More than just beautiful teeth.

A comprehensive guide to dental implants.
My implants have become a part of me. I don’t even think about them. 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.

Matiel, 67, Straumann Dental Implant Patient
The decision to replace your missing teeth with Straumann dental implants is an excellent investment in your oral health, appearance, and overall quality of life. Your dentist can help you find the right Straumann dental implant solution to restore your oral function, help improve your smile, and increase your overall confidence.

Learn more about the benefits of Straumann dental implants, treatment options, cost, and more on the following pages.

CONTENTS

- About dental implants 4
- Effects of missing teeth 6
- Conventional bridge vs. implant-supported restorations 8
- Dental implant solutions to replace missing teeth 11
- Dental implant treatment procedure 14
- Dental implants cost-effectiveness 18
- Why Straumann dental implants? 20
- Straumann implant technology 21

Every surgical procedure carries potential risks. You should always consult with a dental professional prior to treatment. Potential risk factors may vary depending on medical or other conditions of each patient.
More than tooth replacement.
Today's standard of care.

Dental implant treatment can improve quality of life, comfort and esthetics — with teeth that look, feel and function like natural teeth.

**What is a dental implant?**
A dental implant is a small, but strong, clinically supported device made of titanium or titanium-zirconium, which is inserted into the jaw bone in place of a missing tooth root. An implant acts as support for an artificial tooth crown or bridge, and is surgically placed in the jaw bone under local anesthesia on an outpatient basis.

**Effects of missing teeth**
A missing tooth or teeth can take away from the smile that’s really you, but tooth loss can have many negative effects on your oral health, including:
- Bone loss
- Shifting and drifting teeth
- Bite changes and chewing difficulty
- Wearing down of remaining teeth
- Changes in the jaw joint

1. Natural tooth
2. Dental implant
3. Tooth crown
Dental implants:
a proven, reliable and modern approach.

Implant therapy is a clinically proven, state-of-the-art dental technique, which has been scientifically tested and used for over three decades by qualified dentists and surgeons worldwide. Today, implant treatment offers the possibility to treat almost every patient who is missing teeth.

AN ARTIFICIAL ROOT THAT WORKS LIKE A NATURAL ONE

When a tooth and its root are missing, a crown supported by a dental implant is an esthetic and long-term solution that works like a natural tooth. A dental implant is a small, but strong, device made of biocompatible materials, and is inserted into the jaw bone in place of the missing tooth root. Until the implant is securely bonded to the jaw bone (in a process called “osseointegration”), a healing phase of a few weeks to a few months takes place depending on the individual medical situation.
► Fast healing time with SLActive®, p. 21

Once healed, the implant acts as an artificial root and supports individual crowns, multi-tooth bridges, or full-arch bridges.
► Treatment options, p. 11 – 13

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

Fig. 1: Symbolic illustration of a dental implant vs. a natural tooth: a) natural tooth b) artificial crown c) implant
IMPLANTS PRESERVE YOUR JAW BONE AND FACIAL STRUCTURE

Why the jaw bone needs teeth to maintain shape
In a healthy mouth, the tooth root transmits chewing forces to the jaw, and this helps to maintain the bone – and keep natural teeth stable. If one or more teeth are lost, these forces cease and the bone may slowly recede. As a result, neighboring teeth may also move inwards, creating additional gaps, as shown in the illustrations below (Fig. 1 and Fig. 2).

![Fig. 1: Initial situation](image1)
![Fig. 2: Long-term bone recession and shifting teeth](image2)

If you suffer from multiple tooth loss, bone atrophy and facial change can continue (Figs. 3, 4) under conventional restorations, such as bridges or partial prostheses.

Dental implants can help to prevent the bone deterioration described above, since the implant mimics a natural root, transmitting chewing forces to the jaw bone and preventing bone loss.

![Figs. 3,4: Illustration of loss of facial structure due to deteriorated jaw bone](image3)
WHY DENTAL IMPLANTS ARE THE BEST SOLUTION TO REPLACE MISSING TEETH:

Bone grows and bonds to the implant surface
A dental implant is simply an artificial root that merges with your bone and acts like a natural tooth root.

Natural looking and feeling
An implant-supported restoration looks and feels like a natural tooth – there is no visible difference or special care required.

Preserve jaw bone and facial structure
Implants transmit chewing forces to the jaw bone, which helps maintain bone and facial structure. If tooth roots are missing, these forces cease and the bone may slowly recede and cause shifting teeth and facial shape changes.

Maintain adjacent natural teeth
Unlike bridges, a dental implant replaces a natural tooth root, and does not require that adjacent natural teeth be ground down to provide support, so your remaining teeth stay intact.
► Dental implants vs. conventional tooth replacement, p. 8 – 9
Dental implants vs. conventional tooth replacement.

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

**CONVENTIONAL CROWN & BRIDGE SOLUTION:**

With conventional methods, two neighboring teeth must be ground down in order to place a bridge. This results in a loss of natural tooth substance, and the bridge does not transmit chewing forces to the jaw bone, resulting in bone deterioration over time.

