

WORKING KNOWLEDGE OF DENTAL IMPLANTS

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INTRODUCTION

Face is a reflecting mirror of an Individual's personality and if it is laden with a pleasing smile, personality gets complimented exponentially. There is a certain feeling each one of us has when we look into the mirror and feel really confident about our appearance. It sets the mood for our day. Teeth impart beauty to the face whereas missing teeth not only cause problems with appearance, but also makes speaking and eating food difficult. If you have gaps in your smile where your permanent teeth used to reside, unfortunately, they keep you from feeling your best. Missing teeth not only affects your self-confidence, but also has a dramatic impact on your quality of life and you may find that more is missing from your life than just teeth. You may also miss out on good nutrition and social engagements.

Missing teeth may

1. Limit your choice of food and therefore your nutrition and general health.
2. Make you feel isolated either socially or on the job.
3. Effect relationship with loved ones.
4. If not treated, missing of some teeth can place stress on the remaining teeth requiring them to do more work. This can lead to further tooth loss.
5. Missing teeth for longer time also leads to bone loss making the fitting of traditional dentures difficult or impossible.

Teeth work together as a finely tuned machine with the upper and lower teeth meshing with each other in a specific manner. Loosing even one tooth could be the start of serious problems, if it is not replaced promptly. For years the best solution for missing teeth were removable partial and complete acrylic dentures, or fixed bridges.

When teeth are removed, Mother Nature assumes there is no need for the bone that supported the teeth. Over a period of time the bone slowly yet progressively diminishes. In fact both upper and lower jaw bones get smaller or shrink. This process is called resorption, occurs at a more rapid rate if all the teeth in the jaw are missing. But it also occurs when just some of the teeth are missing. If left untreated the loss of jaw can progress so far that a denture will no longer stay in place how much sticky adhesive is used. Not only the front teeth but the teeth at the back must also be replaced otherwise it can lead to an altered bite. If a number of these teeth are missing and not replaced, it may lead to collapse of facial features.

Inherent problems associated with conventional dentures and bridged made man to endeavor and find a more

natural replacement solution for missing teeth. Modern, space age materials have allowed that quest to become a reality. Today Dental Implant is possible because of extensive experimental research and clinical trials worldwide.

Dental implants are so natural looking and feeling that you may forget you ever lost a tooth. You know that your confidence about your teeth affects how you feel about yourself, both personally and professionally.

An Implant is essentially a sophisticated titanium screw which is placed into jaw bones to replace the root of a lost natural tooth. The implant fuses with the jaw bone to form a secure foundation for tooth replacement. The end result...replacement teeth that look, feel and function just like natural teeth. The embarrassment, irritation and self consciousness often experienced by people who have missing teeth, those who wear dentures or who have suffered with older methods of tooth replacement are overcome with the confidence of permanently anchored dental implants. Implant therapy has been tremendously beneficial in patients who have been unable to wear or do not want to wear removable partial or complete dentures. Dental Implants offer solid, non-mobile support for replacement teeth which act and feel like natural teeth. Since implants are attached to your jaw bones they provide distinct advantages over traditional methods of replacing missing teeth. Multiple implants can be placed in the upper and lower jaws and a fixed prosthesis can be given. Implants can also be used to stabilize the dentures so they are more comfortable to wear. This is very effective for people who have been wearing dentures for an extensive period of time and whose jaws have shrunk to the point where the dentures are very loose. This is especially true of the lower dentures.

Why have Implants.

Dental Implants are one of the finest treatment options dentistry has to offer. With their ability to improve the quality of your life and health it has become the accepted alternative to traditional methods of replacing missing teeth.

1. Implants are an alternative to conventional bridges and partial dentures.
2. If you find that your dentures move around a lot, Implants will help to anchor the denture in place.
3. When teeth are lost, the jawbone may start to shrink. Implants can help slow this process down.
4. You may be advised using Implants to support a bridge rather than cut into healthy teeth on either side of the gap.

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Key benefits of Implants

Dental implants are today's best alternative to natural teeth. They can be your doorway to renewed self-confidence and peace of mind. Implants provide innumerable distinct benefits like.

1. Implants restore proper chewing function and so you can enjoy foods previously too difficult to eat.
2. You feel confident that your replacement teeth would not wobble, move, or loosen.
3. You regain the closest thing to the look, feel and function of your natural teeth.
4. Throw away those gooey adhesives.
5. Forget about unsightly partial denture clasps, which place damaging pressure on remaining natural teeth.
6. Eliminate irritated and painful gums
7. Improve your speech by eliminating or reducing the fullness of full or partial dentures.
8. Replace missing teeth with the look and feel of natural teeth without having to cut down healthy teeth.
9. Dental implants help stop the progressive bone loss and shrinkage of your jawbones by mimicking the roots of natural teeth.
10. Dental implants are clinically proven with success rate in excess of 95%.

