The Use of Dental Implants to Replace Missing Teeth

If you’re missing teeth, don’t despair, this is an exciting time! Technology and biological science have given us the ability to replace teeth in ways we only dreamed of just a few years ago. Dental implants can now be used to replace one or many teeth in a very safe, comfortable, and long-lasting way. Long term implant success— that of 20 to 40 years— is in the 98% range!

The science of dental implants, or Implantology, is the fastest advancing area in dentistry today. According to researchers, the knowledge of implants doubles every two years and we can now help patients to achieve:

- Unheard of comfort
- The ability to chew just about anything
- Fantastic esthetics
- Restoration of facial beauty
- Improved speech

The best part is that your existing teeth do not have to be compromised or “cut down” to achieve all of this. And better still, you will be able to preserve the bone structure, facial muscles, and facial beauty you have now!

Hidden Dangers of Losing Teeth

A progressive loss of bone is the most important reason to have implants placed immediately after a tooth is lost or extracted. Patients often wait too long before deciding to have remedial dental work, causing unnecessary problems and additional expenses. For example, instead of having a simple bone preservation graft at the time a tooth is extracted, the patient decides to wait and then requires a much more extensive and expensive block or sinus graft.

Bone loss is a major cause of the ‘aged face’ and wrinkles

When a tooth is lost, the surrounding bone begins to wither away, causing a loss in facial height, a change in the chin cress, and a “weak” look as the bones become smaller.

Even more disturbing is the sunken cheeks that result from tooth loss and dentures. This ‘sinking in’ of the cheeks is not from the loss of the physical mass of the teeth, it is from the atrophy of the facial muscles, the loss of bone, and the subsequent loss of facial height. And, unlike some people may believe, these changes are not normally reversible with the simple addition of “bulkier” dentures.
**Why Don’t More Dentist Tell Patients about This?**

This is the BIG MISTAKE that many patients make—they wait too long between the time the tooth is removed and deciding to have the implant placed and the tooth replacement. Then instead of having simple bone preservation graft at the time the tooth is extracted, the patient requires a much more extensive and expensive block or sinus graft. If bone loss occurs in the area of the front teeth, The final restoration may have teeth that look too long to compensate for the bone and gum that was lost by waiting.

**Extractions and healing**

The extraction site will typically heal after a tooth is removed. The bone, however, will begin to wither away. Research shows that 40-60% of the bone that once surrounded the root of a tooth will waste away from the area within the first three years after an extraction and continue to wither away at a rate of about 1% per year for life.

**Sinus growth**

Another hidden danger of tooth loss involves the sinuses. If too much bone is lost in the upper posterior tooth areas there is a greater chance that the sinus will expand into—and hollow out-- the remaining bone.

**Posterior bite collapse**

Posterior bite collapse occurs when too many back teeth are lost. The remaining front teeth are subsequently unable to withstand the biting force and the front teeth are eventually pushed out.

**Shifting teeth and loss of ability to chew food**

Teeth will continue to ‘erupt’ until they are biting against some thing. If a tooth is lost, the opposing tooth will grow down to replace it and when teeth move out of place, they are more likely to develop decay and gum disease. Also, teeth that are behind a lost tooth can tip, resulting in additional decay problems and possible tooth loss. Eventually, the entire side of the mouth will collapse.
**So What is a Dental Implant?**

A dental implant can be thought of as a new root made of pure titanium. Titanium is the same material used in medicine for hip replacements and is very strong and highly biocompatible. Implants made of titanium cannot decay and do not require root canal therapy. An advantage of implants is that they stimulate bone growth and thus prevent future bone loss. Once bone disappears, unfortunately, it can only be replaced with a bone graft.

Implants are placed in the bone on the first clinical appointment and are allowed to heal for a period of three to six months. After this healing time the implants are examined to ascertain their osteo-integration, or degree of fusion to the bone. The implant then can be prepared to accept the final prosthetic components.

