

Patient Information Sheet on Implant-Based Care

This document provides you with information regarding your implant-based care. It is meant to inform you on advantages of dental implants, general phases of implant-based care, some possible problems and complications that may arise and it also answers some frequently asked questions. This document may not include all treatment steps and some possible complications, and not all items mentioned apply to all clinical scenarios. *Your specific treatment scenario will be discussed with your doctor.*

What is an Implant?

An implant is a root-shaped titanium manmade fixture (it may look like a screw) that is placed in your jawbone with great precision. After healing for several months, the implant surface and your bone fuse. The implant will then be ready to support a crown, a bridge or a denture.

What are the Advantages of Implant Treatment?

Implant-based care is a predictable dental treatment modality which has improved the quality of life for dental patients. Dental implants may be used to replace single or multiple missing teeth or assist in retention and comfort of removable dentures, improving chewing function and allow for use of smaller dentures. In other words, use of dental implants supporting a fixed or removable prosthesis, restores the lost esthetics and function associated with missing teeth.

For patients with missing teeth, dental implants can support a crown or bridge to avoid preparation of natural teeth and connecting them together to support a conventional bridge. A healthy implant also preserves the bone around it which otherwise may resorb when not holding teeth.

- A crown replaces a single missing tooth in a **fixed** manner and connects to the implant by a fixation screw.



- A bridge replaces multiple missing teeth (or even all missing teeth in an arch) in a **fixed** manner and connects to the implants by way of multiple fixation screws.



- An overdenture is a **removable** device that replaces some or all teeth in one arch. It clips into place by attachments and is removable by you. It shares some of the characteristics of a regular denture (some degree of movement) and benefits from the implants by clipping onto them (added retention and stability and improved chewing function).



What is the General Flow of Implant-Based Care?

1. Examination
 - medical and dental history, clinical assessment (including bone assessment), radiographs, CT scans, impressions to make casts, photographs, etc.
2. Implant surgery provided there is enough bone volume*
 - following implant surgery, it may be possible to place a temporary restoration on the same day, or the implant(s) may require a healing period of 3-6 months when a temporary removable prosthesis is worn
3. Final restoration
4. Long-term follow-up and maintenance (essential)

Implant Placement Surgery

The surgery is generally undertaken while you have local anesthesia, you will be awake but not feel any pain. Either a small incision or a hole is made in your gums (through a guide), the bone will be precisely prepared, and the implant will be placed into the bone. In general, over the counter pain medications (e.g., Tylenol or Advil) provide adequate pain relief. At times the bone quality or quantity or other anatomical restrictions may not allow optimal placement of the implant, in which case the surgery may need to be aborted and the site will be grafted for future implant placement. It is always our preference to identify this type of case in advance.

After surgical placement, one of three scenarios will exist:

1. The implant(s) will be covered underneath the gum tissue entirely
2. A “healing abutment” will be placed on the implant(s)
3. A temporary crown/bridge will be placed on the implant(s)

Your specific treatment scenario will be discussed with your doctor.

* What if there is Insufficient Bone?

If the amount of bone is insufficient, one or multiple grafting procedures may be required. This may be a Bone Graft to the ridge or a Sinus Graft. This may or may not be in conjunction with a

gum graft. A 6-9-month healing period is required following either of these procedures before implant(s) can be placed.

- **Bone Grafting**

Bone grafting may be required to optimize the bone surrounding a future implant. Bone grafting products are either human or animal-derived and are safe and effective. Your own bone replaces the graft in a few months and after adequate healing the implant(s) can be placed.

- should you have any personal or religious preferences regarding the use of any specific materials, please advise us in advance.
- bone grafting may not be successful at times, as the grafting may get resorbed or rejected by your body or may get infected. In such cases the procedure needs to be repeated.

- **Sinus Graft**

If there is inadequate bone in the back part of the upper jaw typically due to enlargement of the sinuses, a sinus graft procedure may be indicated to optimize the bone quantity. Implants may be placed simultaneous with or after a few months of healing after the sinus graft procedure.

- any pre-existing sinus infections may need to be controlled prior to this procedure.
- if the sinus membrane ruptures during the sinus graft, the procedure may need to be aborted and redone after 4-6 months of healing.

- **Gum Grafting**

If there is inadequate gum tissue around the proposed implant site, the gum may need to be grafted for a more predictable and esthetic outcome. The gum may be harvested from the palate (which regenerates itself in a few weeks).

What if I Currently Have a Tooth (Teeth) that Require Extraction Before Implant Placement?

If teeth that require removal are present in the planned implant site, they may be removed prior to implant placement (with or without grafting the site) and implants may either be placed in conjunction with extraction (at the same time) or following a specified healing period. This will be assessed on a case by case basis.

What Can I Expect After Implant or Grafting Surgery?

After the surgery there may be some temporary discomfort/soreness, bleeding, bruising, swelling, temporary numbness and occasional infections. Please read the post-operative instructions given to you carefully.

