

Dental Implants

General Information and Prognosis of Implant Treatment

We are proud of the fact that today's implant patient at our office can expect a 98% success rate. Believe it or not, dental implants have been a part of Dentistry for over 50 years. Unfortunately, but understandably, the early designs and surgical techniques had a high failure rate. However, a Swedish research team in the late 1960s led by Dr. P.I. Bränemark, developed an implant design and a surgical technique that led to the current "state-of-the-art" implants that are being used today.

Implant Surgery

An implant Surgeon (usually an Oral Surgeon or a Periodontist) places the implant in the jaw bone. The placement of the implant is critical and the location is decided upon by the Prosthodontist and Surgeon after comprehensive diagnostic and laboratory steps are taken; for example: x-rays, dental study casts, trial placement of teeth on laboratory models and possibly in the patient's mouth, CAT scans, surgical templates, etc.

This extraordinary scientific achievement has allowed Prosthodontists world wide to help thousands of patients improve the quality of their dental health.

Prosthodontic - Implant Treatments

General Considerations

- The overall success rates of Dental Implants placed and restored by our team is 98%. This statistical average comprises all implants placed throughout the upper and lower jaw.
- Specific site success rates vary slightly throughout the oral cavity;
 - Example: the lower front jaw has implant success rates of 98 – 99%; the upper jaw at the back has success rates of 94% – 96%; upper front jaw success rates of 96 – 98%; lower back jaw success rates of 95 – 97%.
- The scientific literature has demonstrated that patients who smoke have a higher incidence of implant failure than non-smokers. Smokers who quit smoking 1 month before Implant Surgical Therapy and 1 month after, have success rates almost equivalent to non-smokers.
- Many patients who have missing teeth do not have enough bone to support the implants. In these cases, the Surgeon will graft bone to these areas. This is a very common procedure and the success rate of bone grafts is 99%.
- Patients who are wearing provisional (temporary) bridges or partials or dentures should be seen by a Prosthodontist after each Implant Surgical procedure to make sure that there are no rubbing forces exerted by the temporary on the surgical site.
- Bone grafts have to be left alone for approximately 4-6 months before the implant(s) can be placed. Implants should be placed in bone grafted sites 6 months following grafting.
- Implants, classically, have to sit for 4 months before they can be restored however there are many exceptions to this rule (see examples later on).

- On average, implant treatments (that include bone grafting) take 12 – 14 months to complete.
- Implants do not decay.
- Implants have to be kept clean (flossing and brushing) just as if they were natural teeth; Implants can develop periodontal disease if they are not looked after.
- For a variety of biological reasons, we do not connect implants to natural teeth with fixed bridges.

Bite Forces

- Whenever possible, the natural teeth around the implants should bear the majority of the load (bite forces) in the area. This means that sometimes, natural teeth in the vicinity of the implants may need a restoration (crown), in order to stabilize the bite.
- Parafunctional habits (grinding, gnashing, clenching) are a very destructive habit. It will do a great deal of damage to your jaw joints, muscles, natural teeth, implants, and oral implant hardware and restoration. Dental Splints (nights guards, bite plates and bite appliances) must be worn as required day and/or night in order to diminish the damage to your restorations. Patients who have this habit, or who develop it after implant therapy, must have a dental splint fabricated. The splint must be worn faithfully, as required, and regular dental checkups are crucial.

Implant Failures

- If an implant fails, it usually happens in the first year. If this occurs, the implant usually is extremely easy to remove. The bone area is allowed to heal (up to 6 months) and another implant is placed. The failure rate of this second implant is almost negligible.
- In rare situations, it is possible that an Implant Treatment Plan may have modified, altered, or discarded completely as a result of the following:
 - Poor quality bone
 - Inadequate height and width of bone
 - Inability to place an adequate number of implants in the correct location
 - Failure of one or more implants to osseointegrate
 - Implant failure(s) following osseointegration
- Any implant Treatment Plan that has to be modified before, during or after implant placement will be discussed with the patient (once again, this occurs rarely). The fees quoted for the implant treatment will change accordingly. The fees may be increased or decreased.
- Once an implant treatment is finished, the long-term success rate actually improves slightly from the original stated rate of 98%.

Implant Care & Maintenance

- Once an implant treatment has been successfully completed, regular recall check-ups are critical in order for an implant treatment to have the best prognosis. The first recall check-up following the completion of the Prosthodontic implant treatment is done free of charge.

- The implant treatment should be checked every 6 to 12 months by the Prosthodontist. This check-up is in addition to the check-up performed by your general dentist. Nominal fees will be charged for this semi-annual or annual implant check-up.
- You will automatically be placed on our implant recall list. If, for some reason, you don't receive a recall check-up notice or phone call from us, please call our office to set up your implant check-up appointment.
- Meticulous brushing and flossing around implants is essential to long-term implant success.