Once a dental implant is placed, the implant can be used to hold a crown or used as an anchor for a dental bridge. Implants can be even used with other implants and retainers to support, retain, or even completely replace dentures.

Multiple implants can also be used to replace teeth in a variety of ways. Please refer to our Report entitled “Implant Alternatives to Dentures” for further information.

**Low Success Rates for Non-Implant Alternatives**

**5 % Year Success Rates**

- Removable Denture \(83\%\)
- Resin Bonded Bridge \(64\%\)
- Conventional Bridge \(79.3\%\)
- Implant Supported Prosthesis \(98\%\)


*10 Year success rate for partial dentures diminishes to 50%!

**Implants or Bridges?**

One decision that many patients have to decide upon is whether to replace lost teeth with an implant or bridge.
If you are considering having a conventional bridge, please be aware that your other teeth may be compromised. To place a conventional bridge, the teeth adjacent to the site need to be reduced to hold crowns, which then support the missing tooth. This may be acceptable if the teeth are already broken down, but why destroy healthy teeth? And unfortunately, according to insurance company statistics, the average crown placed in America only has about a five year success rate. The implant not only preserves the adjacent teeth, but is easier to clean—and long term can be a better investment. Dental implants can be a highly esthetic solution even in the front teeth.

A summary of the advantages and disadvantages are as follows:

<table>
<thead>
<tr>
<th>BRIDGE ADVANTAGES</th>
<th>BRIDGE DISADVANTAGES</th>
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</thead>
<tbody>
<tr>
<td>• Can be completely finished in about two weeks. Looks natural and is strong.</td>
<td>• Bone loss is not stopped in the areas where the teeth are lost-leading to gaps and food getting caught beneath bridgework over time</td>
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<tr>
<td>• Can be less expensive (short term!) than implants</td>
<td>• Difficult to floss beneath requiring special floss or cleaners. Since bridges are more difficult to clean, they are much more likely to develop gum disease or decay.</td>
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<tr>
<td>• Can be used to additionally realign misplaced teeth</td>
<td>• If any of the supporting crowns are compromised or develop decay around them, the entire bridge will have to be replaced</td>
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<td>• Expected longevity only 5 to 15 years</td>
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<td></td>
<td>• The teeth that will be needed to support the bridge, even if they are in good condition, will need to be drilled away to fit supporting teeth of bridge</td>
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<table>
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<tr>
<th>IMPLANT ADVANTAGES</th>
<th>IMPLANT DISADVANTAGES</th>
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<tbody>
<tr>
<td>• Preserves the bone in the areas where the teeth are lost</td>
<td>• Initial cost is usually more expensive than bridgework</td>
</tr>
<tr>
<td>• Much easier to floss and clean around than bridges</td>
<td>• If the patient waited too long for the implant to be placed additional procedures may need to done to increase the amount of bone for implant support</td>
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<tr>
<td>• Longevity 15 to 40 years.</td>
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<tr>
<td>• Are not susceptible to decay</td>
<td></td>
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<tr>
<td>• Easy to keep clean</td>
<td></td>
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<tr>
<td>• Can be highly esthetic</td>
<td></td>
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<tr>
<td>• Lower long term cost than bridgework due to very low failure rate</td>
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**Replacing a Partial with a Implant Bridge**

Many patients object to having “something removable” in their mouth. Commonly they complain about the feel of all the tooth clasps, food and order getting beneath the partial denture, and the look of the clasps when they smile. Here is how we can substitute dental implants for a partial denture!
1. **Before the procedure**
Three teeth at back end of the mouth are missing. The only real replacement alternative is installing a fixed bridge. The bridge contains all teeth in one piece and is anchored on dental implants.

2. **Installing the implants**
First, the implants are installed. This is normally done in a single session. Sometimes a temporary nay is made soon after the implants are placed.

3. **Attaching the bridge**
The implants need to integrate with the jawbone before the permanent bridge is attached. This is normally done 3-4 months after the implant installation. The time will vary, depending on the bone quality and esthetic concerns.

