

GENTLE MIMI® IMPLANTATION WITH FIRST-CLASS DENTAL IMPLANTS

Champions-Implants GmbH implantology guide

- ★ Innovative and gentle keyhole surgery
- ★ 25 years of success
- Medicine innovations award in Dubai (2013)
- ★ More than 500,000 implantations worldwide
- ★ Immediate implantation in just one session:
 - "A sick tooth is replaced by a healthy one: the implant"
- ★ Premium implants "Made in Germany"



Priv.-Doz. Dr. med. dent. Armin Nedjat

Known author of about 350 scientific articles, especially about $\rm MIMI^{\scriptsize \odot}\textsc{-}Flapless$

Known lecturer during Implantology conferences in German, English, and French

Many study trips (in Germany and abroad, including Harvard/Boston, San Antonio/Texas, and Madison/Wisconsin/U.S., Paris, Rome, Barcelona, Stockholm, and Dubai/UAE)

Professor at the Jiao Tong University, Shanghai

From 2010 – present President of "VIP-ZM/Verein der innovativ-praktizierenden Zahnärztinnen/Zahnärzte e.V." (association of innovative-practicing dentists)

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Responsible: Dr. Armin Nedjat

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While it would be ideal if everyone kept all of their own teeth for a lifetime, the reality is that many people will experience tooth loss.

During their lifetime, most people lose several or even all their teeth because of an accident, caries, periodontitis (inflammation of the gum) – or an absence of teeth can be caused by a congenital genetic aplasia.

Missing teeth have been restored with a classical partial or full prosthesis, a bridge, and for several decades with a dental crown supported by one or more dental implants.

There are different implantation methods, and the MIMI®-Flapless method has become the golden standard in the field of Dental Implantology and Prosthetics. This implantation is performed without incision, bleeding, and suture.

I was proud of the Medicine innovations award I was given in Dubai in 2013 for this patient-friendly keyhole surgery method.

This guide, given by your certified dentist team, will introduce you to the MIMI®-Flapless treatment and its advantages. However, this should not and cannot replace an intensive consultation with your dental office.

Best regards,

Priv.-Doz. Dr. med. dent. Armin Nedjat Champions-Implants GmbH | CEO Developer of MIMI9-Flapless Medicine innovations award, Dubai 2013 Diplomate ICOI

MISSING TEETH LEADS TO PROBLEMS

In addition to the purely aesthetic reasons for a prosthodontic treatment for a dental gap – attractive teeth play an important role in one's appearance – there are also tangible medical reasons for a prosthodontic restoration.

For instance, the adjacent teeth can shift to a dental gap. The antagonist can grow in the dental gap. This may lead to a mastication dysfunction, orthopedic (hip) pain and poor digestion because "health begins in your mouth!"

To understand why this treatment is important, you should consider dentition as a whole:
The teeth, the muscles, and the jaw joints are connected and influence each other. If just one tooth is missing, muscles can tighten, which may lead to chronic headaches. Dental gaps can also cause patients to suffer pain in the face, tinnitus ("buzzing in the ears"), dizziness, tension in the neck, and back and hip pain.

Furthermore, a dental gap does not only cause pain, it can also lead to the loss of more teeth (domino effect).



WHY DENTAL IMPLANTS INSTEAD OF PROSTHESES?

Dental implants are artificial roots, usually in the shape of screws, which are implanted into the jaw bone (lat. "implantare") to replace missing teeth. The implants provide support for fixed prosthodontic restorations such as single crowns or bridges, or they can allow removable prostheses to be securely anchored. Dental implants have been used successfully for about 40 years. Meanwhile, they have been routinely used in the day-to-day work of many dental offices. Every year, more than 1,000,000 implants are inserted in Germany alone, and their use continues to grow worldwide.



A blade implant in the beginning of Implantology \dots



... by comparison a premium Champions (R)Evolution®

NOT ALL IMPLANTS ARE THE SAME!

Since dental implants have been placed for a long time, various implant systems (some of them are no longer on the market) and implantation methods have been developed.

For 25 years, the MIMI®-Flapless method has become commonplace in the field of dental surgery. It is comparable to endoscopic-internal/orthopedic surgery according to the keyhole surgery method (cardiac valve, stent, gall bladder, caecum, and knee joint surgery).

So, not all implants are the same. There are two implantation methods:

Conventional Implantation Method (CIM)

Minimally Invasive Implantation Method (MIMI®-Flapless)

Before getting into the MIMI®-Flapless method, we are describing the CIM method:

CONVENTIONAL IMPLANTATION METHOD (CIM)

The CIM treatment takes several months up to one year in several sessions, especially when complicated bone augmentations are necessary.

