

Dental Implants

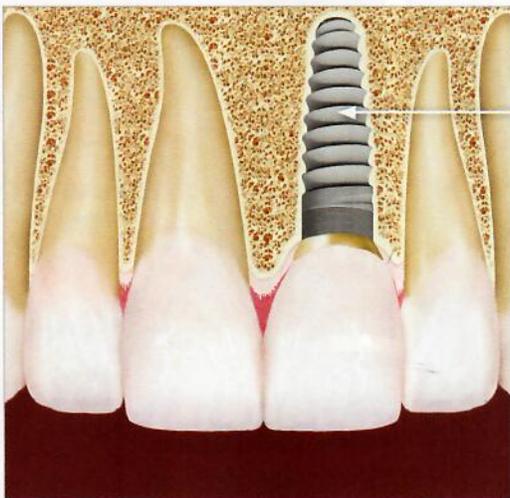
Your Best Option for Replacing Missing Teeth

Dental implants are the gold standard in modern dentistry for tooth-replacement—whether you need one tooth, several teeth, or a full set of new teeth. Why is this option preferred above all others?

For one thing, a decades-long track record has proven dental implants to be the longest-lasting, most natural-looking, and best-functioning substitute for natural teeth. They have a lifetime success rate above 95% — the highest of any tooth replacement option. Dental bridgework, by contrast, will usually need to be replaced within 10 to 20 years.

Dental implants can also help maintain the health of the jawbone. Studies have shown they do this by preventing the bone loss that normally occurs when even one tooth is lost. Wearing removable dentures, on the other hand, actually accelerates bone loss.

Many of the benefits of dental implants stem from the fact that bone cells in the jaw securely attach to them, unlike other options. This means there's no slippage or other movement (which can occur with removable dentures), no problems with eating the foods you really like, and less likelihood of needing periodic repair or replacement (as bridges and removable dentures usually require). Let's look a little closer at the tiny devices that make these big advantages possible.



What Is a Dental Implant?

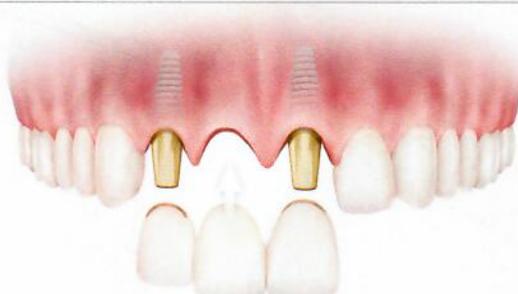
A dental implant is a small titanium post placed in the bone beneath the gums, where it can serve as a replacement tooth root. Titanium is osteophilic (bone-loving), which means bone cells will attach to and integrate with it. The implant body often includes ridges or threads that also help it anchor to the bone. Implants provide an immovable support for the natural-looking replacement teeth attached to them.

Dental Implant Treatment Options



Replacing a Single Tooth

A single implant is ideal for replacing individual missing teeth. An implant-supported replacement tooth looks and feels natural and is healthier for adjacent teeth than either a partial denture or a fixed bridge.



Replacing Multiple Teeth

When 3 teeth in a row are missing, 2 implants can be used to create a bridge that esthetically and functionally replaces the missing teeth without damaging adjacent natural teeth.

Khartoon

When media executive Khartoon learned that her fractured front tooth could not be saved, she worried about how it would affect her career. “The industry I work in is very much relationally driven face-to-face. It’s devastating to think you’re not going to look like yourself because of something you couldn’t control.” Fortunately, an implant-supported replacement tooth was the perfect solution. “The procedure went so well, and my new tooth looks fantastic!” She would recommend the procedure to others “one million percent.”

“My new tooth looks fantastic!”





Replacing All Teeth

A fixed denture (one that doesn't need to come out of the mouth) can be supported by 4-6 implants to replace up to 12 teeth, re-establishing proper esthetics and function in an amazingly lifelike way.



Supporting Removable Dentures

Dental implants can be used to create a supporting bar for a removable over-denture. This option provides the same esthetics as a fixed denture, but it comes at a significant cost savings.

Chris

Chris, a 63-year-old business owner and former heavy smoker, lost his teeth due to advanced gum disease. "I tried to wear dentures," he said, "but it was depressing." However, since replacing all his upper teeth and several bottom teeth with dental implants, he now has a beautiful smile and can eat anything. When he first saw his new teeth in the mirror, "It brought tears to my eyes. I couldn't ask for a better smile." He joked, "I might get a book deal or even a movie!"

