

Ask your dentist for  
the other Friadent brochures:



Naturally invisible –  
implants in single tooth gaps!



## Dental implants. One hundred percent yourself!

### Introduction 3

**Patient experience**  
*"Finally normal teeth again"*  
Matthew, 21 years old, student 4 - 5

**Treatment**  
A dental implant is something for me too! 6

What can I expect after  
the initial consultation? 6

What is implant placement really like? 7 - 9

**Frequently asked questions  
and answers on implants  
from A to Z** 10 - 19

**Dear patient,**  
Would you like an "invisible" solution for your lost tooth? Do you want to forget the gap forever? In brief: do you want the best solution and are you interested in an implant or have you already asked your dentist about the options?

We congratulate you on your decision, it is the first step to being able to show your teeth again without embarrassment and smile naturally. Original Friadent dental implants are small, highly developed and extremely high-performance titanium screws. They are inserted into the jaw to replace the natural roots of the teeth and become fully integrated into the bone. Then the crown can be fixed to the implants invisibly and permanently. The new root cannot be distinguished from the neighboring teeth.

You may remember Matthew from the poster in your dentist's waiting room. He lost an incisor during exercise. But his dentist could resolve the small problem naturally and inconspicuously with an implant. Since then Matthew smiles again and does not think about his teeth any more. To give you an idea of how others experience the time before, during and after implant placement, Matthew would like to tell you about his experience. After that this brochure will tell you all you need to know about these tiny high-tech tooth roots and important information on the probable sequence of your treatment: What you will have to do and how your dentist can support you.

*But first we will hear from Matthew ... Read it yourself:*

## "Naturally invisible — implants in single tooth gaps!"



Matthew, 21 years old,  
after a baseball hit him in  
the mouth.

### Matthew, 21 years old, student

I have never had a problem with my teeth. But when I was just 20, that changed in seconds. During baseball practice I was careless and a ball hit me. It hit my incisors at full speed. I felt an incredible pain and realized that my tooth was broken. What did it look like? My upper lip was throbbing and bleeding. My first thought was that I would be sitting in class at the university tomorrow with a big gap in my teeth. What would that look like? After the first shock had worn off, I went to see my dentist at once. He took an x-ray and found that I had also broken the root of the tooth. That made it impossible to save the tooth. What could I do now? I could not go to the university with that big gap in my teeth. Also not with an obvious denture. But the dentist reassured me and recommended an implant. He told me that today an implant is the most advanced solution for a gap in the teeth. The implant acts exactly like a tooth root and a crown looking exactly like a natural tooth is fitted to it.

The gap can also be closed with a fixed bridge. But this could also damage the neighboring teeth. They would be ground and overcrowns fitted to fix the bridge in place. I was not very happy with this idea.

There is also the possibility of the bone collapsing under the bridge component because there was no tooth root. There would always be a cavity in the gum in this case.

The decision to have an implant was therefore a quick one. On the following day I had an appointment for an x-ray examination at the dentist. And two days later the implant was placed under local anesthetic. I was a little nervous, but the dentist was right: there was some vibration, just like during drilling, but no pain. Now I just had to wait until the implant was healed in the bone. That took about three months. The gap was closed with a temporary bridge glued to the adjacent teeth from behind during this period. It was virtually unnoticeable. However, I was pleased when it was over and the final crown had been made. The dental technician was also at the dental practice to make sure that the color and shape matched my natural teeth. A week later my dentist fixed the crown to the implant. I was astounded. I could not see any difference from the neighboring teeth — not the tooth or the gum or the bone. And so far nothing has changed.



Matthew is smiling again with his  
implant-borne tooth.

## Treatment

### A dental implant is something for me too!

But will it stay in my jaw? And will the procedure be as simple for me as it was for Matthew? You have certainly had these or similar questions in recent days. But don't worry. Friadent implant systems are top quality both scientifically and technically, they are "made in Germany". With their special surface and shape they have outstanding healing rates and millions of them have been successfully implanted. Your teeth will be securely fixed to them.