► Dental implants and bone preservation, p. 6

Fig. 1: A tooth is missing
Fig. 2: Two neighboring teeth must be ground down to support a bridge – resulting in loss of natural tooth substance
Fig. 3: A bridge placed on to the ground-down teeth does not transmit chewing forces and bone loss may occur

“I would definitely recommend implant treatment to a good friend or family member [who] is considering the option because it really has made my life a lot easier.”

Carly, 25, Straumann Dental Implant Patient
THE IMPLANT SOLUTION:

The dental implant replaces the root of the original tooth, while the neighboring teeth remain intact without having to be ground down. A dental implant also proves to be more cost-effective over time\textsuperscript{2,3} and provides greater patient satisfaction compared to conventional restorations\textsuperscript{1}.

\begin{figure}[h]
\centering
\includegraphics[width=0.3\textwidth]{fig4}
\end{figure}
\begin{figure}[h]
\centering
\includegraphics[width=0.3\textwidth]{fig5}
\end{figure}
\begin{figure}[h]
\centering
\includegraphics[width=0.3\textwidth]{fig6}
\end{figure}

Figs. 4–6: Tooth replacement with a dental implant and artificial crown

\begin{figure}[h]
\centering
\includegraphics[width=0.3\textwidth]{fig7}
\end{figure}

Fig. 7: Neighboring teeth remain intact and the implant provides long-term support to the jaw bone
Straumann Dental Implants
Treatment options.

Whether you are missing one tooth or all of your teeth, Straumann implants offer you options most like your natural teeth.

A SOLUTION FOR EVERY NEED

Single-tooth replacement
Fig. 1: The dental implant replaces the missing tooth root, and supports an artificial tooth crown

Multiple tooth replacement
Fig. 2: The implants replace two or more teeth and support a dental bridge
Straumann full-arch solutions replace missing teeth in the upper or lower jaw, with a full-arch bridge supported by 4 – 6 dental implants. There are two types of solutions available.

**FIXED DENTURES**

**Fixed, or non-removable, full-arch dental bridges:** Attach to dental implants and are removed for cleaning and maintenance by your dentist.

Missing teeth in either the upper or lower jaw can be replaced with a fixed full-arch dental bridge supported by 4 – 6 dental implants. These implants provide secure and lasting support for the bridge and your new teeth. Depending on the individual case, your dentist may even be able to place a temporary bridge on the day of surgery or soon after.

**FIXED DENTURE OPTIONS**

Figs. 1 – 3: Non-removable denture supported by 4 implants

Figs. 4 – 6: Non-removable bridge supported by 4 – 6 implants (6 shown)
Removable dentures: *Attach to implants and are removed at home for every day oral hygiene*

Removable implant-supported dentures can also provide a better fit and higher stability than conventional dentures. The implants act as an anchor for retentive components that attach 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 at home for every day oral hygiene.

**REMOVABLE DENTURE OPTIONS**

Figs. 7–9: Removable implant-supported denture with LOCATOR® attachments snaps into place and can unsnap for home removal.

Figs. 10–12: Removable denture with implant-supported bar

— Ray, 75, Straumann implant-Supported Denture Patient

"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 journey towards a new smile: The implant procedure.

A thorough diagnosis, individual consultation with your doctor, and a skilled dental team are the cornerstones for successful implant treatment.

**Step 1: Diagnosis and decision-making**
After gathering all the information via oral X-rays, the dentist will discuss treatment options, advantages and disadvantages of the various solutions, and the procedures involved before making a decision.

**Step 2: Implant placement – the implant is placed in your jaw**
The implant – an artificial root – is surgically inserted in the jaw bone under local anesthesia. Depending on the individual case, a temporary restoration may be placed on the implant during the healing stage for a natural looking smile.

---

**EXAMPLE OF TREATMENT TIMELINE WITH STRAUMANN IMPLANTS**

SLActive implants offer patients fast treatment times

<table>
<thead>
<tr>
<th>SLActive® implant surface</th>
<th>3 - 4 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLA® implant surface</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Implant placement</td>
</tr>
</tbody>
</table>
Step 3: Healing phase – the implant bonds with your jaw bone
The bone around the implant grows and integrates with the implant surface during the healing phase, which will last between 3 weeks and a few months depending on the type of implant placed (see healing time examples illustrated below). This depends on the individual medical situation and can be reduced by using implants with Straumann’s SLActive® surface (see the chart below and p. 21). 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 the implant bonds with the bone during the healing phase, your dentist and laboratory partners will create your new, customized tooth.

Step 5: Placement of the final restoration
The final crown is returned from the lab and will be placed by your dentist.

Step 6: Aftercare
Once healed, the implant is part of your body. Just like natural teeth, implants require regular check-ups and conscientious oral hygiene. Your dental team will instruct you on how to care for the long-term success of your implant.

