Patient information on dental implants

More than just beautiful teeth. A new quality of life with dental implants.





My implants have become a part of me. I don't even think about them once they've been placed. There's no discomfort – they're taken care of like your own teeth so you brush and floss and you forget that next one's an implant – they just feel like they're part of the rest of the teeth in your mouth. The decision to replace your missing teeth with dental implants from Straumann is an excellent investment in your oral health and appearance. Straumann, together with your dentist, can help you to improve your quality of life and find the right solution for you to restore functionality and help improve your smile and increase your overall confidence. You will find a lot of information about the great possibilities of implant dentistry in this information brochure.

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More than a dental restoration. Improved quality of life.

Dental implant treatment can bring back quality of life, comfort and esthetics. This has a positive impact on your self-confidence and overall mental health – with teeth that look, feel and function like your natural ones.

Improve your ability to eat, speak and laugh

Dental implants from Straumann bring back the benefits and sense of security that come with having strong healthy teeth. Indulge in the comfort of former times when you bite with confidence into that apple and laugh again with ease. Feel confident and carefree once again while interacting with people – whether it's a business discussion, chatting freely with friends and family, or simply enjoying the pleasure of a kiss.

Looks do matter to you

When we talk about healthy teeth, it is not only their function to which we refer. Teeth play a central role in your physical appearance and smiling is also good for your health. For this reason, Straumann restorations are made to match your natural teeth and give you back your smile.

Lift your appearance and smile with confidence

Natural-looking implant-borne teeth not only give you back a confident smile, they also transfer the chewing power back to the jaw bone. This is vital for healthy bone stimulation and maintains the shape of your face.

▶ Bone preservation with dental implants, p. 6

IMPLANTS HELP PRESERVE YOUR FACIAL STRUCTURE

Why the jaw bone needs teeth to stay in shape

In a healthy mouth, the tooth root transmits chewing forces to the jaw, and this helps to maintain the bone. In such conditions, teeth and bone should remain stable. If one or more teeth are lost, these forces cease and the bone may slowly recede. As a result, neighbouring teeth may also move inwards, creating additional gaps, as shown in the illustration below.



Fig. 1: Initial situation

If you suffer from multiple tooth loss, bone atrophy and facial change may persist after conventional restorations, such as bridges or partial prosthesis. On the contrary, dental implant therapy can help to prevent the gradual bone deterioration described above, since the action of the implant mirrors that of the original root, transmitting chewing forces to the jaw bone in a natural way.



Fig. 2: Long-term bone recession





Fig. 3,4: Symbolic illustration of a deteriorated jaw bone.



A SAVINGS PLAN FOR MORE CONFIDENCE SARAH, 57 TAX ADVISOR

"My problem? Periodontitis. The year before last I only had three of my original top teeth. The solution? Three artificial tooth roots on each side of the upper jaw which would support a rigid twelve-tooth bridge. I wasn't worried about how bad the pain would be once the implant had been inserted, but of course it was difficult. During my time with temporary dentures I often feared that they would come out in front of a client and fall into my food, or move towards the back of my mouth. I have two hundred clients and therefore I can't afford to feel insecure. For me, the implant solution was necessary from a medical point of view as well as for my general well-being. I wanted a tight fixing, security and the feeling of not having to wonder whether I could talk, laugh or eat without having an "accident". Also, my husband is five years younger than me, so I want to feel attractive and at ease. I therefore consciously opted for fixed dentures. Ten years ago, I decided not to take out additional insurance and instead invested some money in shares each month – which I then used to buy myself a little bit of personal happiness. Shortly after, I opened a new savings plan, since the next set of implants for the lower jaw are to be expected."

Implant therapy: a proven, safe and modern approach

Implant therapy is a well-proven, state-of-the-art medical dental technique, which has been scientifically tested and used in the last three decades by qualified dentists and surgeons worldwide. Today, it offers the possibility to treat almost every indication.



According to results of a survey carried out in Germany¹, 98% percent of patients questioned were "happy" or "very happy" with their dental implants.



Fig. 1: Symbolic illustration: a) natural tooth b) artificial crown c) implant

An artificial root that works like a natural one

When a tooth and its root are missing, a crown on a dental implant is an esthetic and long-term solution that works like a natural tooth. A dental implant is a very small but strong post made of biocompatible metals, or ceramics, which is inserted into the jaw bone in place of the missing tooth root. Such an implant acts as a support for the tooth, and is surgically inserted under local anesthetic on an outpatient basis. Until the implant is securely attached to the jaw bone (the process is called "osseointegration"), a healing phase of between 6 weeks and a few months is necessary, depending on the individual medical situation.

Reduced healing time with SLActive[®], p. 27

Once healed, the artificial root acts as a base for fixing individual crowns and multi-tooth bridges. Also, the implant can be used as an anchor for entire dental prostheses.



Fig. 2: Dental implant on a scale of 1:1, compared to a match.

MATERIALS AND SURFACES OF STRAUMANN IMPLANTS

- **Titanium:** Commercially pure titanium is a biocompatible metal, which means that it is non-toxic and well-tolerated by the body. This permits its many medical uses for surgical implements and implants (joint replacement), where high strength and low weight are preferred. One of its most important medical applications is in implants, and those made from titanium have been shown to bond very well to living bone (osseointegration). Because of this, dental implants can last for decades.
- Roxolid[®]: This is a groundbreaking material from Straumann specifically designed for the use in dental implantology. It is a titanium-zirconium alloy which is stronger than pure titanium and has excellent osseointegration properties, a combination which is unique in the market of dental implants.
- **Ceramic:** If you are interested in a metal-free alternative to titanium or Roxolid[®] implants, Straumann offers the Straumann[®] PURE Ceramic Implant, an ivory-colored implant made of zirconium-oxide ceramic.
 - Straumann[®] PURE Ceramic Implant, p. 28
- **Straumann® SLActive®:** Would you like to shorten your healing time or increase treatment predictability? This clinically proven implant surface developed by Straumann was designed for exactly this purpose.
 - Straumann[®] SLActive[®] surface, p. 28

The big difference – Conventional prosthesis vs. implant

If one or more teeth have to be restored, you have the option to choose between a conventional prosthesis and implant therapy. What are the main differences?

The bridge solution: With conventional methods, the two healthy neighboring teeth have to be ground down in order to fix a bridge in place. This results in a loss of natural tooth substance. Furthermore, the bridge does not transmit chewing forces to the jaw bone, so bone deterioration may also occur. Dental implants and bone preservation, p. 6



Figs. 1–3: Conventional three-unit bridge

My quality of life and other related things improved – it was a real blessing for me. For the past 17 years, I haven't worried about talking or eating, or anything like that and that took a big load off of me. So I would really recommend implants.

The implant solution: The dental implant replaces the root of the original tooth, while the healthy neighboring teeth remain intact without having to be ground down.



Figs. 4–6: Implant-borne single-tooth replacement



TO SUM UP: AN IMPLANT ...

... merges with your body

Even the best prosthesis will always be a foreign part that requires extensive care. By contrast, a dental implant is simply an artificial root, which on healing, merges with the body and acts likes a natural one.

... maintains your smile

Functionality and visual appearance go together: an implant-borne restoration looks like a natural tooth – there is simply no visible difference, and special care is not required.

... preserves your facial structure

Implants transmit chewing forces to the jaw bone. This is not the case if teeth are missing or when a conventional prosthesis has been put in place. If these forces cease, the bone may slowly recede and the shape of the face may change over time.

And: your teeth don't have to be ground down

With a conventional bridge, the healthy neighboring teeth to the right and left of the missing tooth have to be ground down to support the bridge. When using an implant to close the gap, the neighboring teeth are not affected and the natural tooth substance remains intact.





A SOLUTION FOR EVERY NEED

Single tooth gap

Fig. 1: The dental implant replaces the missing tooth root.

Two or more tooth gaps

Fig. 2: The implants act as a support for the bridge.





FIXED PROSTHESES AND REMOVABLE DENTURES

Fixed full-arch dental bridges: an attractive and effective solution with many advantages

With the help of Straumann components, missing teeth in either the upper or lower jaw may be replaced with a full-arch dental bridge supported by four or more dental implants. The prosthesis can only be removed by the dentist. These implants provide secure and lasting support for the bridge and artificial teeth. Depending on the individual case, temporary artificial bridges can be delivered on the day of surgery or soon after.



Figs. 1-3: Fixed acrylic prosthesis on tilted implants



Figs. 4–6: Fixed prosthesis with straight implants

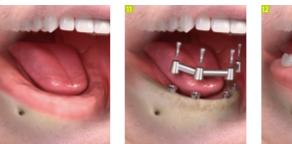
Removable dentures: easy to remove for every day oral hygiene

Removable implant-supported dentures can also provide a better fit and higher stability than conventional ones. The implants act as an anchor for the retentive components attached to the denture, and while there are several different retention concepts and systems available, all are beneficial to the patient. The denture can also be removed for every day oral hygiene.