A Friadent implant can be inserted immediately after extraction of the tooth and also at any time after that. When conducted by an experienced dentist this minor procedure is a safe routine procedure. Your dentist has certainly explained the surgical procedure in the consultation appointment. However, to allow you to review this information at leisure and so you will know exactly what is to be done once you have decided to have an implant, we want to give you some examples of the specific steps again.

### What can I expect after the initial consultation?

In the next few days your dentist will probably send you an estimate of the treatment costs with the exact costs for your individual implant treatment. You will submit this estimate to your health insurance fund to find out your share of the costs or how much you will be refunded for the treatment.

Once the costs have been settled and you have decided to have the dental implant, your dentist will discuss any treatment of your natural teeth or the gum that you may require before implant placement. Then the actual implant placement will be planned using x-ray images and plaster casts of your jaw. Sometimes computed tomography (CT) will be necessary to assess the bone and the position of other important structures.

Once preparation and planning are complete, you will be able to have your implant placed at the next appointment. You can eat a little up to one hour before the surgery — however, your dentist will discuss this with you again. You are best advised to follow the dentist's recommendations exactly.



The first step to implant-supported teeth: consultation with the dentist.



X-rays are used to plan the implant placement.

### What is implant placement really like?

#### Placing the dental implant

For one dental implant the operation will not usually take any longer than half an hour. The dentist works so atraumatically and the procedure is so safe that the implant can be inserted in an outpatient procedure and generally in one treatment session. If the implant is placed in a healed tooth position a long time after tooth extraction, the implant dentist will first have to uncover the gum at the planned implant position. Then a precise small implant site is drilled into the bone and the tiny implant is screwed into position. It will generally have to heal without load for a few months in the bone. Therefore, the gum over the implant is sutured and the gap is first closed with a temporary denture. You will be able to go home from the practice or hospital with a smile and no gaps. Because you should not drive after the anesthetic, have someone pick you up or go home in a taxi. You should also not eat or drink until the anesthetic has worn off.



One single tooth is missing.



First the dental implant is placed, then the crown.



A temporary denture is placed during the healing phase.



There is no difference from natural teeth.

### Healing of wounds

The gum will normally heal very fast and almost completely without pain. After two or three days you will have an examination to make sure all is going well and the sutures can be removed about 10 days later.

### Healing of bone

During the bone healing phase the bone cells are deposited directly on the specialized surface of the dental implants and the implants are gradually integrated into the bone. The implant becomes an integral part of your jaw. This painless process lasts four to six months in the upper jaw. The bone in the lower jaw is generally harder so the implant is more firmly fixed from the start. It normally only takes three

to four months until the implant is healed. But don't worry. Until then you have the temporary denture. And now temporary dentures can be fabricated to such a high standard that they are virtually indistinguishable from natural teeth. You can eat normally at once with a little care.

### Implant uncovering

When the healing process has been completed, the gum above the dental implant is opened again. The dentist now places a gingiva former on the implant to shape the gum to lie as close to and as well-shaped on your new crown as the natural teeth. Perfectly natural and no visible gaps. Finally an impression of your jaw is taken to form the basis for fabrication of the crown. Then the dentist replaces the temporary denture. But don't worry: you will never leave the practice at any time without teeth.

### Placing the crown

After about two weeks the gingiva former can be removed and the final crown can be placed. It is fixed tightly and invisibly to the implant and no one will notice the difference from your natural teeth, not even you.

#### Exception: immediate loading

If the dentist decides that your bone situation is optimal, it may also be possible to subject the implants to so-called immediate loading. This means that a top-quality temporary denture is attached to the implants as soon as they have been inserted. You have your implant and your tooth sit firmly again the same day. Talk to your dentist about the options available. He will also explain what you will then have to remember.

## Frequently asked questions with answers about implants from A to Z

Could dental implants be the solution for you, too? Are you interested in knowing more about the exciting possibilities? The most frequently asked questions and answers about implant treatment are collected on the following pages by keywords from A to Z.

