

What is an Implant?

A dental implant is an excellent treatment for replacing missing teeth. A root form implant is the most common kind of dental implant. It is a small, titanium post that replaces the roots of a missing tooth. A custom-fitted artificial tooth, called a restoration, is secured to the implant, which holds the restoration firmly in place.



Implant post



Single tooth implant



Multi-unit bridge

The benefits of an implant

An implant has several benefits. Like the roots of natural teeth, it stimulates the jawbone when you chew. This preserves the jawbone and keeps it healthy. An implant is strong, comfortable, and secure. When the restoration is in place, the implant looks and feels much like natural teeth.

With careful homecare and regular checkups and cleanings here in our office, an implant can be an excellent long-term solution for missing teeth.



Full arch implant denture

How is an implant used?

An implant can support a variety of restorations, such as a single crown, multi-unit bridges, and full arch dentures. Some restorations, like a single crown and most bridges, are not removable. Others, like many full-arch dentures, can be removed for sleeping and cleaning.

Diagnosis and treatment

Depending on the situation, placing an implant involves several phases, and treatment times can widely vary. First we determine if an implant is right for you. We discuss your health history and treatment goals and perform a comprehensive examination to check the health of your gums and jawbone. We determine if you need any additional procedures, such as bone grafting or gum surgery.

To begin the procedure, a channel is shaped in the jawbone, and then the implant is placed into the prepared space. At this point, it may be possible to place a temporary restoration. Over the course of the next few months, the implant will become securely fused to the bone. The last step is to attach your beautiful final restoration to the implant.

Considering a Single Tooth Implant

When a tooth is missing, a dental implant can be a great choice for replacing it. An implant is a small titanium post that replaces the roots of a missing tooth and supports a custom-made crown.

Problems caused by a missing tooth

A missing tooth can cause a chain reaction of problems, including loss of bone in the jaw, shifting teeth, difficulty keeping teeth free of plaque and bacteria, grinding and clenching, and pain in the jaw joints.

Teeth transmit chewing forces through their roots to the jawbone. This provides the stimulation bone needs to stay healthy, so when a tooth is missing, the jawbone around the area begins to shrink, along with the surrounding gums.

A missing tooth also changes the biting forces on teeth around the space. Neighboring teeth begin to shift, and the opposing tooth begins to extrude out of its socket.

These changes create places around the teeth that are hard to keep clean, so plaque and bacteria quickly accumulate. This accumulation can cause tooth decay and periodontal disease.

Changes in the bite also put improper chewing forces on the shifted teeth. This may lead to grinding and clenching, as well as painful problems with your jaw joint, the TMJ.



Single tooth implant



Finished implant

Diagnosis and treatment

To determine if an implant is right for you, we do a thorough examination. The examination includes recording your medical history in which we discuss any condition that may interfere with healing. We perform a visual examination to check the health of your teeth and gums. To check the health of your jawbone, we take panoramic x-rays and possibly CT (computerized tomography) scans. We take impressions and bite registrations to create an accurate model of your mouth.

When we have thoroughly studied these records, we will be able to discuss which implant treatment options may be best for you.

Benefits of an implant

An implant fitted with a crown effectively replaces a missing tooth. The implant is held firmly in the jawbone, so it feels much like your natural teeth when you talk and chew. The crown is custom crafted to match or enhance your smile. A dental implant is a great way to keep your jawbone healthy, to stop neighboring teeth from shifting, and to maintain a stable bite.

Placing an Implant Bridge

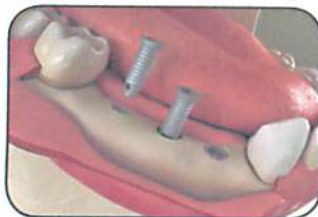
When several neighboring teeth are missing, an implant-supported bridge is an excellent treatment for replacing them.

Although each case will be different, placing an implant-supported bridge generally involves two phases. The first phase is the surgical placement of the implants. The second phase is restoring the implants with the bridge.

The benefits of implants with a bridge

Implants restored with a bridge have several advantages. The implant stops the bone loss that occurs when a tooth is lost, and the bridge prevents the surrounding teeth from shifting into the space. Unlike a traditional bridge, there is no need to reduce the size of neighboring teeth. A bridge retained by implants looks and feels like your natural teeth when you chew and talk.

With proper home care and regular checkups, your implants can be a long-term solution for a natural-looking smile.



Implant posts



Implant abutments



Final bridge



Placing the implants

For the surgical placement of the implants, your mouth is thoroughly numbed. Small openings are made in your gums, and a channel is shaped in the bone to receive each implant.

Next we place the bodies of the implants into the prepared channels. Sometimes covers are placed on the implants, and the gums are stitched closed. This method is called a two-stage procedure. In other cases that allow a single-stage procedure, extensions are attached to the implants at the time of the surgery.

Healing may take several months as the implants become fused securely to the bone. During this time, we may place a temporary replacement bridge.

Restoring the implants with a bridge

If the first phase included closing the gums over the implant, the second phase starts with surgical re-exposure of the implant. Small incisions are made in your gums, and an extension is placed on each implant to bring it above the gumline.