Are there Risks to Implant Treatment?

Implants are very successful dental treatments (90-95% surgical success rate for the implant body). They are in fact more successful than most dental treatments provided; however, occasionally complications/failures do occur which may require additional surgical and/or prosthodontic management. It is important to remember that the crowns that are placed on implants may have their own complication rate based on the types of forces being placed on them. The risks are listed but not limited to:

- damage to adjacent anatomic structures (e.g., adjacent teeth), nerve damage/permanent numbness of the affected area (chin, lip, or tongue on the affected side)
- failure of bone to integrate with implant (implant rejection, implant failure). This may be together with infection and bone loss and can occur in 5-10% of times, leading to looseness of the implant which has to be removed.
- failure of the bone grafting material, leading to need for additional surgical procedures
- post-operative infection
- compromised or poor appearance of the new implant prosthesis
- prolonged period of adaptation to the new implant prosthesis (e.g., speech or feel) or inability to get used to the new implant prosthesis
- future fractures, breakages, loosening, or wear of the prosthetic teeth, the prosthetic screws connecting them to the implants, or the implants themselves, and need for additional prosthetic procedures

Some reasons for implant failure may be the following: smoking, uncontrolled diabetes, gum disease (periodontitis), heavy biting, and poor care of the mouth. Some cases of implant failure may have an unknown reason in patients with no risk factors.

Alternatives to Implant-Based Care

Treatment alternatives may be a removable denture, a bridge, a Maryland (resin bonded) bridge, orthodontics and not undergoing any treatment at all, which will be discussed with you along with their advantages and disadvantages.

Temporary Solutions While Healing

Depending on your clinical situation, one or a combination of the following may be possible:

- no temporary prosthesis
- a removable plastic temporary denture (flipper)
- a removable clear temporary denture (“Essex” retainer)
- a fixed temporary bridge that attaches to the adjacent teeth
- a fixed temporary bridge that attaches to the implant(s)
 - all temporary prostheses have limitations (appearance, fit, comfort, and durability).
 - they may be brittle, may feel loose, and may dislodge easily. You will need to be careful with your diet and, in some cases, you may be advised not to eat with your temporary prosthesis in place at all.

- in some situations, the removable temporary denture should not be worn over the surgical area until after adequate healing.

Fabrication of the Final Crown, Bridge or Overdenture

When the implants are ready for restoration the following steps are undertaken:

1. assessment of your implant(s) health and integration
2. making impressions of the implant(s) and several fitting appointments
3. several adjustment appointments after placement of your prosthesis

The final prosthesis will look and feel very similar to your natural teeth; however, some differences may exist and some adaptation (in terms of feel, bite, chewing, speech, appearance and comfort) is required.

- there may be changes to the adjacent teeth over time in terms of gum position (shrinkage or enlargement), movement of teeth, change in color, etc.
- the implant-prosthesis may undergo changes over time such as gum shrinkage, wear and change in color.

Please understand that implants and prostheses do not last forever. There will be a need for remedial treatment at some point in time.

After Completion of Treatment

- regular check-ups
 - clinical exam and x-rays (initially every 6 months and then at yearly intervals as needed and determined by your dentist)
 - assessment of the bone, the prosthesis, and your bite
- keeping your teeth and your new prosthesis clean (at home and professionally cleaned on a regular basis at a dentist's office). Failure to do so may cause development of an infection and may cause failure of your implant(s) or the prosthesis.
- being cautious while eating
- possible need for a nightguard to protect your teeth and prosthesis
- possible complications: wear and tear, chipping, loosening of the prosthesis or the screws, breakage or fracture of the prosthesis or the screws, recession of gums, etc. You are responsible for all costs associated with the diagnosis and management of such complications.

Fee Structure

- doctor's professional fee(s) for the procedures
- laboratory fee(s)
- material fee(s) (implant parts, grafting materials, etc.)

- Once the implant restorations are placed, for a period of three months adjustments will be provided at no additional cost, after this period you will be charged accordingly for the annual and semi-annual recall appointments and any treatment provided.
- Please note that the cost of treatment is an estimate and does not include the cost of CT scan(s), recalls, repairs, modification or remakes of the temporary or the final prosthesis, or management of complications (e.g., implant infection, implant fracture, screw loosening, screw fracture, acrylic or porcelain fracture, gum recession, etc.)
- Every effort is made to execute your treatment plan as it is originally agreed upon. However, unexpected clinical findings or your body's unexpected response to treatment (e.g., occurrence of infection, healing problem, or difficulty adjusting to the new prostheses) may cause deviation from or alteration of the original plan. These may lead to the need to reassess/modify the fees.

We hope that this information pamphlet helps you better understand your implant-based care, please don't hesitate to contact us should you have any questions or concerns.

I have read and understood this document.

Patient's name:

Patient's signature:

Date: