Patient information

The answers to your questions on dental implants

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An abundance of information is available to us today if we want to deal with the subject of "dental implants". From the reliable specialist information with a medical background to reports from individual patients whose treatment, for whatever reason, didn't lead to the desired success.

Given all this information, what should not be overlooked is the fact that you as a patient decide whether you want to opt for the dental implant therapy suggested by your treating dentist. Your dentist can advise you on all implant related questions using our provided expertise. In addition to information and knowledge, the decision-making process is primarily based upon one thing: "trust".

Trust in the implantology treatment method, in the practitioner, and last but not least, in the implant system intended for use.

The basis for trust is experience. A well known group of doctors, dentists and oral surgeons, with over three decades of experience in implantology, have backed the idea as well as the technical and scientific development of the Swiss-German quality SIC invent implants.

The Schilli Implantology Circle founded by Prof. Dr. Wilfried Schilli has been able to continuously expand its know-how through scientific research and experience from everyday clinical practice in modern implant therapy. Experience your dentist relies on in order to offer you the best possible dental restoration.

The focus of SIC invent is on safety and comfort as well as aesthetically pleasant prosthetic treatment options. The technical level of the modern SIC invent Systems facilitates a good predictability of the therapy success. Success rates of well over 90% are scientifically proven in dental implantology.

Contents

Prosthetic* rehabilitation with dental implants

What is a dental implant?

An artificial tooth root made of titanium

A dental implant is mostly a titanium (or sometimes a zirconium oxide) screw which basically replaces the natural root of the tooth after injury, periodontal disease, inflammation and a number of other reasons.

The implants carry the dental prosthesis*. This is connected to them directly or via an abutment and can be designed as a fixed crown or bridge as well as a removable bridge or prosthesis. Whatever the case, the implants always ensure a reliable, firm hold.

The implants and prosthetic components are available in various shapes, lengths and diameters to suit the respective individual conditions of the patient, such as the condition of the bone and the desired aesthetics harmonised by the gingival contours and crowns.

The implant is inserted into the bone in a small, painless, surgical procedure. Depending on individual factors such as bone quality, dental prosthesis planned and health factors, the chosen prosthesis can be placed on the implant immediately, after a short delay or after a longer healing phase of approximately 3 – 4 months. Your dentist will advise you on the procedure required in your individual case.

** A dental prosthesis is a dental appliance that replaces a missing tooth or covers up tooth defects. These dental appliances include implants, crowns, bridges, dentures and veneers, and some of them can be removable or permanently fixed in your mouth.*

What is taken into consideration for the healing and integration of the dental prosthesis?

Bone healing and healing times

After an implant is inserted surgically into the jawbone, healing must occur. The jawbone attaches itself directly to the implant surface in a process called osseointegration. The time required and the success of this process is mostly dependant on individual starting conditions. A stable and healthy bone in which the implant is placed, a good general state of health specifically the oral cavity, combined with adequate loading of the planned dentures, usually enables a faster process than complex situations with risk factors such as poor bone quality, certain underlying diseases, medications, etc. Your dentist will take all of this into consideration when choosing the right time to integrate and functionally load the dental prosthesis.

When and how does the treatment with a dental prosthesis occur?

Healing and prosthetic restoration

A distinction is made between open and closed healing during the healing phase of the implant.
In the case of "closed" healing, used mostly when a longer healing time is necessary e.g. after bone augmentation or soft bone cases, the oral mucosa is surgically closed again over the inserted implant so that it can heal without bacterial contamination or irritation from food residues, etc. For further supply with dentures after the healing process, the mucous membrane is reopened under local anaesthesia and the implant is provided with the abutment and/or dental restoration.
In the case of "open" healing, which is usually chosen for short-term restoration options, the head of the implant is provided directly with an abutment or a so-called gingiva former (to give the surrounding gum a naturally looking shape) and allowed to heal without renewed closure of the mucous membrane. A temporary or, in some cases, even a permanent prosthesis can be incorporated.

An impression is always required for the fabrication of a temporary or definitive prosthesis/restoration. This can be done digitally or conventionally.