Figs. 7–9: Removable denture with LOCATOR® attachment



Figs. 10-12: Removable denture with bar

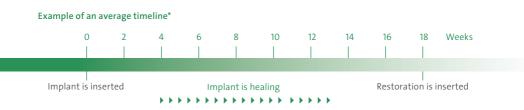


A LIFE-LONG INVESTMENT ROBERT, 55 BUSINESSMAN

"False teeth at age 55? Impossible for me to imagine. For a long time, I'd had a bridge in my upper jaw which was slowly falling apart because more and more teeth were coming loose. The dentist suggested a plate-free removable prosthesis which would be fixed to four implants. The alternative was a full set of dentures with an upper dental plate. Once all my top teeth had been pulled out and I was wearing temporary dentures with an upper dental plate during the healing stage, all my worst fears came true: the plate made me feel constantly sick and I experienced painful pressure points. The adhesive cream stuck to the palate, but it didn't really hold the dentures in place. I only noticed how hot food actually was when it reached my throat and there was no longer any need to buy expensive wine – it didn't taste of much. Now it all feels like a brand new life: there are no pressure points, I finally enjoy eating out again – and my new teeth feel neat and attractive. As a consequence, I am more comfortable and self-confident. I also remove my current implant-based dentures from my mouth – but only in order to clean my teeth properly. At first glance it's a lot of money to splash out, but if I look after my new teeth they will last for a long time. Hopefully, they will turn out to be a life-long investment."

The journey towards a new smile: maybe easier than you think.

A thorough diagnosis, individual consultation and competent dental treatment are the vital cornerstones for a successful implant-borne restoration.



Step 1: Diagnosis and decisionmaking

After gathering all the information via oral X-rays, the dentist investigates and assesses the treatment options that would be best for you. The advantages and disadvantages of the various solutions are openly discussed so that you are well-informed on every aspect of the procedure before making a decision.

Step 2: Implantation – the implant is anchored in your jaw

The implant – an artificial root – is usually inserted under local anesthetic. The dentist creates a suitable "bed" in the jaw bone in which it is to be inserted. Depending on the individual case, a temporary restoration may be placed on the implant during the healing stage. This allows you to enjoy a natural looking smile quite early in the process.

SUFFICIENT BONE: AN ESSENTIAL PREREQUISITE

Implants need to be anchored in the jaw bone like natural teeth. If there isn't sufficient bone available, implants may still be placed with the help of bone augmentation – an established treatment used to help build up bone.

What does it mean to have a low bone volume?

Sometimes when teeth are lost, the surrounding bone may also deteriorate. If this happens and implants are to be placed, then one solution is to build back the bone. There is a variety of methods based on individual needs when it comes to bone augmentation, and your dentist will explain in detail should this affect you. Surgeons and dentists are well trained in the standard procedure of bone augmentation in implant treatments.

The procedure and the materials

New bone is added where there is currently a lack of volume in the area around the implant. This enhances the appearance of the implant crown where it meets the gum line and helps provide the support needed for the implant. Straumann offers a complete range of synthetic and biological materials to use for this technique – please ask your dentist.

Can bone augmentation be avoided?

Under certain conditions – which must be evaluated by your dentist – the bone augmentation step can be skipped by using smaller implants made of Roxolid[®] (see p. 27).



Step 3: Healing phase – the implant bonds with your bone

Until the implant is securely attached to the jaw bone, a healing phase of between six weeks and a few months is necessary. This depends on the individual medical situation and can be reduced by using implants with SLActive[®] surface (see p. 27). After approximately one week, the stitches are removed. Diligent oral hygiene is now vital for successful healing.

Step 4: Your new teeth are produced at the dental lab

As your implant bonds itself to the bone during the healing phase, your dentist and his laboratory partners proceed to create your personalized tooth.

Step 5: Placement of the final restoration

Once the healing phase is over, your final restoration is connected to the implant, leaving you free to smile, bite and chew like before.

Step 6: Aftercare – oral hygiene as usual

Once healed, the implant is part of your body, and just like a natural tooth, it requires regular check-ups and conscientious oral hygiene. With normal, but appropriate care, the long-term function of your implant can be maintained for decades.

