

Ask your dentist for
the other Friadent brochures:



As if nothing had ever happened —
implants for larger tooth gaps

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Dental implants. One hundred percent yourself!

Dear patient,

Do you want to put an end to your problems with gaps in your teeth and obvious or uncomfortable dentures? Do you want a relaxed and natural smile again? Do you want to be able to chew without problems again and are you interested in implants and have you already asked your dentist about the options?

We congratulate you on your decision, it is the first step on the way to showing your teeth proudly and without embarrassment.

Original Friadent dental implants are small but extremely robust titanium screws that the dentist can use to "make time run backwards". They are inserted into the jaw to replace the natural roots of the teeth and become fully integrated into the bone. Then the denture of your choice can be fixed to the implants invisibly and permanently. No one will detect any difference from your natural teeth. Not even you.

You may remember Ian from the poster in your dentist's waiting room. He lost two premolars in succession. The manager has decided to have two implant-borne crowns and in this way can avoid having a removable partial denture. Since then he has been able to go to his office with his normal self-confidence and feels years younger. To give you an idea how others experience the time before, during and after implant placement, Ian would like to tell you about his experience. After that this brochure will tell you all you need to know about these tiny artificial tooth roots and important information on the probable sequence of your treatment, such as what you will have to do and how your dentist can support you.

But first we will hear from Ian ... Read it yourself:

"Finally normal teeth again"



Ian, 47 years old, manager

At the age of 47 I had to have a premolar removed in my lower jaw. The root had previously been treated but it still became infected again and again. The problem was that the tooth was the last in the row. It also supported a bridge that replaced the tooth in front of it.

Ian has several teeth missing at the end of the row.

This means that I would have two teeth missing adjacent to each other. And there was no longer any tooth to which a bridge could be fixed. The dentist spoke of free-end edentulism and explained first that it could be closed with a removable partial denture. I was horrified. Would I have to insert my teeth every morning before going to a business appointment or to the office? Could I even speak normally with a removable denture? Would it show when I laughed? Many questions and embarrassing situations went through my head.

But fortunately there was another solution: dental implants. The dentist said that there were two different options: an implant at the end of the row of teeth would provide an anchor for a bridge. Two implants and two crowns could replace the two missing teeth and there

would be no difference in appearance from before the loss of the teeth. I decided to have the two single implants. They were inserted into my jaw under local anesthetic. That was not particularly easy where the bridge component sat because the bone below the bridge had not been loaded for a long time and it had atrophied greatly.

Four months later the implants were fully healed and integrated into the bone and the new crowns could be fixed to them. There was no difference from my natural teeth. I felt unbelievably relaxed and years younger. I finally had a perfectly normal row of teeth again just as when I was 28, before I received the fixed bridge. At that time implants were not as common as today. A pity, since without the bridge I might not have lost the second premolar.



Ian with single-tooth implants — as if nothing had happened.



The first step towards dental implant-borne teeth: personal consultation with the dentist.

Treatment

Implants are definitely something for me too!

Will they stay in my jaw? And will the implant placement for me be as quick and easy as it was for Ian? 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, because they are made in Germany. With their special surface and shape they have outstanding healing rates and millions of them have been successfully implanted.

Friadent implants can be inserted immediately after tooth extraction and also at any time after that. If there has been a gap in the teeth for a long time and the bone has become too thin or too narrow for insertion of an implant, it can be restored with bone from the body or a replacement material analogous to bone — and often at the same time as implant placement.

When conducted by an experienced dentist implant placement is today a very safe and uncomplicated routine treatment. Your dentist has certainly explained the surgical procedure in the consultation appointment.



Implantation is planned in detail on the basis of X-ray images.

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 in favor of a perfect smile again, we want to show you the specific steps again.

What can I expect after the initial consultation?

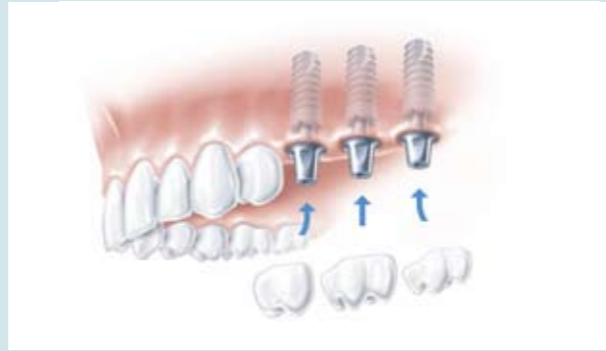
In the next few days your dentist will probably send you an estimate of the treatment costs with the exact costs for your individual implant treatment. You will submit this estimate to your health insurance fund to find out your share of the costs or how much you will be refunded for the treatment.