Following CIM, bone is exposed and sutured after implant placement. Of course, this intervention can lead to an infection (inflammation), swelling, bruises, and pain.

During the prosthetic phase (some months after the implant had "healed"): under local anesthesia, the mucosa is surgically cut open, the implant "exposed" and the mucosa "formed". It is rather complicated to make an impression (among others with X-rays and "open impression"). The implant head is set, on which the prosthodontic restoration is fixed.

To sum up, the conventional implantation has the following disadvantages:

- At least two to four sessions or surgeries are needed, and usually the jaw bone has to be exposed once or several times
- Long timeframe of up to one year
- High costs of the dental material and equipment

Not an exceptional case: view of a case after a conventional implantation





With CIM, the surgeon intervenes under direct visualization of the jaw bone. For this, the gum is incised and reflected, and the periosteum, a membrane covering the bone, is detached.

Only then is the drilling performed in the jaw bone. Then, the gum incl. the detached bone skin (periosteum) is sutured.



With MIMI®-Flapless, a small cavity is drilled through the gum in the jaw bone in order to place an implant. Thus, crucial structures are preserved. Since the bone skin is not detached, the jaw bone can be well nourished.

MIMI®-FLAPLESS — MINIMALLY INVASIVE IMPLANTATION METHOD

MIMI®-Flapless differs considerably from the CIM in its organization, surgical intervention time, and the prosthodontic concept.

MIMI®-Flapless is based on studies on bone physiology and current Prosthetics.

In Medicine, "minimally invasive" means surgical interventions that hardly injure the skin and the soft tissue.

Today, heart, gall bladder, and hip and knee surgeries are performed minimally invasively as well because only small incisions (or no incisions at all) of the soft tissue cause little pain after surgery – associated with a quicker recovery and mobilization. These findings in surgery inspired dental implantation 25 years ago. Meanwhile, the MIMI®-Flapless method has become the "gold standard" in the field of Implantology worldwide.

A MIMI®-Flapless implantation is completed in a few minutes in one session.

As a rule, an incision of the mucosa (gum) is not necessary.



A MIMI®-Flapless implantation can be performed in any "regular" dental office. A dental extraction is more invasive than a MIMI®-Flapless implantation.



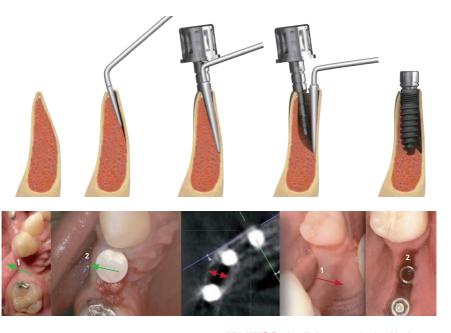
Comparison Between the Treatment Time of the CIM Method and the MIMI®-Flapless Method. While treatment using the MIMI® method is usually completely finished 2 to 10 weeks after implantation, the CIM treatment can take up to 12 months- provided that no bone augmentation is necessary, which would extend the treatment time even more.



MIMI®-FLAPLESS II ALSO FOR NARROW JAW BONE

MIMI®-Flapless means little pain and fast regeneration after implantation. The MIMI®-Flapless II method allows treatment and implant placement in cases of insufficient bone substance caused by bone loss (atrophy). A MIMI®-Flapless implantation can be performed with as little as 3 mm of horizontal bone availability (width) and 4 mm of vertical bone availability (height) in the upper jaw and 6 mm of vertical bone availability (height) in the lower jaw. Implantations done with MIMI®-Flapless do not require a complicated, costly and painful bone augmentation in most cases

This treatment broadens the horizons of patients who wear removable prostheses. Now, an implant-supported prosthesis can even be fitted in case of bone loss – without a complicated and painful bone augmentation.



With MIMI®-Flapless II, the narrow alveolar ridge is laterally expanded and widened. You can see that the alveolar ridge (1) was widened (2) – in a few minutes in a painless and short session.

COMPARISON BETWEEN CIM AND THE MIMI®-FLAPLESS METHOD

CIM METHOD



MIMI®-FI API FSS with Champions-Implants



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Often associated with bone augmentation with non-autologous material or with autologous bone that does not originate from the implant site.

Higher inflammation risk

Painful

Only suitable to a certain extent for smokers

Expensive material and consumption

Higher dental implant loss rate during the healing phase

Immediate implantation (tooth extraction and implantation in one session) is only possible to a certain extent.

