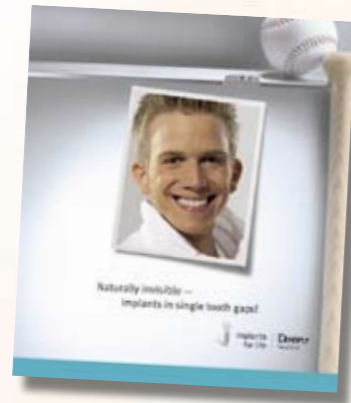


Ask your dentist for
the other Friadent brochures:



Life with bite!
Implant solutions for the edentulous jaw

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Patient experience

"I can enjoy life again"

Heather, 75 years old, retired

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Dental implants. One hundred percent yourself!

Dear patient,

Do you have problems with a loose full denture? Your denture is painful and in spite of padding still does not fit right? Are you interested in a solution with dental implants? And have you already asked your dentist about what options you have?

We congratulate you on your decision, it is the first step on the way to really enjoying the more pleasant side of life again!

Original Friadent dental implants are small but extremely robust titanium screws that are inserted into the jaw like an artificial tooth root. They become fully integrated into the bone and provide a stable base for your third set of teeth. As few as two to four implants will be enough to provide a firm base for a removable full denture. If you wish, your denture can also be permanently attached to the implants and it will no longer be removable. A bridge can be anchored to at least six implants in your jaw. But regardless of what you decide or have already decided: your denture cannot come loose unexpectedly and place you in an embarrassing situation. You will be able to eat, talk and laugh — in all situations.

You may remember Heather from the poster in your dentist's waiting room. At 75 years she made the decision not to live with her increasingly ill-fitting denture any longer. Heather had four implants inserted into her lower jaw to provide a firm base for her denture. Today she loves to go out and enjoy her freedom. To give you an idea of how others experience the time before, during and after implant placement, Heather would like to tell you about her experience. Then this brochure will not only tell you all you need to know about implants but will also give you specific information on the course of your treatment, what you need to do to start and how your dentist can support you.

But first we will hear from Heather ... Read it yourself!

"I can enjoy life again."



Heather, 75 years, retired

I have always had a sweet tooth. That is probably why I had problems with my teeth from an early age. They became fewer and fewer over time and my denture had to be adjusted or replaced again and again. When the last teeth in my lower jaw were gone, I thought that I would have some peace at last. I received a full denture with beautiful teeth. But unfortunately after some time it no longer stayed in place correctly. Often the denture

suddenly came loose while I was eating or talking or it made rattling noises. That was embarrassing. I could no longer bear to have anyone see me while I was eating and I hardly ever went out any more.

Heather was not happy with her ill-fitting full denture.

My dentist then padded the denture to make it fit better. However, he explained to me that my bone was atrophying bit by bit because of the unnatural load caused by the denture and that I would probably continue to have problems with it. He recommended implants that would hold the denture in position and would assist in retaining the bone level by evenly loading it. This would mean a small operation. Although the operation was described as short and atraumatic, I found it difficult to decide to have the implants placed. But then I made a quick decision so I would not lose even more time. X-rays and master casts of my jaw were made and a short time later it was time for the operation. Four implants were inserted into my lower jaw. They were inserted under local anesthetic. Because I was very tense, I was also given a sedative before the procedure. But the treatment was not nearly as bad as I had imagined. Soon everything was done — at first I could not believe that was really all. And I had virtually no pain, even after the anesthetic had worn off.

The dental implants had to heal in the bone for three months. My denture was slightly modified by a dental technician during the implant placement operation so I could continue wearing it immediately afterwards. I had to eat soft food for the first two weeks after placement of the implants, but later I could eat quite normally even while they were still healing. Once the implants had become fully integrated into the bone, my dentist attached small caps, tapered crowns, to them. Matching attachments were also fitted to my denture. Since then I can easily attach the denture to the caps. It is fixed firmly in place, and now I can enjoy everything I used to enjoy before. I eat cake regularly again in cafés with my friends and I can bite into an apple or a crisp bread roll without any difficulty.

It is really exciting what modern medical technology can do today! I could even have had permanent teeth again. But with the removable denture I can clean the caps and the transition areas to the gum much more easily. I have a professional cleaning at the dentist every three months. This is so important to me that I have them remind me by telephone every three months. I am very pleased with my new teeth and would have dental implants again. And that may be soon — with implants for my upper jaw.

Heather is enjoying life again with her implant-borne third set of teeth.





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



The placement of the implants is accurately planned with the aid of X-rays.



If the edentulous jaw has atrophied, the full denture cannot stay in place. Implants solve this problem.



Removable but still secure: full denture fixed to implants.

Treatment

Implants are definitely something for me too!