"I couldn't ask for a better smile."



The Dangers of Removable Dentures

Removable dentures are a tooth-replacement system that has certainly been around for a long time. Your great-grandparents may well have worn removable dentures.

The image of false teeth in a glass on the bedside table is a cliché of denture wearing. So are the assortment of cleaners and adhesives used with them, and the often-heard complaints that dentures just don't feel right. Slippage or unpleasant odors may cause embarrassment; the loss of self-confidence that can result from denture wearing, though hard to measure, is a real concern as well. Yet there are other problems that could be of even greater concern — problems that could eventually cause a decline in one's overall health.

It's well known that people who wear dentures often have trouble eating "challenging" foods, like raw fruits and vegetables — which, as fate would have it, are just the foods that are thought to provide the greatest nutritional benefits. According to a recent survey, 50% of denture wearers avoid many foods due to these types of difficulties. However, the nutritional problems of numerous denture wearers seem to go even deeper: 29% said they can eat only soft foods (which are often highly processed, with little nutritional value). Another 17% stated that they actually eat better *without* their dentures.

When teeth are lost, the bone that used to support them begins to melt away. That's because bone tissue requires constant stimulation from the tooth's roots to keep rebuilding itself. When that stimulation is absent, bone in the jaw loses volume consistently over time — but this loss occurs in an area of the body that's out of sight, below the gum tissue. The decrease in bone volume not only tends to make you look prematurely aged by compressing the facial features, it may cause TMJ (temporomandibular joint) problems as well.

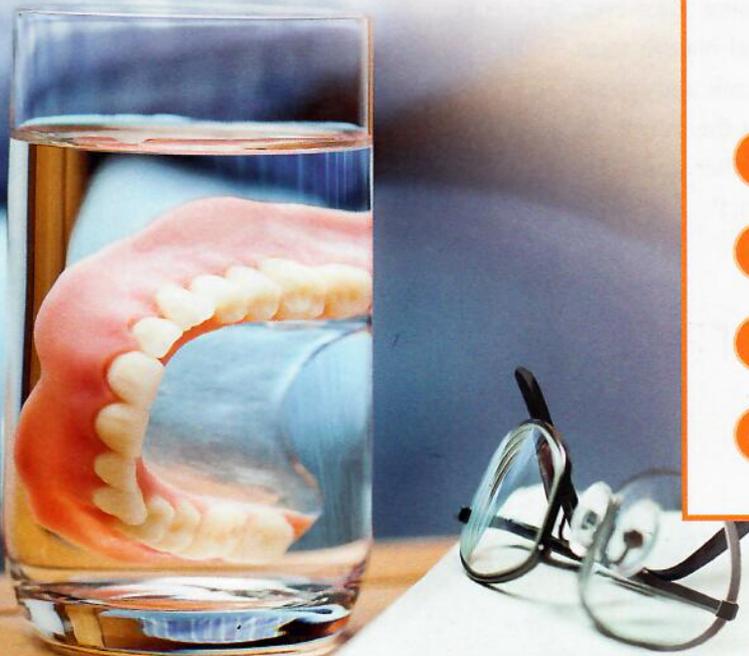
Worse still, wearing removable dentures actually accelerates the process of bone loss. That's because the denture puts pressure on the surface of the bone, rather than distributing it through the entire anatomical structure the way dental implants do. The bone can't handle this type of pressure on its surface, and begins to resorb (melt away) at an increased rate.

If you're wearing dentures or need an answer to the dilemma of missing teeth, ask your dentist whether dental implants may be right for you.

Dangers of Dentures

Progressive Bone Loss in Jaw, Leading to:

- 1 Diminished denture stability over time
- 2 Reduced ability to place dental implants successfully
- 3 Prematurely aged appearance
- 4 Compromised nutrition and chewing ability



The Special Benefits of Dental Implants

No matter how many teeth you need to replace, there are numerous scientific studies demonstrating the ways dental implants surpass other tooth-replacement methods. In general, these fall into two categories: what dental implants do, and what they don't do.