### A Age

#### Is there a minimum age for implants?

Bone growth should be completed at the time of implant placement. It can be assumed that this is complete about the age of 18 years. Girls generally finish growing earlier than boys. In case of doubt the state of the bone can be checked by an x-ray examination of the carpal bones.

#### Airport security check

#### Will metal detectors beep at my dental implant, such as during security checks at an airport?

No, don't worry about it. Implants are not magnetic and they are also much too small to trigger the

detector. And if the detector ever does beep at your implants, you will have your proof of implant placement that will explain the situation quickly and easily.

#### Allergy

#### Is it possible to be allergic to dental implants?

Implants have been available for more than 40 years. Over this long period no allergies to titanium implants have become known. Titanium has no allergenic components and is completely neutral in the body. Among the materials used for crowns ceramic has been proven to be the most compatible to the body. The risks of allergy vary for metals and plastics. It is best to ask your dentist which material is best suited for you personally.

»» See also "Implant material" at I.

### Anesthetic

#### Is a general anesthetic really not necessary for implant placement?

No. Local anesthetic can completely prevent any pain in the jaw. When the dentist prepares the implant site in the bone and inserts the dental implant, you will feel vibration and a slight pressure but no pain. For most patients the procedure feels like a normal treatment for caries, which is also conducted under local anesthetic. However, if you still want to "sleep" during the treatment, the dentist also explains the implications of a general anesthetic.



There are no age limits for implants.



Airport security check: detectors rarely respond to implants.

### B Beautiful teeth

#### I will be receiving one single implant-borne crown, but I would also like all my teeth to be whiter or more attractive. What can the dentist do here?

The dentist can frequently bleach darker-colored teeth. Unattractive front teeth can be coated with plastic or fine ceramic, referred to as veneers. The crown for the implant will be brighter from the start or the new tooth shape will be modified accordingly. Ask your dentist. There is a solution for almost every problem.

### C Ceramics

#### What material is used for crowns?

Most crowns and bridges are metal or metal alloys and are veneered with ceramic in a color to match the natural teeth. The high-quality esthetic alternative is porcelain. Zirconium oxide ceramic with its high strength is particularly suitable for implant-borne dentures. It is suitable for single-tooth crowns, and also for larger bridges and it reflects the light identically to the natural tooth enamel. This means that the denture is virtually identical to the natural teeth.

### Consultation

#### How can I prepare for the consultation?

You should be thoroughly informed before the consultation. This brochure contains all the important basic information that you should know. Take advantage of the consultation to ask all the questions you have. Make a list of questions beforehand so you don't forget any. Don't forget to inform the dentist of any other diseases and medications that you take regularly. Reminder notes will also be helpful here.



What do dental implants cost? The health and cost schedule has all the information.



The most important dental care utensils: toothbrush, dental floss and interdental brush.

## Cost

### How much will a dental implant cost?

The cost varies depending on the extent of the treatment. A general estimate for an implant-borne crown including all medical and dental services would be in the range of 2,000 euros. The estimate of work required and the associated costs, which will be included in the treatment and cost plan, will be given to you before the start of treatment by your dentist.

## D Day surgery procedure

### Is the implant placement really a day-surgery procedure?

Yes. The dentist works atraumatically and safely so multiple implants can generally be placed in an outpatient procedure in one single session.

## Dental care

### How do I care for my implant-borne teeth?

Implant-borne teeth not only look like natural teeth. They can be cleaned just as easily with a tooth-brush — including an electrical toothbrush — and tooth paste. When cleaning implants the spaces between the teeth and the transitions to the gums are particularly important. These

areas are colonized by bacteria that attack the gum and over time they can also attack the jawbone around the implant. This can be prevented with dental floss or small interdental brushes. The prophylaxis team at your dentist will show you how to handle the instruments and will provide professional tooth cleaning at regular intervals — such as every three months. This will remove stubborn plaque completely and your teeth will look as good as new. You should make regular prophylaxis appointments with your dentist. It's worth it.