But will they stay in my jaw? And will it be as simple for me as it was for Heather? 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. In the hands of your experienced dentist Friadent implants almost always offer the possibility of having fixed teeth again. Your last natural teeth can be harmoniously integrated into the denture as abutments. If you have already used a full denture for a long time and your jawbone has become too thin and narrow to accept implants, the bone can be built up with material from your body or material virtually identical to your own body's bone — and this can often be done in the same procedure as the implant placement.

Your dentist has certainly explained all this 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 in favor of an improved quality of life, we want to give you some examples of the specific steps on the path to your new permanent teeth.

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 dental 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 implants, your dentist will discuss any treatment of your remaining natural teeth or the gum that you may require before the procedure with you. Then the 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 to have your implants inserted at the next appointment. You can still eat a small amount 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.

What is implant placement really like?

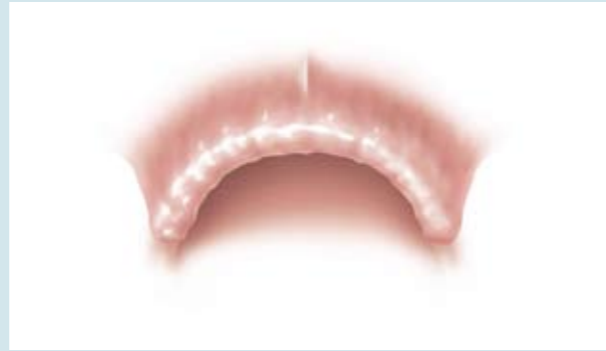
Placing the dental implants

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 surgeon will open the gum at specific positions. Then precisely fitted, small implant sites will be drilled into the bone and the small implants are screwed in. They must normally heal in the bone for some weeks

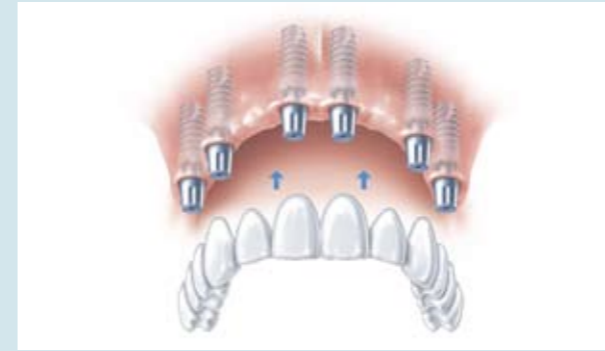
or months without loading by retaining components. The gum is first sutured over the implant without screwing a retaining element into the implant. Then the dentist will place a temporary denture, e.g. your old denture. You will be able to go home from the dental practice or hospital a short time later 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 not eat or drink until the anesthetic has worn off.



The denture is placed on the tapered crowns and is held securely in place again.



The most elegant solution for the edentulous jaw: an implant-borne bridge.



First the implants are placed, then the bridge is fixed to them.



The denture is permanently fixed.

Healing of wounds

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

Healing of bone

During the bone healing phase the bone cells are deposited directly on the specialized surface of the Fria-dent implants and they are gradually integrated into the bone. This converts the implants to 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 beginning. It normally only takes three to four months until the implants are healed. Until then you can continue to wear your existing denture after it has been slightly modified or you will be given a temporary denture. But don't worry. You can eat normally at once with a little care. Temporary dentures can now be designed to such a high quality that they are virtually indistinguishable from your natural and your "third set" of teeth.

Implant uncover

When the healing process has been completed, the gum above the implants is opened again. The dentist now places a gingiva former on the implant that shapes the gum so it will lie as close to the retaining elements for the denture or the bridge coping as the natural teeth. Finally an impression of your jaw is taken to form the basis for fabrication of the final denture and all the required components. The dentist then replaces the temporary denture. This means that you will never leave the practice without teeth.

Placing the denture or bridge

After about two weeks the gingiva former can be removed and your final denture or a long-term temporary denture can be placed. If you receive a fixed bridge, it will be screwed to the implants by a retaining element, referred to as the implant abutment. An implant-supported denture is generally fixed to the implants with tapered crowns, bars, in some cases pushbuttons (ball anchors) retaining elements. The mating components are attached to the denture so it will sit perfectly on the retaining elements. In any case it provides complete security and a completely natural feel in the mouth.

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 and 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 implant placement contraindicated at an advanced age?

It is never too late to improve your quality of life with implants. The treatment is so low-risk that implants can be placed in patients aged 70, 80 or even 90 years. There is no upper age limit. If you are fit for any other routine dental treatment and you are in good health, you can also have implants.

Airport security check

Will metal detectors beep at my implant, such as at an airport check?

No, don't worry about it. Dental implants are not magnetic and they are also too small to trigger the detectors. And if the detector ever does beep at your implants, you will have your implant pass that will explain the situation quickly and easily.

Allergy

Is it possible to be allergic to dental implants?

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.

»» See also "Implant material" at I.