Once the costs have been settled and you have decided to have dental implants, 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 be able to assess the bone and the position of other important structures.

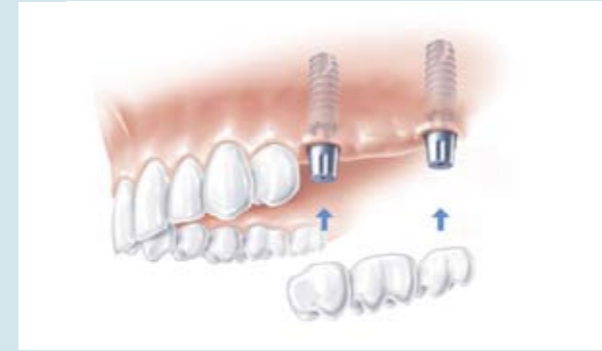
Once preparation and planning are complete, you will be able have your dental implants placed at the next appointment. Depending on the actual procedure you may be able to eat a little up to one hour before surgery — however your dentist will discuss this with you. You are best advised to follow the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



Several teeth are missing at the end of the row.



First of all, implants are inserted, followed by restorations with crowns.



Alternative: the implant-borne bridge.



The row of teeth looks completely intact.

What is implant placement really like?

Placing the dental implants

The minor operation will not usually take any longer than half an hour per implant. The dentist works so atraumatically and the procedure is so safe that all the implants that you need can be inserted in an outpatient procedure and generally in one treatment session. The dentist will open the gum at specific positions. The precisely fitted, small implant sites will be prepared in the bone and the small implants are inserted. In general, you will now have to allow the bone to heal for some months without loading it. Therefore, the gum over the implant will be sutured and the gap 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.

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 Friadent implants and the implants are gradually integrated into the bone. This converts the implants into 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 implants are 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. If you had a removable partial denture beforehand, it can also be used during the healing phase after a minor modification.

Implant uncover

When the healing process has been completed, the gum above the dental implants is opened again. The dentist places a gingiva former on the implant to shape the gum to lie as close to and as well-shaped on your new crowns 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 final denture. The dentist then replaces your temporary denture. But don't worry: you will never leave the practice without teeth.

Placing the crowns or the bridge

After about two weeks the gingiva former can be removed and your final crowns or your bridge can be placed. The denture is fixed to the implants. The screws are not visible, so no one can see any difference from the 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 implants and your teeth 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 Airport security check

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

No, don't worry about it. Dental 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 implants and dental materials?

Dental 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. Of the materials used for crowns and bridges ceramic has proven the most compatibility to the body. The allergy risks vary for metals and plastics. Let your dentist advise you what material is best for you.

»» 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 can also explain the implications of a general anesthetic.

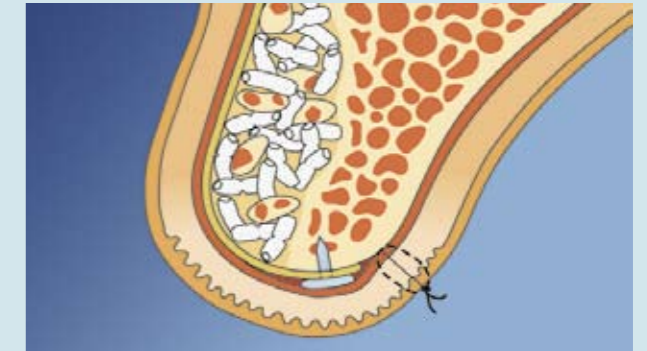
B Beautiful teeth

I will be receiving several dental implants, 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 crowns for the implants 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.



Airport security check: detectors rarely respond to implants.



Bone that has atrophied can be restored very easily. (Cross-section of upper jaw: the atrophied side of the jaw has been built up again by a special procedure. The bone is now wide enough for the implant.)