As a rule, the treatment takes: 6-8 months in the upper jaw 3-4 months in the lower jaw

Just one short surgery

Only a minimal bone volume necessary and/or MIMI®-Flapless II with autologous bone from the implant site (widening of the autologous jaw bone)

Very little risk of inflammation

Nearly painless or even completely painless

Also suitable for smokers

Far less costly material while the salary for dentists remains the same

Very low dental implant loss rate caused by bacterial inflammation - calculated from the time of implantation!

Immediate implantation is possible and even recommended.

As a rule, the treatment is completed: In 2-3 months in the upper jaw and lower jaw

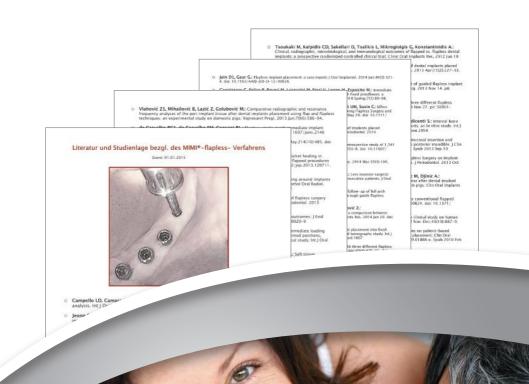
No immediate loading

Immediate loading possible at the discretion of the dentist

Rotation speed of cylindrical drills with water cooling: 400 to 1500 rpm. Due to the high rotation speed, there is a risk of overheating of the bone, also under water cooling

Rotation speed of the conical triangular drills (also possible without water cooling): 70 to 250 rpm

SCIENTIFIC STUDIES SHOW THE SUCCESS AND RELIABILITY OF THE MIMI®-FLAPLESS METHOD



MIMI®-FLAPLESS IMPLANTATION

In the pages that follow we will show you how a MIMI® procedure works, step by step.

The actual implantation is not complicated, and you will feel almost no pain after surgery.

ANAMNESIS AND CONSULTATION

Before beginning any treatment there is always a consultation. First, your dentist will discuss implants in detail, but also alternative therapies, such as bridges or partial dentures. Then, during the anamnesis, the dentist will ask you if you have any other diseases or pain in the mouth and jaw in order to find out whether there are contraindications for implantations in general or in this particular case.

In the treatment room, the dentist checks the adjacent teeth and the antagonists (opposing teeth/teeth in the other jaw) and takes an X-ray (two-dimensional picture) and eventually a cone beam (three-dimensional X-ray picture) to assess the condition of the jaw bone. The condition of the jaw bone is critical to the healing process and the subsequent durability of the implant.

If the dentist decides that an implantation is suitable for you, he or she will implement health plans and costs, which you have to hand in to your health insurance company, also as a private patient. Finally, you can agree on a date for surgery with your dentist.



With an X-ray image (OPG-panoramic tomographic image or cone beam X-ray image) planning is performed.



Placing an implant in an edentulous upper jaw In this picture you see that the implantation is performed bloodlessly without incisions.

MIMI®-FLAPLESS-IMPLANTATION WITH CHAMPIONS® —THE PERFECT COMBINATION

The implantation procedure just takes a few minutes under local anesthesia. A regular tooth extraction can be more complicated than a dental implantation. Many patients who are treated using MIMI® can resume their daily activities the next day.

With MIMI®-Flapless, the periosteum is not detached as is the case with a conventional implantation.

After anesthesia, a small bone cavity is drilled through the gum. Then, the slightly conical implant is inserted with controlled force, allowing bone to be condensed. Since the diameter of the implant thread is wider than the bone cavity, surrounding bone is "laterally condensed". In this way, the implant achieves "primary stability", which means a stable anchorage in bone.

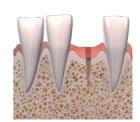
With MIMI®-Flapless, very minor or no injury is caused to the periosteum (membrane which covers bone).

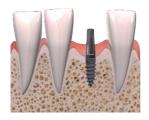
















AFTER IMPLANTATION

After MIMI®-Flapless implantation, you should rest during the day and take painkillers, eventually accompanied by antibiotics as recommended by your dentist. In general, you can resume your daily activities the next day.

The Champions implants are placed so that they achieve sufficient primary stability. They are not yet "stable" in bone because they are not grown in. As is the case with all titanium and ceramic implants, stability becomes weaker during the first 3 weeks after surgery – the chart shows the osseointegration process (the implant fusing with bone) within the first 75 days. The stability value falls by 40% until the 21st day directly after implantation. After about 3 months, the implant is completely integrated and can be loaded like a real tooth.

It is the case with each implant, which is associated with bone remodeling, allowing bone renewal.