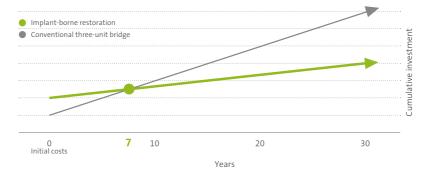




Your quality of life: priceless.

Your health is your wealth, and Straumann dental implant solutions provide a better quality of life, comfort and convenience, as well as an improved oral health and physical appearance. For instance, consider that you can say goodbye to the discomfort and time-consuming care of ill-fitting dentures. You cannot put a value on such things; however there is a monetary aspect when it comes to deciding between dental implants and conventional restorations. Contrary to what you might think, conventional dentures are not always the most cost-effective solution in the long term, as it has been shown in comparative studies.

- Dental implants are a cost-effective alternative to conventional restorations and improve the quality of life.²
- Especially for single-tooth replacements, an implant is to be regarded as a cost-effective treatment option in comparison to a traditional three unit fixed dental prosthesis.³
- For the replacement of multiple teeth, dental implants (fixed or removable prostheses) were associated with higher initial costs but better improvements in oral health-related quality of life compared with other treatment options.⁴



Graph: After 7 years, the costs for a single-tooth restoration pay off and the long-term maintenance costs are lower than for a conventional bridge.³

I would absolutely recommend to have an implant versus anything else. I know that people sometimes worry about the investment, but in the long run it's been really the best for me. Mary, 64



More than Swiss precision. Exceptional peace of mind.

There are many reasons for you to enjoy peace of mind with our original components. Straumann is a leading dental implant company that in more than 60 years has earned worldwide trust because it has remained true to itself. We are convinced that few companies have as much to offer, so there are many reasons why opting for a Straumann implant is an excellent choice for your oral health.

There are many implant systems, but not all are equal

In the last decade, dental implants have become a standard treatment in dentistry, and there are many types being offered by various dental implant companies. But are they offering the same quality, and have these systems been clinically proven in long-term studies? Most patients are not aware of the critical differences between implant systems. Straumann components are manufactured under consideration of internationally accepted quality standards – with high precision and documented clinical research.

Our products are backed by science

Only few systems on the market have been scientifically tested. The Straumann[®] Dental Implant System is one of the best documented, with more than 35 years of extensive scientific, clinical evidence and support by more than 700 scientific publications.⁵

A pioneer and global leader in implant dentistry

We have been researching, developing and manufacturing implants since 1974. In collaboration with renowned international clinics, research institutes and universities, we have pioneered many ground-breaking technologies in implant dentistry.

More than 14 million implants placed worldwide

Through Swiss precision engineering and clinical excellence, the Straumann® Dental Implant System has earned worldwide trust. Clinicians in over 70 countries have placed more than 14 million Straumann implants.⁶ So wherever life takes you, care is nearby for your Straumann dental implants.





What brand of implants would dentists select for themselves?

Ask your dentist about the products he or she uses to help deliver quality dental care. What type and brand of implants would your dentist select for themselves or their family? K I would definitely recommend implant treatment to a good friend or family member that is considering the option because it really has made my life a lot easier. It's a simple procedure, permanent and not something that you'll ever have to worry about after you get it done. Carly, 25



Lifetime warranty for Straumann implants

With a Straumann implant, you can fully trust in its longevity and in the long-term availability of components. Straumann provides a lifetime guarantee for implants should they have to be replaced, and tiered guarantee plans for prosthetic components. Despite changes in models, designs or technology, we ensure the availability of the necessary parts to service and restore any implant placed, for many years to come.*



* The Straumann Guarantee is in favor of the attending physician/dentist only and pertains to original Straumann products that have been used exclusively and not in combination with any other manufacturer's products. For applicable terms and conditions of the Straumann Guarantee visit your local Straumann website.



Always a step ahead

Our daily aim is to enhance implant success and improve your experience with dental implants. Cutting-edge technologies and products like SLActive[®], Roxolid[®] and Straumann[®] PURE Ceramic Implant were developed and designed by Straumann to make implant therapy shorter, more predictable and less invasive, as well as to continually redefine the boundaries of possibility and widen treatment options.