## Diabetes

### If I am a diabetic can I still have a dental implant?

Yes. However, your diabetes must be well controlled. Diabetes that is poorly controlled or untreated

may adversely affect the healing processes for metabolic reasons. If there is any doubt the dentist should consult your doctor.

## Durability

### How long does a dental implant last?

After the healing phase a correctly inserted quality implant will be more resistant to many influences than the natural root of the tooth. A titanium implant with the optimum prosthetic load will not break. And it is immune to caries. Consistent oral hygiene will keep your gums and the implant site healthy. With appropriate care an implant can last a lifetime.



Enjoy life again with implants.



The pure titanium used for manufacturing dental implants is highly compatible to the human body.

## F Food

### Can I bite and eat normally with my implant-borne tooth?

With your implant-borne tooth you can eat, bite, talk and laugh just as with your natural teeth. Your tooth is attached so firmly to your implant that you can feel quite secure.

### Foreign body feeling

#### Will implant-borne teeth feel like my own or will I feel as if I have a foreign body in my mouth?

Implant-borne teeth will feel quite natural when you are talking, eating and laughing. You won't feel any difference.

## I Implant material

### What are dental implants made of?

Friadent implants are pure surgical-grade titanium. The material has proven to be so good that now 99 percent of all dental implant systems are now made of pure titanium. It is extremely stable and is very compatible to the body. Titanium also becomes firmly integrated into the bone. These positive properties have been proven not only in implant dentistry but also in many other medical fields, such as prosthetic joints, for many decades. The silvery-gray color of titanium is also not a disadvantage, because implants — like natural tooth roots — are completely buried in the jawbone and are invisible. White implants of ceramic have also been available for some years. The first generations of aluminum

oxide ceramic were not strong enough to present serious competition for titanium. Current ceramic implants are now made of extremely stable zirconium oxide ceramic and are still in the testing phase. Titanium is still the gold standard of implant materials.

### Immediate implant placement

#### Can implants be placed immediately after removing teeth?

Yes, this is often possible today. The implant is placed in the fresh wound immediately after removal of a tooth. This is referred to as immediate implant placement (not to be confused with immediate loading of implants).

### Immediate loading

#### What exactly does "immediate loading" mean and does it apply to me?

The usual plan for implant-borne teeth includes an healing phase after they have been inserted. In this procedure the gap is temporarily closed with a classical temporary denture, which is normally attached to the neighboring teeth. However, in immediate loading new implant systems and methods are used that under specific conditions allow the denture or the temporary denture to be attached to the implants immediately. Patients receive their implant and have fixed, natural-looking teeth on the same day. Whether immediate loading is suitable for you will depend on the state of the jawbone and the position of the implants. Ask your dentist about the options.

## M Material

»» See "Implant material" at I.  
 »» See also "Ceramics" at C.

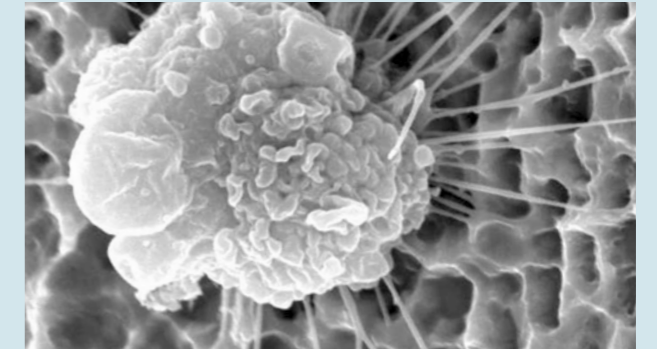
### Medication

#### Are there any interactions with medications?

This is possible with certain medications. For example, cortisone can change the metabolism and immune system of the body in such a way that problems with healing may be encountered. Anti-coagulation medications may cause serious hemorrhages during implant placement. If you are required to take medications regularly, you must discuss them with the implant dentist.