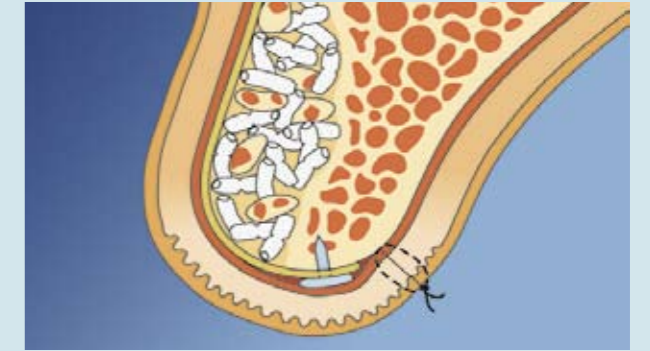
Anesthetic

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 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.



There are no age limits for 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.)

B 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.

C Cardiac pacemaker

Could implants affect my cardiac pacemaker?

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

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 implants cost?

The cost depends on the extent of the treatment, number of implants and the type of denture. A general estimate for a full denture including all medical and dental services would be in the range of 6,000 euros. A fixed bridge replacing all teeth would be around 10,000 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 without problems 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 and tooth paste. However, a very important part of implants is the transition to the gum and — with implant-borne dentures — the retaining elements in the jaw. 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 appointment 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 or osteoporosis, serious kidney damage, a tendency to hemorrhage or an impaired immune system, you should always inform the dentist. In some cases side effects of medications may affect the healing process, so the dentist should be informed of all medications that you take regularly at the first consultation. The 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. This means that implants can last a lifetime.



Enjoy life again with implants.

F Food

Can I bite and eat normally with the denture?

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

I 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 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 and loaded. 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.

Implant Material

What are implants made of?

Friadent dental implants are pure surgical-grade titanium. The material has proven to be so good that now 99 percent of all dental implant systems are made of pure



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

M Material

titanium. It is extremely stable and is very compatible to the body. Titanium also becomes firmly integrated into the bone tissue.

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 bone 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 of implant materials.

N Night

Will I have to remove an implant-borne denture at night?

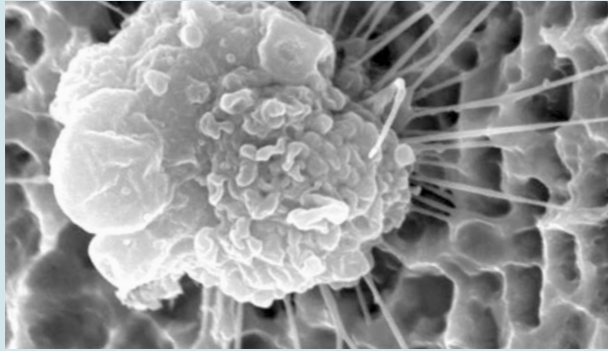
A conventional denture should be removed at night, because it may come adrift during sleep and may block the pharynx or the respiratory passage. An implant-borne denture is normally fixed in place and can be left in place at night without danger. Your dentist will advise you about this. You only have to ask.

»» See "Implant material" at I.

Medications

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. Anticoagulation medications may cause serious hemorrhages during implant placement. If you are required to take medications regularly, you must discuss them with your dentist.



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



Ankylos

1-3 Friident systems: the exact solution for every situation.



Xive



Frialit



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 normal life.

Periodontosis/ periodontitis

»» See "Bone grafting" at B.



Are there 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 shape of dental implants, particularly in the 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 modified or renewed in the future.

Why can I trust Friident implants?

Friident dental implants are quality German products, whose design is based on decades of research, development and documented clinical experience. They are the result of high-precision manufacture. Starting from the purchase of the raw materials the entire production chain is subject to extremely rigid certified 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 to form new bone.

Friident implants offer the best conditions for optimum healing and the formation of a permanent stable base for implants. Friident systems also offer highly esthetic prosthetic solutions for every requirement and for every initial situation. And if the denture fixed to Friident 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.



Existing dentures can often be modified for implants.

R Replacement and modification of the denture

I already have a normal full denture. Do I need a new one for attachment to the implants?

If the existing denture will guarantee optimum loading of the implants and good chewing function, it can certainly be adjusted for fixing to implants. Ask your dentist. The dentist can assess your individual situation and will recommend the best solution.

What happens if one of my own teeth that is integrated into the denture as an abutment is lost?

If a tooth has to be removed, for example because of a root inflammation, it can generally be replaced by an additional implant without difficulty. The support and possibly also the denture will be modified accordingly.

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 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, frequently in the same session if you wish.

And if an implant becomes infected?

When detected early enough infections 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.



There is no difference from natural teeth.

S Smokers

Are dental implants advisable for smokers?

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

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 talk, eat, laugh and live as if nothing had happened.

The next step?

Make your decision for a new quality of life with firm, beautiful teeth. Make an appointment with your dentist. Do it now.