Unlike natural-tooth-supported bridgework, dental implants don't require adjacent healthy teeth to be filed down. Implants don't lead to an increased risk of gum disease, tooth decay, or a root canal problem but research shows these can be issues with bridges supported by filed-down natural teeth. Plus, while studies have shown that those bridges may have a failure rate as high as 10% in just 3 years (and up to 30% in 10 years),* dental implants have been shown in studies to have a long-term success rate of over 95%.

Unlike removable dentures, implants won't shift or feel uncomfortable. They don't develop odors or need special cleaners and adhesives. They don't restrict what foods you can eat or make you feel uncomfortable about chewing, speaking, or smiling. And you'll never have to worry about them slipping or falling out.

One of the biggest benefits of dental implants is that they can help reduce bone loss in the jaw. The natural erosion of bone begins as soon as a tooth is lost — and, if more tooth loss occurs, it may result in the loss of other teeth and lead to a sunken, prematurely aged look in one's facial features. Because dental implants integrate into bone, they provide a stimulus that keeps the jawbone from deteriorating. This helps to maintain a more youthful facial structure — and better oral health.

Another benefit of implants is the lasting value they offer. While there are other options for tooth replacement that may cost less initially, an investment in dental implants provides benefits that truly endure. With proper care, they can last for the rest of your life — and how many other investments can offer that promise? But perhaps the main benefit of dental implants is how they make you feel: like a younger, healthier you.

* Tan, K et al, A Systematic review of the survival and complication rates of fixed partial dentures after an observation period of at least 5 years, Oral Implants Research, 2004:Vol 15, Iss 6, pages 654-666

THE GOLD STANDARD OF TOOTH REPLACEMENT

Dental Implants DO:

- Feel very natural
- Minimize bone loss and appearance of aging
- Have the highest success rate for tooth replacement (over 95%)
- Last a lifetime*
- Resist gum disease
- Restore proper chewing ability

Dental Implants DON'T:

- Slip or move
- Decay
- Need root canal treatment
- Restrict your diet
- Impair your speech
- Typically need replacement

* The first patient that received a dental implant in 1965, died 40 years later with the implant still in place. Close to the Edge - Brånemark and the Development of Osseointegration, edited by Elaine McClarence, Quintessence 2003.



Replacing a Single Missing Tooth with a Dental Implant

Dental implants, hailed decades ago as a cutting-edge technological breakthrough, are recognized today as the preferred option for replacing missing teeth. Their use has become so routine that an estimated 10,000 dental implant procedures are performed every weekday in the U.S. alone. Dentists and patients alike appreciate the solid anchorage these small screw-shaped titanium posts provide for lifelike replacement teeth.

Replacing a single missing tooth with a dental implant offers many advantages over your other choices: a removable partial denture or fixed bridgework. A dental implant stays securely anchored in your jaw, giving you a replacement tooth that looks, feels and functions almost exactly like a natural tooth. A partial denture, on the other hand, needs to hook onto existing teeth. This added stress may cause the healthy anchor teeth to become loose over time.

Fixed bridgework, similarly, presents problems for the healthy natural teeth that are used as supports: In order to hold a bridge in place, at least two natural teeth, one on either side of the space left by a missing tooth, must be filed down and capped. This may cause those support teeth to become more susceptible to decay.

The implant becomes the root-part of your missing tooth. During a minor surgical procedure, it is placed beneath the gum, into the jawbone. Over the course of a few months, the bone will attach to it in a process known as osseointegration. The implant will be capped by a dental

crown that has been created to match your existing teeth. Often there is a connecting piece that goes between them called an abutment. Like the implant itself, this part won't be visible in your mouth. Only the natural-looking crown can be seen.

Sometimes a temporary crown is attached at the same time as the implant is placed so you can go home that day with a replacement tooth. More commonly, the implant is left undisturbed for several months to complete the osseointegration process before the crown is attached. Your dentist will explain which method would work best in your case.

The surgery to place a dental implant is a simple, routine procedure carried out in the dental office. First the area will be numbed so you won't feel a thing. Then the implant will be inserted into your jaw at a precisely planned angle and position to maximize support for your new tooth and avoid anatomical structures such as nerves and sinus cavities. The surgery should take an hour or less, and post-operative discomfort should be minimal.