1 – 3 Friadent systems: the exact solution for every situation.



Microstructured implant surfaces promote healing.  
(The picture shows a bone-forming cell which has become attached to the implant surface.  
Magnification: 2000x)

## P Pain

### Will I be in pain after the procedure?

The gum will probably be sensitive in the first few days, but not bleed any more. Your cheek may swell for a short time and may feel uncomfortable. However, most patients will not even need a painkiller on the following day and can return to a normal life.

## Q Quality

### Are there differences in quality among dental implants?

Like virtually any product there are very high-quality dental implants and lower-quality models. For example, there are differences in the design of implants, particularly of their surface. The surface of an implant can be modified to improve the principally tissue-compatible properties of titanium, but they can also be reduced. Always have your dentist inform you of the characteristics of the implant that is to be used. Ask about long-term experience. Also ask about the long-term availability of replacement components in case your denture has to be renewed or modified in the future.

### Why can I trust Friadent implants?

Friadent implants are quality German products, whose design is based on decades of research, development and documented experience. They are the result of high-precision manufacture. Starting from the purchase of the raw material the entire production chain is subject to extremely rigid quality standards.

The range of products covers three systems with differently shaped implants in various sizes and lengths, so the dentist can select the exact type for your specific initial situation. All implants are made of pure surgical titanium and have a unique microstructured surface, which actively supports the healing process of the bone. The highly developed surface characteristics make it possible for bone cells to be deposited directly on the implant and form the new bone. Friadent implants offer the best conditions for opti-

imum healing and the formation of a permanent stable base for implants. Friadent systems also offer highly esthetic prosthetic solutions for every requirement and every initial situation. And if the denture fixed to Friadent implants ever needs to be replaced, you can be quite sure that your dentist will be able to obtain all the required components even years later and anywhere in the world.

## R Replacement and modification of the denture

### Can implant-borne dentures be replaced or, if more teeth are lost, extended?

Yes. The denture can be replaced or modified at any time. A Friadent single-tooth implant can be converted into an abutment for a bridge or prosthesis without difficulty, even after many years.

## Risks

### Are there any risks involved with implant placement?

An implant placement is a minor surgical procedure. Complications such as injuries to nerves and blood vessels during placement of dental implants are certainly possible. This is extremely unlikely these days with current advances in diagnostics and planning. When an implant is placed by a qualified dentist, the risks are no greater than when removing a wisdom tooth.

A sudden rejection reaction of a fully healed dental implant is also very unlikely. However, in rare cases the bone may not hold the implant firmly enough. In this case it cannot resist loading sufficiently and will most prob-

ably have to be removed under local anesthetic. In most cases a new implant can be placed in the same session if you wish.

### And if an implant becomes inflamed?

When detected early enough inflammations caused by bacteria can usually be treated successfully. If you attend regular appointments for dental care and prophylaxis at your dentist and also clean your teeth regularly at home, you are unlikely to be affected.



Safe implant placement with modern diagnostics.



Play sport again a few days after implant placement.



There is no difference from natural teeth.

## S Smoking

### Are dental implants advisable for smokers?

The long-term success rate of dental implants can be endangered by smoking. Discuss it with your dentist. The dentist can assess the risks in your case.

## Sport

### Can I still exercise and play sport after implant placement?

Exercise after implant placement is not a problem. However, if you take part in activities involving vigorous exercise, you should consult your dentist first. A few days of rest may be recommended to avoid affecting the healing process.

## W Work

### When can I go back to work?

Your dentist will most likely give you a certificate for a few days off work. However, you can usually go back to a normal life on the day after your treatment and back to work a few days later.

*»» See also under "Sport" at S.*

### Is there anything else I need to worry about?

In brief: no. Think of your implants as a natural part of your body. You can exercise, talk, eat, laugh and live as if nothing had happened. There is no difference from your natural teeth.

### The next step?

**Decide now in favor of the acknowledged best solution for replacing a single tooth and make an appointment with your dentist. Do it now.**