Straumann[®] SLActive[®]: faster healing times and more predictability

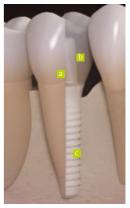
The scientists at Straumann have researched the possibilities of significantly reducing healing time after insertion and enhancing predictability of the outcome, without additional risk to the implant integration. The outcome: Straumann® SLActive®, the ground-breaking and clinically proven implant surface. This technology may cut healing time in half by initiating the bone formation process at an earlier stage, resulting in substantially improved implant stability. Furthermore, it improves treatment predictability in clinically challenging situations.⁷

Straumann[®] Roxolid[®]: less invasive treatments thanks to higher strength

Implants are anchored in the jaw bone like natural teeth. If there is not enough bone available, a bone augmentation procedure is an established method. However, under certain conditions – which, as always, must be evaluated first by your dentist – the bone augmentation step can be skipped. With Roxolid[®], Straumann has developed a unique material for dental implants that offers even more strength than titanium implants. In this context, more strength means that the implant can bear a greater load. As a result, Straumann implants made from Roxolid[®] may be used when smaller implants are necessary due to insufficient bone. With the option to use smaller implants and if a bone augmentation procedure can be avoided, treatment time may also be reduced as the surgery requires fewer steps.⁸

Straumann® PURE Ceramic Implant: for a natural smile

Are you looking for a metal-free alternative to implants made from titanium? The Straumann® PURE Ceramic Implant is made from high-strength ceramic material and designed to achieve maximum functional and esthetic performance. Since it has the color of a natural tooth, the implant will not shimmer through, even in cases of thin or recessed gums. This allows patients to have a natural-looking and esthetically pleasing outcome. The Straumann® PURE Ceramic Implant offers all the benefits that characterize a member of the renowned Straumann® Dental Implant System: reliability, high strengthand excellent bone integration.



Symbolic illustration: a) natural tooth b) artificial crown c) implant

My life has changed because now I don't have to think before I smile, meet people comfortably and say "Hi!". I work with the public every day and it's a requirement of my job that I smile a great deal. So it's allowed me to be much more relaxed at work and much more outgoing than I was in the past.



A PARTY FOR THE NEW TOOTH KATHRIN, 28, FLIGHT ATTENDANT

"There are moments you would rather erase from your life. It was shortly after midnight, a year ago on New Year's Eve in a bar. I was dancing when the guy next to me suddenly turned around, thereby ramming the thick hard edge of his cocktail glass into my front teeth. There was blood everywhere, but all my teeth were still in place. On January 2, a day before my birthday, my dentist delivered the diagnosis: one of my front teeth was cracked along its length and the nerve had been damaged – the tooth had to come out. An artificial tooth root, an implant, would replace my front tooth. I was scared before the surgery, but the implanting procedure wasn't that bad; the wound was just a bit sore once the implant had been inserted. However, before my new front tooth could be fixed to the artificial root, the implant had to heal in. In the meantime, a temporary tooth with a clasp was made for me. It was a wobbly solution. I wanted to talk and laugh without wondering whether anyone would notice that my real front tooth was missing. In the four months without a secure incisor I wasn't myself, I didn't feel complete. Shortly after the new tooth was fixed to the implant, I celebrated with fifteen friends on the banks of the river Elba. The theme of the party? My new tooth's birthday!"



K I had to decide to either go with a crown or with a permanent tooth. Eventually, I realized that, in the long run, it's worth getting an implant instead of a crown. I just find that I feel comfortable with it. By all means, it's probably the best way to enjoy your meals and not having to worry about something happening with your tooth in the years to come. S sally, 61

The patient quotes in this brochure are based on interviews conducted by Straumann USA, LLC in the United States. The patient stories are fictional case examples.

 Riegl Study results of 2009, Germany, with over 10'000 patients. 2 Vogel R, Smith-Palmer J, Valentine W. Evaluating the Health Economic Implications and Cost-Effectiveness of Dental Implants: A Literature Review. Int J Oral Maxillofac Implants 2013;28:343–356. doi: 10.11607/ jomi.2921. 3 Priest, GF, Priest JE. The Economics Of Implants For Single Missing Teeth. Dental Economics 2004;94(5):30-138. 4 Blackwell, R, Lowe, R, Morris, G, Priest, G, Implant Economics, A Supplement To Dental Practice Report, September 2004. 5 According to the PUBMED database query "Straumann Dental Implant OR ITI dental implant", 733 results as per 6th of October 2014 – with the first entry being "Schroeder A. et al.: The accumulation of osteocementum around a dental implant under physical loading, 1978." 6 Reference year: 2014 7 Literature overview: www.straumann.com/slactiveref

WORLDWIDE LEADER, WORLDWIDE TRUST

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Visit www.straumann.com/patients to find out more about products and solutions by Straumann and ask your dentist.

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