4. **End result**
The new bridge will handle all the pressure that your strong, natural back teeth did. You will have a stable and secure solution that allows you to eat what you want.

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**Why “cut down” Good Teeth?**

To place a conventional bridge, the teeth adjacent to the site need to be reduced to hold crowns, which then support the missing tooth. This may be OK if the teeth are already broken down, but if the teeth are healthy—why destroy healthy teeth?

![Image of old-fashioned bridge with pegs]

Notice how the “old fashioned” bridge required the teeth be reduced to “pegs.”

In this case, the patient from Wheaton also wanted to keep the space between the teeth—impossible to achieve with a conventional bridge.
Removable partial denture
This alternative is often perceived as uncomfortable and a bit complicated to use. Function can’t be compared to that of a bridge. This denture is made of plastic and metal, which affects its look. It is quite expensive to fabricate due to its many parts. Partial dentures are less expensive, but may compromise the health of the teeth where they are clasped.

Implants Replacing Lower Partial
This lady HATED her lower partial denture. She disliked that “bulky bar” her tongue was banking against. This implant bridge felt just like her lost teeth!

Imagine having to “cut down” the adjacent teeth to place a bridge? The patient was also very worried about getting food caught beneath a conventional bridge or partial denture (especially with future bone loss where the teeth once were).

Complete Implant Resurrections!
We have many patients with extensive dental needs requiring “complete resurrection.” In some cases, the implants can be placed at the same time as the teeth are extracted. Other cases require a temporary denture or one of several other temporary restorations during the reconstruction. This would depend on the individual patient concerns, financial considerations, comfort concerns, and esthetic concerns.
In many cases even complete upper or lower arches can be totally replaced with dental implants. These patients usually say something like “I don’t plastic on the roof of my mouth,” I couldn’t take my food with the dentures.” I want to feel the food again,” “I had a fear of talking or eating in public”, I feel so old”, or some have even reported having frequent nightmares of losing their teeth.

**My Dentist Says My Bone Is Missing!**

In cases where the patient has insufficient bone for implants, the advances in bone grafting and comfort afterwards have been nothing less than astonishing. Additionally, the number of cases that we can restore immediately is increasing.

Keeping up on all the changes challenging! If you are a patient is concerned about comfort during and after these procedures (or did not like what you heard before) check again. The proposed treatment may be easier than you previously thought!

Please visit [www.LiveWithoutDentures.com](http://www.LiveWithoutDentures.com) or contact our office at 630-858-8800 for further information. We’re here to help!

**How Painful is Implant Therapy**

Dental implant surgery has progressed tremendously over the last 10 years! Many implants are now placed at time of extraction, or even placed in a “single stage” procedure. This reduces the number of procedures for greater comfort.

In general, most patients will take medication for discomfort the first day, and reduce that to simple “over-the-counter” medications the second day. For fearful or apprehensive patients, oral or IV sedation is available during the procedure. Depending on the procedure, we usually “taking it easy” with food, keeping it soft for the first few days, and back to normal shortly. I have many patients not need any medication at all!

**About Dr. Thomas Gibbs:**

Dr. Thomas Gibbs has over 28 years of experience in esthetic and cosmetic dentistry. He is one of the earliest members (1988) of the American Academy of Cosmetic Dentistry.

Dr. Gibbs has taken advanced training at some of the most prestigious dental institutes in the world, including the L.D. Panky Institute for Advanced Education, the California Implant Institute, the Misch International Implant Institute, and the Las Vegas Institute for Advanced Dental Studies (LVI). Dr. Gibbs has also earned honorary fellowships in the Academy of General Dentistry (FAGD), and the International Congress of Oral Implantologists (FICOI.)

Dr. Gibbs is also a member of the American Dental Association, the Illinois State Dental Society, the Chicago Dental Society, the Academy of General Dentistry, the International Congress of Oral Implantologists, the American Dental Society of Anesthesiology, and the Dental Organization for Conscious Sedation.