For smaller restorations, an optical-digital impression is often taken. Using a special camera, a so-called intraoral scanner, the dental technician records the images of the oral situation from different angles in order to create a three dimensional digital model which is then used to plan and manufacture the prosthetic restoration.

In the case of larger restorations and therefore the need to image areas which cannot be easily detected by the above mentioned scanner, a conventional impression is usually taken. This is then used to create a model of the situation in the oral cavity. The dental prosthesis can then be manufactured digitally or conventionally, by hand or in a mixed form.

The finished restoration is connected to the implant. In the case of fixed prosthesis (crowns/bridges), this is usually done by cementing on the abutment or screwing the abutment and crowns to the implant. For removable dentures, so-called attachements

elements are usually screwed onto the implants, on which the removable denture is placed and is securely fixed by various attachment mechanisms (e.g. temporary screwing, locking, snapping, etc.). The insertion of the prosthesis, be it a fixed or removable one, is painless. Local anaesthesia is rarely necessary, except in cases where the situation calls for cleaning of structures deep under the gum-line.

Who needs a dental implant?

People with missing teeth

Be it due to tooth decay, diseases of the periodontium, inflammatory processes of the tooth roots or even the consequences of an accident, tooth loss can affect anyone. What ever the case, tooth loss can have an aesthetic and functional adverse effect leading to impairments and effectively a significant reduction in the quality of life. People with tooth gaps tend to lose their positive and natural charisma.

Tooth gaps are no longer socially accepted and people with a "natural smile" have proven to have greater opportunities in all areas of life. The previous standard therapy for tooth gaps was the fabrication of a bridge. However, the bordering teeth (in many cases healthy) must be ground down so that they can serve as bridge pillars to be crowned. This risky and invasive procedure is not necessary when replacing missing teeth with implants.

Patients with an insufficient denture hold

Partial as well as full dentures or prosthesis can lead to massive functional loss due to progressive bone atrophy or overloading of the "anchoring teeth". Therefore the prosthesis fits poorly and results in a poor hold. The consequences include problems with eating, frequent pain from pressure points while chewing, as well as difficulties in speaking clearly. This in turn negatively affects communication and social contact leading to a negative repercussion in all areas of life.

In a nutshell: The course of treatment with an implant

01 Diagnosis and planning

After a detailed patient examination and recording of the findings, the dentist will assemble and evaluate all the diagnostic documents such as x-rays and models and provide you with a dental care proposal. Your doctor will discuss and provide you with comprehensive information about the best treatment and dental prosthetic solution for you.

02 The surgical procedure

The insertion of an implant is usually carried out as an outpatient procedure using local anaesthesia. The procedure is as minimally invasive as possible. After proper processing of the bone, the implant is then inserted into jaw bone. This is followed by the healing phase and the possible processes described previously, and if necessary, (provisional) restorations.

03 Prosthetic Restoration

Based on the digital or conventional impression taking process, your prosthetic restoration will be manufactured then connected by gluing (cementing) or screwing it either directly to the implant or to the abutment. As described above, the method depends on the type of tooth restoration necessary.

04 Risks

The risks of an implantation are comparable to any minor surgical procedure.

05 Costs

The cost of an implant treatment depends very much on the the type of therapy chosen or desired by the patient. Due to the good prognosis and long durability, implantological restoration proves, in the long term, and in most cases to be the cheaper alternative. The usually higher cost of implant care compensates for the preservation of the healthy gap-bordering teeth.

Your dentist will draw up an individual cost and treatment plan and discuss the various options available with you.

06 Lifespan

Based on present day knowledge, 90–95% of implants placed are still fully functional after 10 years. The prerequisite for this is the active cooperation of the patient through optimised oral hygiene, regular check-ups and professional teeth cleaning with a dental hygienist.

What are the advantages of dental implants:

01 Unrestricted function, natural aesthetics

In most cases, tooth restorations on artificial tooth roots cannot be distinguished from natural teeth in terms of function and appearance. A healed implant with a crown, for example, can withstand the same load as its own tooth. Implant restorations can be integrated harmoniously into the existing tooth structure.

02 Protection against bone atrophy

Functionally loaded implants protect the surrounding bone from decline. Correctly placed implants also optimally shape the gums and prevent their functionally and aesthetically unfavourable regression.