Bone grafting

When is bone grafting necessary?

If the jaw has no teeth and is not subject to the associated natural chewing load over a long period, the bone gradually atrophies. This is a similar process to that of a muscle that atrophies because it is no longer used. Certain bacteria can also destroy the bone. This is referred to as periodontitis — otherwise known as periodontosis —, an inflammatory disease of the periodontium. If the bone is weakened or thin and an implant cannot be placed, the dentist will recommend bone grafting. The bone is restored with autogenous bone or bone replacement material as atraumatically as possible. A mixture of both is often used. The grafting material is applied directly to the bone to widen or lift it depending on the situation. This is often possible during implant placement. However, in some cases a separate outpatient procedure may be required.

D Cardiac pacemaker

Could dental implants affect my cardiac pacemaker?

No. Dental implants have no electromagnetic effect. They cannot affect the operation of your pacemaker in any way.

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. You should also take advantage of the consultation to ask any questions that you might 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 all medications that you take regularly. You should also bring a note to remind you of this.



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 dental implants cost?

The cost depends on the extent of the treatment and the number of implants. A general estimate for an implant-borne crown including all medical and dental services would be in the range of 2,000 euros. An implant-borne bridge (for three missing teeth) would start at around 4,000 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 toothbrush — including an electric 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 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 will consult your doctor.

Diseases

Are there any diseases that would prevent implant placement?

Not really. If you have a serious general disease such as a cardiovascular disease, serious kidney damage, a tendency to hemorrhage or an impaired immune system, you should always inform the dentist beforehand. In some cases side effects of medications may affect the healing process, so the dentist should be informed of this in the first consultation. Your dentist will advise you of the options and assist you to make your own decision on the basis of your health profile.

»» See also under "Medications" at M.

Durability

How long does a dental implant last?

After the healing phase a correctly inserted quality implant will be more resistant to some 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 implants can last a lifetime.



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

F Food

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

With your implant-borne teeth you can eat, bite, talk and laugh just as you could earlier with your second set of teeth. Your teeth are firmly attached to your implants and you can feel quite secure with them.

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 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 silverygray color of titanium is also not a disadvantage, because implants — like natural tooth roots — are completely buried in the jawbone and are invisible. White dental 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 for implant-material.

Immediate implant placement

Can implants be placed immediately after tooth extraction?

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



Relax and enjoy life again with implant-borne teeth.

Immediate loading

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

The usual plan for implant-borne teeth includes a healing phase with no loading on the implants 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 implants 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 your dentist.

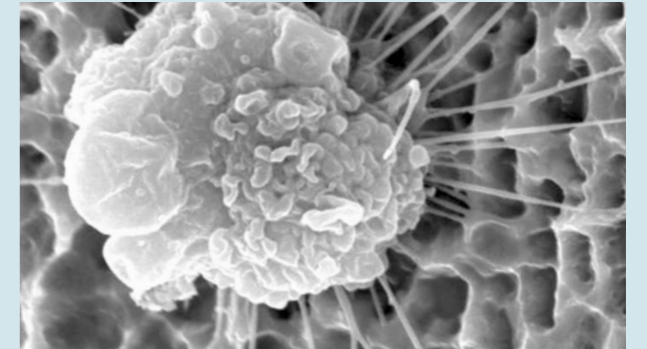
P Pain

Will I be in pain after the procedure?

The gum will probably be sensitive in the first few days, but will 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.



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)

Q Quality

Are there any differences in quality among dental implants?

Like virtually any product there are very high-quality implants and lower-quality models. For example, there are differences in the design of dental 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 the new bone and to form new bone. Friadent implants offer the best conditions for optimum healing and the formation of a permanent stable base for implants.

Friadent systems also offer extremely esthetic prosthetic solutions for every requirement and for 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 regardless of where you are 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 probably have to be removed under local anesthetic. In most cases a new implant can be placed in the same session if you wish.



Reliable implantation due to state-of-the-art diagnosis.



Fit for recreation again a few days after implantation.



Fit for work again after only a few days.



There is no difference from natural teeth.

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.

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. He can assess the risks in your case.

Sports

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 the 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 then go 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 that you would like to be able to smile completely care-free again and make an appointment with your dentist.