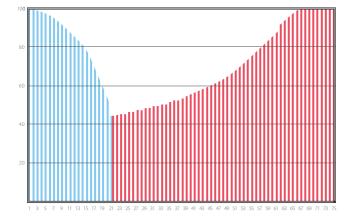
AVOID OVERLOADING IMPLANT

During the first 8 weeks after implantation, you should participate actively to ensure good integration of the implant. The implant should not be laterally loaded. However, axial longitudinal loading (in the direction of the jaw bone) does not harm the implant during its integration.

Please note that a part of the inserted implant can stick out by about 8 mm from the gum. You should avoid applying lateral pressure to this implant part or playing with it with your tongue because otherwise the implant risks becoming loose.

A post of the one-piece implant extends above the gum (see picture above), while that is not the case with the two-piece implant (see picture below).







The chart shows how the implant is integrated during the first 3 months: during the blue phase the stability becomes weaker and during the red phase, the stability increases until the final ingrowth of the implant.

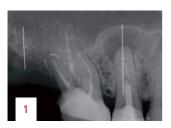
IMMEDIATE IMPLANTATION

Many people are wondering about when the implant should to be placed.

According to scientific studies, the best time of implantation is right after dental extraction. A "delayed immediate implantation" is an implantation up to 4 weeks after tooth extraction.

In this way, soft and hard tissue can be preserved. Bone loss remains minimal or can even be completely avoided after a tooth extraction.

Your dental office will inform you about current implantation methods.



Initial situation: edentulous space in site 17, the teeth 16 and 15 could not be preserved (1). In just one session the teeth were extracted carefully. Then, 3 Champions implants were placed carefully (2).

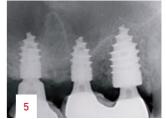
After 3 months, the implants were restored with Abutments (3) and the final ceramic crowns (4).

X-rays after 4 months (5)









CHAMPIONS-IMPLANTS: QUALITY MADE IN GERMANY

The Champions® implants and accessories are manufactured in well-known production plants in Germany.



"One of the best surfaces"

Study at the University Clinic in Cologne 2010

"Bacteria-resistant micro-gap"

Zipprich-Study at the University of Frankfurt 2012

"Regio-Effekt" Award

Mainz 2010

Medicine Innovations Award

Dubai 2013

> 500,000 Implantations

> 4,000 clinics & dental offices



CHAMPIONS®-IMPLANTS IN THE PRESS

This unusual placement of an implant in each of two patients in an airplane in 2010 aroused wide interest in the public concerning MIMI®-Flapless Implantology.

This implantation was broadcast on the radio and on television and published in newspapers.

THIS IMPLANTATION WAS PERFORMED TO ACHIEVE THE FOLLOWING GOALS:

- Demystify Implantology
- Democratize Implantology by integrating Implantology in the routine dental care in the "regular" dental office...
- Show that Implantology is accessible to any dental office!







YOU HAVE YOUR OWN FUTURE AND HEALTH IN YOUR HANDS!

Implants are a great help for all patients whose uncomfortable prostheses have kept them from enjoying life to the fullest for years. With implants a palatal plate may no longer be necessary, and patients once again can take pleasure in a delicious meal with no discomfort or interference with taste.

Many patients find that implants look like natural teeth and that they are the right solution to protect bone and healthy adjacent teeth.

Even if perhaps expenditures are higher, with implants life is more enjoyable, health can be improved, and expensive repair costs can be prevented.

Please do not hesitate to contact the certified Champions® dental office/clinic if you require any further assistance.

You can smile again!

IN A FEW WEEKS THANKS TO THE PREMIUM CHAMPIONS® IMPLANTS, INSERTED USING THE MIMI® METHOD!

Quality of life with fixed teeth!

10

frequently asked questions about MIMI®-Flapless



2s there an age limit to dental implants?

In fact, old age is not a barrier to having dental implants. In the press, on the radio and on television you probably have heard of the 99-year-old patient Gerda B. from Munich, the oldest patient in Germany who was treated with MIMI®-Flapless. In 20 minutes, 4 implants were placed

to fix a removable denture. This case shows that the elderly can also undergo an implantation, which can improve quality of life. However, an implantation is not recommended before bone growth is completed (completed at the age of 16–18 years).



How long de Champions® dental implants last?

The implants are designed to last a lifetime. Regular prophylaxis and check-ups are recommended (2–3 times / year). In case of damage of the prosthesis or crown, the latter can be repaired or replaced without any problem.

3 S the MIMI®-Flapless method safe?

The method has been successfully applied for 25 years. International scientific studies have shown the efficiency of this method. Current studies can be made available by your dental office.