Once your final crown is attached, your new implant tooth will feel just like all your other teeth, and that's exactly how you should care for it — as if it grew there naturally. While it cannot decay, the implant's connection to your bone can be threatened by gum disease. In order to avoid this, keep up your regular oral hygiene routine of brushing, flossing, and coming in for regular professional cleanings. If you keep your mouth healthy, your implant can last a lifetime.

Marcia

I Wanted a Tooth That Would Last

Smiling always came easily to Marcia. Then several years ago, she accidentally got hit in the face with a cricket bat and “out flew my left front tooth,” she recalled. Marcia tried wearing a partial denture for a few years, but didn’t like the way it felt. She also considered getting a bridge, but wanted “something more permanent.” So she opted for a single dental implant, and couldn’t be happier with the results.

“When I saw my new smile for the first time, I was speechless and it felt like the last four years without my tooth didn’t even happen,” Marcia said. “I can eat, speak and smile without any worry. Sinking these babies into some BBQ is no problem for me!” Marcia said her new tooth has also had a positive effect on her emotionally. “I smile nonstop,” she said. “I now have a boost in my confidence and self-esteem — I look and feel great about myself.”

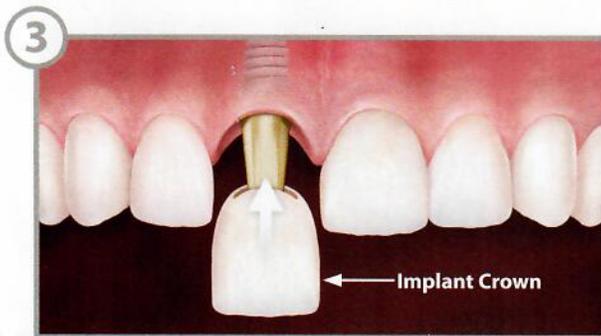
“Implants feel 100% like your real teeth.”

Actual
TeethXpress
Patient



Dental Implant

State-of-the-Art Tooth Replacement



Dental implants are considered today's gold standard for tooth replacement. Your own bone can solidly attach to them and they can't have tooth decay. Therefore, they last longer than any other tooth-replacement option. Implants also help preserve tooth-supporting bone that deteriorates when a tooth is lost. The surgical procedure used to place an implant is actually quite minor and routine, requiring only local anesthesia in most cases. After a healing period, the implant is topped with a lifelike crown custom-made to match your existing natural teeth. Implants have a documented success rate of over 95%, which is significantly higher than other tooth-replacement options.

Advantages

- **Esthetic, functional, predictable, reliable**
- **Does not affect adjacent teeth**
- **Cannot have tooth decay**
- **Will never need root canal treatment**
- **More cost-effective tooth-replacement option over time**
- **Restores proper chewing ability**

Disadvantages

- **More expensive initially**
- **Requires minor surgery**
- **Requires healing time before permanent tooth replacement**

Bridgework

Traditional Tooth Replacement

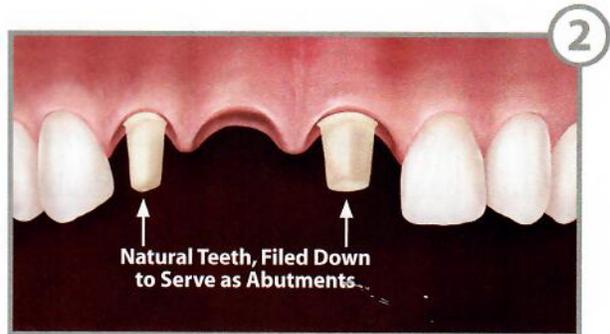
Dental bridgework has been used to replace missing teeth for almost a century. A three-unit fixed bridge requires filing down and placing dental crowns on two teeth — one on either side of a gap left by a missing tooth — and then using those now compromised teeth to support a third crown in between. A three-unit fixed bridge will cost less initially than a dental implant, and there is no healing period. But a major downside is the need to grind down healthy teeth that would otherwise not need dental work. This can weaken those teeth and make them more susceptible to decay and gum disease. Therefore, bridgework often causes more teeth to be replaced eventually.