03 Perfect long-term stability

In view of the high success rates mentioned, implants are now considered to be one of the safest dental treatment methods available. Many years of intensive research have led to significant improvements in the healing process, particularly with regard to the surface properties of the implant body. With good starting conditions and good dental hygiene, dental implants can last for many years to a lifetime.

04 Increased oral comfort during chewing

Many cases that were previously treated with limited stability-full or partial prosthesis, can now be replaced with fixed, implant-supported bridges or (partially-) removable replacements with fixed anchoring. Through this there is no or very limited feeling of foreign bodies combined with a chewing comfort that comes close to that of natural teeth.

Are dental implants always possible?

Not age related

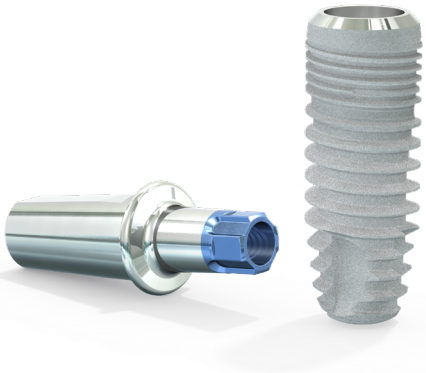
Implants are not a question of age. Implants are however, not suitable for young patients whose jaws have not yet finished growing. Otherwise, implantation can be carried out in patients well into old age without any problems.

No implant without individual analysis

A precondition for a successful treatment with dental implants is a detailed assessment. This can only be done by an experienced dentist. After intensive, case-related diagnostics and planning, the dentist creates and submits an individual treatment proposal.

What can be said against it?

As with any operation, limitations in the general condition or a few diseases that negatively affect healing can generally speak against an implant. Sometimes the individual bone situation could be insufficient for a secure hold of the implants. In these cases, however, the prerequisites for the insertion of dental implants can usually be created through additional surgical measures of the bone support. Before and after the implantation, good oral hygiene is important for the long-term stability and the preservation of the artificial tooth roots without inflammation.



In what cases can my personal dental situation be significantly improved by the use of implants?

Single missing tooth

There are various causes for a single missing tooth.

Congenital

This is a genetically determined situation in which one or more teeth are missing from birth creating a tooth gap. It can also happen when milk teeth are not replaced by permanent teeth, leaving a gap later on.

Accident

Often a small accident during sport or in everyday life is enough to cause tooth loss and thus a tooth gap.

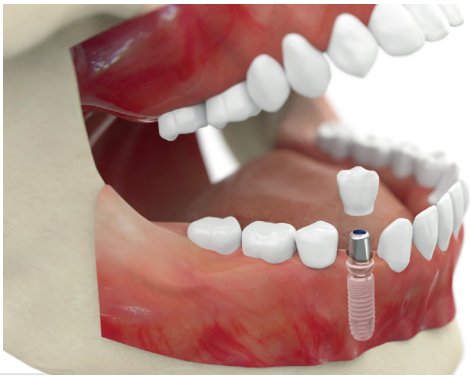
Caries and periodontal situation

Last but not least, diseases such as tooth decay or periodontal disease can lead to tooth loss. In the case of periodontal disease, it is necessary to treat it thoroughly before an implant is inserted, as the inflammation-causing mechanisms of the periodontitis can also impair the osseointegration of the implant.

Single missing tooth

01 BEFORE
Single tooth gap

02 DURING
Situation after implantation and exposure. Implant with abutment prepared for receiving a crown



03 AFTER
State after the crown is fixed in place

Several missing teeth

Smaller tooth-bordering gaps / small residual teeth

01 BEFORE

Tooth gap
over three teeth

02 DURING

Situation after the insertion of two implants, with abutments that act as fixtures for the bridge

03 AFTER

The high quality, and good aesthetic outcome after incorporation of an all-ceramic bridge

All teeth missing

01 BEFORE
Fully edentulous lower jaw

02 DURING
Four implants are used to accommodate the retaining elements in the safely implantable lower front jaw.

03 AFTER
Depending on the expansion, a bridge or a prosthesis is fixed by screwing it into the four implants.

The individual approach

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