Prosthodontic Implant Treatments for Patients With No Teeth

The original goal of Dental Implant Research was to help the edentulous (no teeth) patient. This is perhaps still the greatest achievement of Dental Implant Therapies.

I. Patients With No Upper Teeth (Edentulous Maxilla)

Patients who have no upper teeth (or are about to lose their upper teeth) have essentially 3 choices for implant treatments:

1. Bar Overdenture: this is a modified upper denture (where the palate is removed) that is supported by 4 to 6 implants that are secured to each other by a metal bar. This is a removable denture.
2. Fixed-Detachable Bridge: this is a fixed bridge made up of denture teeth and denture acrylic, attached to a metal frame that is screwed into the implants. These "hybrid" bridges are rigid and fixed in the mouth. They are only removable by the Dentist. Four to eight implants are needed.
3. Crowns and Bridges: This is a series of porcelain fused to gold crowns and bridges that replace approximately 12 – 14 teeth. This is as close to getting your "own teeth" back in your mouth (only better!) as you can get. Eight implants are needed for this treatment.

All three of the above choices are excellent and each option has its own unique features.

II. Patients With No Lower Teeth (Edentulous Mandible)

Only patients who have had to endure the nightmare of wearing a loose lower denture can fully appreciate the phenomenal change that dental implant treatment has made in the quality of their lives. Patients who have no lower teeth, or, are about to lose all off their lower teeth have essentially 3 options:

1. Bar Overdenture: this is a lower denture that is fabricated with a specially designed reinforced metal support, with clips and snaps that snap onto a bar which has been screwed down to the implants. The bar is not removable by the patient; the denture is removable by the patient. Ideally, 4 implants are needed.
2. Fixed-Detachable Bridge: this is a fixed bridge made up denture teeth and denture acrylic attached to a metal frame that is screwed down to the implants. These "hybrid" bridges are rigid and fixed in the mouth. They are only removable by the Dentist. Traditionally, 5 implants are needed in order to fabricate the hybrid bridge. Depending on the anatomy of the jaw,

sometimes 4 implants can be used. **IN MANY SITUATIONS, PATIENTS ARE ABLE TO GET A FIXED BRIDGE, SECURED TO THEIR IMPLANTS, ON THE SAME DAY THAT THEY GET THEIR IMPLANTS.**

3. Crowns and Bridges: This is a series of porcelain fused to gold crowns and bridges (caps) that replace approximately 12 – 14 teeth in the lower jaw. This is as close to getting your own teeth back in your mouth, as you can get. The results are absolutely amazing and patients can then throw their old denture away. Ideally, eight implants are needed for this treatment.

Prosthodontic – Implant Treatments

Implants Supporting Crowns and Fixed Bridges

- One of the greatest advantages of Dental Implants retaining crowns and/or fixed bridges is the ability to replace missing teeth without having to touch the healthy, unrestored, adjacent teeth.
- Patients who have had implant retained crowns and bridges – can chew just as if the crowns were on natural teeth.
- These restorations look and feel as if there was a natural tooth root supporting the crown (or bridge) instead of an implant.
- In many cases, temporary crowns retained by the implant(s) can be made within 4 weeks of the implant placement.
- In certain situations, temporary crowns can be made on the same day as the implant surgery.
- Once the final implant post is secured to the implant, the final crown is ultimately cemented over the post as if it were a natural tooth.
- At this point, the implant retained crown(s) should be treated as if it were a natural tooth or teeth. Proper cleaning and regular check-ups are essential.
- When multiple missing teeth are to be restored with implant retained crowns, the crowns may be individual or they may be attached together (splinted). There are numerous reasons for both scenarios.
- When multiple missing teeth are to be restored, it is not always necessary to have an implant placed for each missing tooth. Each treatment is unique and should be discussed with the Prosthodontist.
- The implant treatment should be checked every 6 – 12 months by the Prosthodontist. This check-up is in addition to the general dental check-up performed by your general dentist. Nominal fees will be charged for this implant check-up. The first implant check-up after the completion of the implant treatment is free of charge.

For Patients Who Are Missing Some of Their Teeth

Implant Supported Partial Upper or Lower Dentures

- When a partial denture is the only possible treatment option, implant therapy can still play a key role in helping to retain the partial.
- Implant(s) can be placed at selected sites and special clips can be used to help retain the partial denture and to help it become more secure in the mouth during chewing and talking.
- There are many possible treatment scenarios combining partial dentures and implants. Please feel free to discuss these with any member of our Oral Health Team.