What ist the best time for an implantation?

After a tooth extraction, the best time for an implantation is in the same session as the extraction! You will receive local anesthesia one time, and a second intervention will not be necessary a few months later. You don't leave the dental office with an edentulous space but with a temporary tooth on the implant. After

2–4 months, the final prosthodontic restoration can be fitted. From a medical point of view, the immediate implantation is beneficial and ensures hard and soft tissue preservation like at the time of the tooth extraction. The longer you wait after extraction until you place the implant, the more bone loss can occur.

5 2s the implant placement painful?

No!! Many patients treated with MIMI®-Flapless reported that they had not experienced pain. Contrary to the conventional method, those several days of swelling and pain are not observed after the MIMI®-Flapless implantation

in many cases. Most patients can resume their daily activities the next day. As a rule, your dental office prescribes an antibiotic medication to take during a few days.

How long does the implant placement take?

The implant placement takes a few minutes under local anesthesia, which you know from other treatments such as filling restoration, root canal treatments, or tooth extraction. After the intervention or some weeks after it, usually at least 2 impressions of the mouth situation are taken to fit the prosthodontic restoration.

To show the public, the dentists and the patients that the implantation is accessible to any dental office without the need of a high-tech dental equipment, the founder of MIMI®-Flapless placed an implant in each of 2 patients in an airplane (see also page 17).

Does health insurance pay for dental implants?

The statutory health insurance covers part of a treatment of an edentulous space. That is why the coverage for an implant-supported prosthodontic restoration is the same as the one for a prosthesis or a bridge without implants. For private patients, the benefits depend on the chosen policy.

Less bone quantity is needed for a MIMI®-Flapless implantation than for a conventional implantation. Why?

Following the MIMI®-Flapless method, we work with Nature and not against it! With the CIM method, only the cylindrical drills are used, which produce many bone chips.

Using the MIMI®-Flapless method, we use conical triangular drills, in particular also for treating a narrow jaw bone. This type of drill produces very few bone chips and allows bone to condense laterally.

Specialists call this bone widening technique a distraction.

What material ist the implant made of? Are there risks of the body rejecting it?

Champions® implants are made of biocompatible titanium, grade 4 (99 % of titanium), which is accepted by the body in most cases. In case of doubt of titanium tolerance, the doctor can send blood tests to special diagnostic laboratories (for example www.imd-berlin.de). The costs for these tests amount to € 150. Now Champions® zircon

implants, which are made of patented toughelastic pZircono, are available as an alternative to titanium Champions®. Your dental office team will inform you about whether these implants are indicated in your case.

Titanium Grade 4 Champions® implant

Should each missing tooth be replaced by an implant?

Naturally, for 14 teeth, the number of roots is the following: there are 18 roots in the lower jaw and 22 roots in the upper jaw. An implant is an artificial root.

Following the recommendations of the Implantology Consensus Conference (professional association of dental surgeons/"Berufsverband der Oralchirurgen e.V. BDO", federal association of dental implantologists in Europe/"Bundesverband der implantologisch tätigen Zahnärzte in Europa e.V. BDIZ EDI", the German society of Dentistry and Maxillofacial Surgery/"Deutsche Gesellschaft für Mund-Kiefer-Gesichtschirurgie e.V. (DGMKG)". the German association of Maxillofacial Implantology/"Deutsche Gesellschaft für Implantologie im Zahn-, Mund- und Kieferbereich e.V. (DGI)", the German Association of Dental Implantology/ "Deutsche Gesellschaft für zahnärztliche Implantologie e.V. DGZI"), each tooth should be replaced by an implant:

The **minimal** number of implants/teeth is the following:

In the upper jaw, a fixed denture is to be supported by: 8 implants/teeth

In the upper jaw, a removable denture is to be supported by: 6 implants/teeth

In the lower jaw, a fixed denture is to be supported by: **6 implants/teeth**

In the lower jaw, a removable denture is to be supported by: **4 implants/teeth**

In certain cases the dentist must decide if it's possible to use less implants for your restoration.



FOR YOUR QUESTIONS & NOTES

FOR YOUR QUESTIONS & NOTES

FOR YOUR QUESTIONS & NOTES



AND YOU CAN SMILE AGAIN THANKS TO THE CHAMPIONS® IMPLANTS, INSERTED USING MIMI®-FLAPLESS

- Innovative the system has proven successful for 25 years
- Almost painless gentle keyhole surgery
- Also suitable for patients at risk
- Efficient and affordable
- Also suitable for elderly patients

Quality of life with fixed teeth!

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Your certified Champions® dental office



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