Then we schedule a series of appointments to create your final bridge. Though some of the steps might be different in your case, they usually include removing a temporary bridge and taking impressions of your mouth.

The lab uses the impressions to make an accurate model of your mouth, including the implants. They use the model to create a bridge that fits the implants and your bite.

Depending on the circumstances, we may have you try in the bridge framework, or we have you try in the final bridge. When everything is right, we secure your beautiful new bridge to the implants.

Precision Partial Dentures

Removable appliances

When many teeth in your upper or lower arch are missing, a precision partial denture is a good treatment for replacing them.

Precision partials are removable appliances that are held in place by special attachments that are fitted to your teeth. These attachments help hide the clasps, so they're significantly less visible in your mouth.

With proper home care, regular adjustments and relines, your precision partial can provide a functional bite and a natural-looking smile.

Placing a precision partial denture

The process of making a partial denture varies in each case, and it usually involves a series of appointments.

The first step in placing a precision partial is to shape the supporting teeth, so the attachments precisely fit them. Next, we take impressions of your mouth, including the prepared teeth.



Wax model

Precision partial framework



Checking the bite



Precision partial in place

An accurate model of your mouth is made from these impressions, and the lab uses this model to create the precision attachments.

Second, when the attachments are ready, we place them on your teeth and then take new impressions.

A new model is made, and the denture framework is made on this model to fit your bite and the attachments. In some cases, a wax rim is mounted on the framework for you to try in. This helps confirm the correct relationship between the upper and lower teeth.

Third, the lab then creates a wax replica of the final denture, called a wax-up. Depending on the circumstances, we may have you try in the wax-up, and we note any changes to the fit and to the color, shape and placement of the teeth. We send the wax-up back to the lab, and they process it to create the final precision partial denture.

When the precision partial is ready, you try it in, and we make any necessary adjustments here in the office.

The benefits of a precision partial denture

Precision partials have several benefits. They help stop your remaining teeth from shifting. They balance your bite, so you chew better and have a healthier jaw joint. The dentures also provide support for your lips and cheeks, which helps you speak clearly. The precision attachments hold the dentures in place and help you look your best.

Porcelain Crowns

A porcelain crown restoration

When a tooth needs a restoration or you want to improve your smile, sometimes the best choice is a porcelain crown. A porcelain crown is precision-crafted in a dental laboratory, so it may take two or more appointments to restore your tooth with a porcelain crown.



Porcelain crown placed on model



Temporary crown



Bonding porcelain crown to prepared tooth

Placing a porcelain crown

On your first visit, we numb the area to make you comfortable. We may also use a rubber dam to protect your mouth and the back of your throat while we work.

Using the handpiece, we remove any decay and shape the tooth, so it will securely hold the crown. Next we take an impression of your teeth. The dental lab uses this impression to make an accurate model of your mouth; then they use the model to create a crown that exactly fits your tooth and bite. In the meantime, we often place a temporary crown to protect your tooth.

On your next visit, we remove the temporary crown and try in your new porcelain crown. We check the fit, and when everything is right, we bond or cement the crown in place.

The benefits of a porcelain crown

A porcelain crown has several benefits. Like all crowns, it covers and protects your tooth. But in addition, a porcelain crown is

- ❖ strong and durable.
- ❖ beautiful, with the life-like translucency of natural teeth.
- ❖ healthier for your teeth and gums because the edge of the natural-looking porcelain does not need to be hidden under the gumline.

Diagnosing for Bridges

When teeth are missing, a fixed bridge is a good choice for replacing them. A dental bridge is a great way to maintain a stable bite and restore your beautiful smile. It can also prevent a chain reaction of problems, including

- ❖ shifting teeth.
- ❖ difficulty keeping teeth free of plaque and bacteria.
- ❖ loss of bone in the jaw.
- ❖ difficulty chewing.
- ❖ grinding and clenching.
- ❖ pain in the jaw joint, the TMJ.



Shifting teeth



Before and after



A bridge maintains proper alignment

Why missing teeth need to be replaced

Teeth need each other for support. When you lose a tooth, the biting forces change on the teeth next to the space, causing the teeth to shift. In addition, the opposing teeth no longer have anything to chew against, so they may begin to extrude out of their sockets. These changes create places around the teeth that are hard to keep clean, so plaque and bacteria accumulate quickly. This accumulation can cause tooth decay and periodontal disease.

Changes in the bite can also put improper chewing forces on the shifted teeth, and this can lead to loose teeth and loss of jawbone, especially when periodontal disease is already present in your mouth. An uneven bite makes it harder to chew your food and may lead to grinding and clenching. A bad bite can also create painful problems with your jaw joint, the TMJ.

Determining the need for a bridge

To determine if a bridge is right for you, we'll perform a thorough examination to make sure that the surrounding teeth are healthy and can provide a strong foundation for a bridge. The exam often includes taking x-rays and probing around the teeth to check for periodontal disease.

There are several kinds of bridges, so we'll talk with you about the best type for your situation. We can then begin the steps necessary to create and place your new bridge.