digital analysis**
Scan accuracies within 9 microns in solids enable precise digital analysis of the complete dentition
- **Revolutionary CAD design possibilities**
Feels natural to wear; does not impair speaking or breathing!
- **5-axis milling according to the latest industry standards**
Fitting accuracy between 10 - 15 microns for maximum comfort
- **Digital quality management**
Strict quality control ensures perfect fitting accuracy

BENEFITS



MADE IN
GERMANY



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TIME AND COST SAVINGS

TMD therapy with BIORTHOSIS® is a type of minimally invasive treatment. Patient appointments are kept to a minimum; time-consuming and expensive dental worksteps are eliminated ...

- **Simple and clearly-defined processes provide safety**

Workflows are predefined to minimize errors

- **Less labor-intensive steps for the practitioner:**

No intraoral adjusting of contacts required

- **No lengthy patient appointments**

Follow-up appointments can be limited to intraoral bite registration scanning

- **Future-oriented development**

We are constantly working on new technologies and process step optimization in close collaboration with research institutes

BENEFITS



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TREATMENT

Treatment with BIORTHOSIS® takes place in a series of steps. The duration of treatment is determined based on the patient's individual needs.

- 1. Treatment with BIORTHOSIS® takes place in a series of steps. The duration of treatment is determined based on the patient's individual needs.** We are happy to digitize analog models for you as well.
- 2. Calculation of the required parameter, digital design and manufacturing of the first BIORTHOSIS® occlusal appliance.**
- 3. Reevaluation of the dentition in regularly scheduled follow-up appointments.** Preparation of a bite registration or an intraoral buccal scan.
- 4. The practitioner receives custom-adapted appliances until the treatment objective is achieved.**

Treatment with BIORTHOSIS® appliances



- Wearing phase for patient
- Digitization and production of the individual BIORTHOSIS® appliance
- First appointment: Initial digital occlusal analysis
- ⊗ Follow-up appointment: Reevaluation of the dentition / Check-up appointment
- Last appointment: Treatment objective achieved

The BIORTHOSIS® is worn 24 hours a day 7 days a week for as long as it takes the mandible to stabilize. Stabilization is variant depending on the complexity of the case. **Most cases stabilize between 6 and 18 weeks.**

A LOOK INTO THE FUTURE

We are constantly working on new alternatives and complementary methods in close collaboration with industry partners and research institutes such as the University of Greifswald in Germany. Today's high-precision jaw registration systems and cone beam computed tomography (CBCT) already provide important measurement results for the creation of products with extraordinary fitting accuracy.

The BIORTHOSIS® set

In the near future, new technologies will make it possible to precalculate individual treatment steps so that a complete set of BIORTHOSIS® appliances can already be created after the first appointment for a step-by-step solution that leads to the desired result. This eliminates the need to prepare scan able registrates or buccal scans, thereby shortening treatment times and significantly reducing the number of follow-up appointments.

TREATMENT CONCEPT

BIORTHOSIS® SET
SOON AVAILABLE!



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GLOBAL SUPPLY NETWORKS

All BIORTHOSIS® appliances are made in Germany. But this doesn't mean that delivery times are longer or that there is extra paperwork.

Leading logistics providers with innovative supply networks ensure maximum transparency, speedy customs processing and a simple delivery process – worldwide!



TREATMENT CONCEPT



JOIN OUR FREE PARTNER PROGRAM

Are you interested in using BIORTHOSIS® successfully in your offices? The process is easy and straightforward. Simply contact us and we will tell you the fastest way for you to become a BIORTHOSIS® dentist. It's a partnership with many benefits:

- **Listing as a BIORTHOSIS® partner in the global sales network**
enables additional customer contacts via BIORTHOSIS® website
- **Transparent and personal project management**
Cost control and transparent processes provide security.
A personal contact is available for every partner dentist.
- **Future-oriented partnership**
Ongoing system enhancements provide for continuous process optimization that benefits both patients and practitioners!

BIORTHOSIS® PARTNERS



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