<table>
<thead>
<tr>
<th>Healing time (implant is bonding with the jaw bone)</th>
<th>Final Restoration</th>
<th>6 - 8 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 6 8 weeks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DENTAL IMPLANT PLACEMENT FOR PATIENTS WITH LOW BONE VOLUME

Some patients may not have enough bone to support a dental implant. In this case, your doctor can perform a ‘bone grafting’ procedure before or at the time of implant placement to help your body build new bone for the implant placement.
Reasons for bone loss include:

- Tooth loss
- Gum disease (periodontitis)
- Trauma to the jaw bone

What is “bone graft” material?
Bone graft material is the substance used to build the bone volume necessary for implant placement by helping to regenerate vital bone. Straumann provides effective bone grafting materials that are tested, trusted and designed to deliver excellent results.

Can bone augmentation be avoided?
Under certain conditions – which must be evaluated by your dentist – the bone augmentation step may be avoided by using small-diameter Straumann® Roxolid® material implants (see p. 21).

Fig. 1: Implants need to be anchored in the jaw bone like natural teeth – in some cases additional bone is needed.

Fig. 2: Straumann bone grafting material placed at an implant site to help the body develop new bone to support an implant.
Your quality of life: priceless.

Your health is your wealth, and Straumann dental implant solutions provide:

- Better quality of life
- Comfort and convenience
- Improved oral health and physical appearance

You cannot put a value on your health. When deciding between dental implants and conventional restorations, studies suggest that implants may be less expensive in the long term.2,3
• Dental implants are a cost-effective alternative to conventional restorations and improve oral health-related quality of life.²
• Especially for single-tooth replacement, an implant is a cost-effective treatment option in comparison to a conventional three-unit bridge.²,³
• For the replacement of multiple teeth, dental implants are associated with higher initial costs, but improvements in oral health-related quality of life compared with other treatment options.²

Graph: After 7 years, the costs for a single-tooth dental implant restoration pay off and the long-term maintenance costs are lower than for a conventional three-unit 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, Straumann Dental Implant Patient
Why dentists trust Straumann.

Straumann is one of the best choices for your dental implants – built on a foundation of quality, scientific evidence, and leading-edge technology.

Worldwide Leader, Worldwide Trust
Recognized as a leading provider of dental implants since 1974, more than 14 million Straumann implants have been sold to clinicians in over 70 countries. Rest assured that no matter where life takes you, care for you and your Straumann dental implants is nearby.

Clinical Excellence
Straumann dental implants are one of the most well-documented systems with more than 35 years of extensive scientific and clinical evidence, supported by more than 700 scientific publications5 – few implant companies can make that claim.

Swiss Quality and Precision
Straumann is well known for its commitment to quality and reliability. With Swiss precision engineering roots, Straumann implants and components are manufactured under exacting processes and held to the highest quality standards.

Supported by Science
Straumann dental implants have shown a 97% survival rate in long-term clinical studies.5 This 10-year survival rate (meaning the implant is still secure in a patient’s mouth) is one of the highest observed to date.
Straumann Technologies.
Committed to meeting patient needs.

Straumann offers some of the most advanced dental implant surfaces and high-performance implant materials available. These award winning technologies are premium solutions designed to improve patient treatment, shorten treatment times, and make tooth replacement less invasive.

**STRAUMANN SLACTIVE IMPLANT SURFACE**

Designed to bond faster with bone, reduce healing time, and provide higher predictability, SLActive® is an advanced, clinically proven dental implant surface.

**How does SLActive® work?**
SLActive® cuts healing time to 3 – 4 weeks from 6 – 8 weeks by accelerating and optimizing implant integration. The bone formation process (called “osseointegration”) is initiated earlier, and reaches the stability needed to support an artificial crown (your new tooth) earlier.

Reducing the healing time of an implant procedure, means your treatment is completed and new teeth delivered sooner.

**STRAUMANN ROXOLID® IMPLANT MATERIAL**

Straumann Roxolid® is the first Titanium Zirconium alloy designed for dental implants and provides improved strength over Straumann’s Titanium implants, offering a new option for patients with limited bone or narrow spaces between teeth.

**Fewer procedures means shorter treatment times**
Straumann Roxolid implants can be used when smaller implants are necessary due to insufficient bone, potentially eliminating the need for a bone grafting procedure.
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.

Sally, 61, Straumann Dental Implant Patient

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.

Matiel, 67, Straumann Dental Implant Patient

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

More than Swiss quality.

A sense of trust.

Few companies have so much to offer:

- Over 35 years of clinical evidence
- More than 14 million implants sold worldwide
- Swiss quality and precision
- A trusted brand in over 70 countries
- Advanced Roxolid® implant materials and SLActive® implant surface technology

www.straumann.us/patients

Every surgical procedure carries potential risks. You should always consult with a dental professional prior to treatment. Potential risk factors may vary depending on medical or other conditions of each patient.