



Dental Implants

A Long-Term Solution for Replacing Missing Teeth

What Is a Dental Implant?

A **dental implant** is an artificial tooth root, usually made of titanium or another biocompatible material, that is surgically placed into the jawbone to replace a missing tooth. After the implant heals and bonds with the bone, a replacement tooth such as a crown, bridge, or denture is attached.

Dental implants are designed to restore chewing, speech, appearance, and function while helping preserve the jawbone.

Why Replace a Missing Tooth?

When a tooth is lost, changes begin almost immediately.

Without a replacement:

- Neighboring teeth may shift.
- The opposing tooth may move out of position.
- Chewing may become less efficient.
- Bone in the area of the missing tooth gradually shrinks.
- Facial appearance may change over time.

Replacing missing teeth helps maintain both oral function and long-term oral health.

How Does a Dental Implant Work?

A dental implant has three main parts.

Implant Fixture

The implant fixture is placed into the jawbone and serves as the artificial root.

Abutment

After healing, a connector called an **abutment** is attached to the implant.

It supports the final restoration.

Crown

A custom-made dental crown is attached to the abutment, replacing the visible portion of the missing tooth.

The finished restoration is designed to look and function like a natural tooth.

Who May Be a Candidate?

Many healthy adults are candidates for dental implants.

Your dentist will evaluate factors such as:

- Overall health
- Gum health
- Bone quantity and quality
- Oral hygiene habits
- Tobacco use
- Certain medical conditions

Every patient requires an individual assessment before treatment.

What Is Osseointegration?

One of the unique features of dental implants is **osseointegration**.

During healing, the surrounding bone gradually bonds directly with the implant surface.

This creates a stable foundation capable of supporting normal chewing forces.

Healing typically takes several months, although the exact time varies from person to person.

What Happens During Treatment?

Treatment often involves several stages.

Step 1: Examination

Your dentist or oral surgeon performs:

- A clinical examination
- Dental X-rays
- Three-dimensional imaging (CBCT) when appropriate
- Evaluation of bone and gum health

Step 2: Implant Placement

The implant is surgically placed into the jawbone under local anesthesia.

Sedation may also be available in some situations.

Step 3: Healing

Over the following months, the implant integrates with the surrounding bone.

During this time, temporary restorations may be used if appropriate.

Step 4: Final Restoration

After healing is complete, the abutment and custom-made crown are attached.

The new tooth is adjusted to ensure proper fit and function.

Benefits of Dental Implants

Dental implants may:

- Replace missing teeth
- Restore chewing ability
- Improve speech
- Preserve jawbone
- Maintain facial appearance
- Prevent neighboring teeth from shifting
- Feel and function similarly to natural teeth

Unlike traditional bridges, implants usually do not require altering adjacent healthy teeth.

How Long Do Dental Implants Last?

Dental implants are designed to be a long-term treatment option.

With:

- Excellent oral hygiene
- Healthy gums
- Regular dental care
- Good overall health

many implants function successfully for **decades**.

However, like natural teeth, implants require lifelong maintenance.

Caring for Dental Implants

Implants require daily oral hygiene.

Recommended care includes:

- Brushing twice daily with fluoride toothpaste
- Cleaning between the implant and neighboring teeth
- Using special cleaning aids if recommended
- Attending regular professional maintenance visits

Although implants cannot develop cavities, the surrounding gums and bone can still develop disease.

What Is Peri-Implant Disease?

Inflammation around an implant is called **peri-implant disease**.

Early inflammation (peri-implant mucositis) may be reversible with proper care.

If left untreated, it may progress to **peri-implantitis**, which can damage the supporting bone and threaten the implant.

Good daily oral hygiene and regular dental visits greatly reduce this risk.

Can Smokers Receive Dental Implants?

Smoking increases the risk of:

- Delayed healing
- Implant complications
- Peri-implant disease
- Implant failure

Patients who stop smoking before and after treatment generally experience better outcomes.

Common Myths

"Dental implants are only cosmetic."

False.

Implants restore function as well as appearance.

"Dental implants require special cleaning instead of brushing."

False.

Implants require the same careful daily oral hygiene as natural teeth.

"Anyone can receive an implant immediately."

False.

Successful treatment depends on bone health, gum health, medical history, and other individual factors.

A comprehensive examination is necessary before treatment.

Key Takeaways

- ✓ Dental implants replace missing teeth by functioning as artificial tooth roots.
 - ✓ They help preserve jawbone and restore normal chewing function.
 - ✓ Good oral hygiene is essential for long-term implant success.
 - ✓ Dental implants cannot develop cavities, but the surrounding tissues can still become diseased.
 - ✓ Smoking increases the risk of implant complications.
 - ✓ Your dentist can determine whether dental implants are appropriate for your individual needs.
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References

1. American Academy of Implant Dentistry. *Dental Implants*. <https://www.aaid.com>
2. American Dental Association. *Dental Implants*. <https://www.ada.org>
3. American College of Prosthodontists. *Dental Implants*. <https://www.prosthodontics.org>
4. National Institute of Dental and Craniofacial Research. *Dental Implants*. <https://www.nidcr.nih.gov>
5. World Health Organization. *Oral Health*. <https://www.who.int/health-topics/oral-health>