Advantages

- **Esthetic, functional, predictable, reliable**
- **Less initial cost**
- **Requires less time for final result**

Disadvantages

- **Requires the removal of enamel and some dentin from the adjacent teeth**
- **If the adjacent teeth have crowns, they must be redone**
- **Future tooth decay is a common problem**
- **Root canal treatment may be required**
- **Less longevity than implants***
- **Additional teeth may need to be included in the bridge to handle bite forces**



* Tan, K et al, A Systematic review of the survival and complication rates of fixed partial dentures after an observation period of at least 5 years, Oral Implants Research, 2004;Vol 15, Iss 6, pages 654-666

A Step-by-Step Look at Replacing a Hopeless Tooth with a Dental Implant



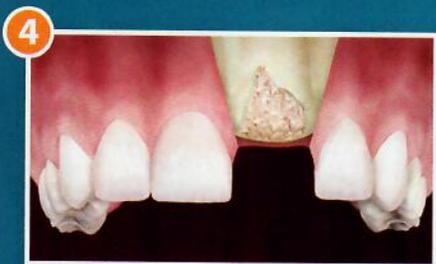
Fractured Front Tooth



Bone Loss



Tooth Extraction



Bone Graft Placed



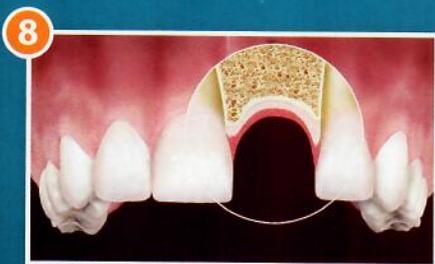
Membrane in Place



Suturing of Gum Tissue



Healed Extraction Site



Bone Repaired



Dental Implant Placed



Implant Abutment Attached



Implant Crown in Place



Final Result

What to Expect When You're Getting Dental Implants

*M*aking the choice to replace your missing or failing teeth with dental implants is a big step... but in terms of bringing back your healthy smile, it just might be the only challenging one you'll need to make. Once you've decided to go with dental implants, your team of dental professionals will take care of the rest. It's a smooth progression from initial consultation and pre-operative planning through the implant procedure itself, concluding with your follow-up care. When it's done, you will have the natural-looking smile you've dreamed about. Want to know how this all happens? Read on!



1

Pre-Procedure

The first step in your treatment is an initial examination and a discussion with your implant dentist about your expectations and concerns. By the time your first meeting is over, several details should be clearer. For example: How many of your teeth are missing, how many are in good condition, and how many are questionable? Would you be best off with a full set of upper or lower replacement teeth — or is it only one or two teeth that need replacement? Do you have any medical conditions that would complicate or preclude implant placement? What can you expect from this treatment — and approximately how much should it cost? Not all of these questions can be answered immediately — but they can be soon.

2

Treatment Plan

Just as your builder wouldn't start constructing your new house without a drawing, your dentist won't place your implants without a treatment plan. Diagnostic images of your mouth can reveal the condition of existing teeth and bone, and show the position of various anatomical structures in the jaw. This helps in terms of planning the number and type of implants to be used, and the locations where they should be placed. Before any procedures are performed, you and your dentist will discuss what type of anesthesia or sedation will work best for you. If you have any other questions or concerns about the procedure, this is the perfect time to raise them. Next, it's on to the big day.

3

Day of Procedure

When you arrive for your procedure, you will be made comfortable with the appropriate anesthesia. If any of your teeth need to be extracted, that will be done first. Then the dental implants will be placed in your jaw. This may require small incisions to be made in the gums, providing access to the bone underneath. Next, tiny holes called osteotomies will be prepared at precise locations in your jawbone. You won't feel any pain because you will be fully anesthetized, but you may experience mild vibrations. Your implants will then be carefully placed in the osteotomy sites and adjusted for a perfect fit. Any incisions will be closed, typically with self-dissolving sutures (stitches). A set of temporary replacement teeth may be attached to the implants so you won't have to leave the office without teeth.

4

Post-Operative Care

When the procedure is over, the healing process begins. For the first couple of days, you will want to go easy on your new implants by eating soft foods. Over-the-counter pain medication, like ibuprofen, is usually all that's needed to control any soreness you may feel. You can return to normal activities within a day or two, but your dentist may recommend a softer diet for a few weeks. As your implants slowly become integrated into your jawbone, your dentist will carefully monitor your progress. After a period of two to three months, your gums will have fully healed and your implants will be firmly anchored in the jaw. At that point, your final teeth will be attached to your implants. With the same routine care you would give natural teeth, they can be expected to last the rest of your life.