Clearly dental implants are one of the finest treatment options dentistry has to offer. With their ability to improve the quality of your life and health it is easy to understand why they have become the accepted alternative to traditional methods of replacing missing teeth.

What are alternatives?

The alternatives to Implants are Dentures or Bridges. On the other hand, you may choose to simply accept the space where a tooth is missing.

A denture usually includes a metal and/or plastic base carrying plastic or porcelain artificial teeth. It is a removable replacement for a few missing teeth or a whole set of teeth. Dentures are very common but they can become loose, making it difficult to eat, and speak. One or more Implants can be fitted to help support and retain dentures.

A bridge consists of artificial teeth cemented onto adjacent natural teeth. When preparing a conventional bridge, the dentist needs to shape the teeth on either side of the gap so that they will successfully hold the bridges. The bridge is placed over the gap and the teeth on either side and then cemented into place.

Advantages of Dental implants over Dentures or a bridge

Every way you look at it, Dental Implants are a better solution to the problems of missing teeth.

Many patients who have selected dental implants describe a quality of life that is much more comfortable and secure than the life style endured by those with fixed bridges or removable dentures. Dentures often make a person feel and look older than they are, cause embarrassment in social situations when they slip and click, and restrict the everyday pleasures of eating comfortably

When they count the benefits they enjoy as a result of their dental implants, patients say their implants eliminate the day-to-day frustrations and discomfort of ill-fitting dentures. They allow people to enjoy a healthy and varied diet without the restrictions many denture wearer faces. With a sense of renewed self-confidence, many people rediscover the excitement of an active lifestyle share with family and friends and the chance to speak clearly and comfortably with co-workers. For all these reasons, people with dental Implants often say they feel better...they look better...they live better.

Are you a candidate for Implants?

Dental Implants are suitable for anybody who has lost his/her teeth in an accident or due to some dental misfortune or neglect. Whether you are a young, middle aged or older adult, whether you need to replace one tooth, several teeth, or all your teeth, there is a dental implant solution for you. With the exception of growing children, dental implants are the solution of choice for people of all ages.

Dental treatment may be right for you, if you

1. Have one or more missing teeth.
2. Have a jawbone that is reached full growth
3. Have adequate bone to secure the implant or are able to have a bone grafting procedure.
4. Have healthy oral tissues.
5. Do not have health conditions that will impair bone healing.
6. Are unable or un-willing to wear dentures.
7. Want to improve speech.
8. Are willing to commit several months to the process.

The Implant Consultation

It would involve the following

1. **The Oral Examination.** Your Implant doctor will evaluate
 - a. The health of your gums and an overall oral cavity examination.
 - b. The quantity and quality of the bone, which is present where the teeth were previously extracted, or from where they will be extracted. The ridge where the teeth were previously extracted must have a minimal thickness of bone in order for an implant to have a high degree of success
 - c. The health of any remaining teeth and if there is any

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gum disease present.

2. The X-Ray Examination. The X-Ray examination will help determine.

- If there is enough bone above the nerve, which runs through the lower jaw- if you are needing to have lower implants placed.
- If there is enough bone below the sinus cavity of the upper jaw- If you are needing implants in the back of the upper jaw.
- How dense is the bone-this is only a rough approximation of the bone density. Actual bone density can't be accurately determined until the implant surgery is being done.

3. The Case Treatment Plan

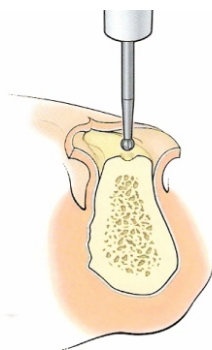
A projection should be made regarding.

- What type of implant-supported tooth reconstruction do you desire?
- Whether that type of reconstruction can be done with the bone that you have

- How many implants will be needed for your case.
- Discussion about actual reconstruction with the dentist in detail-if any thing specifically desired.
- Are there any special considerations regarding your case.

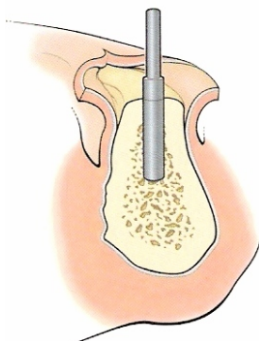
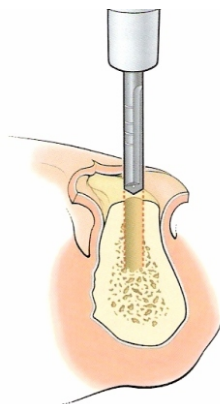
4. Surgical procedure: Dental Implants are inserted into the jaw bones primarily by two means.

- Drilling technique:** this technique is utilized in situations where bone is tough and hard.
- Condensation technique:** Indian population has a predilection for softer maxillary bones and to achieve a better primary stability to the dental implants, it is more advisable to follow condensation than drilling technique to place implants. This will allow getting more compact bone finally.

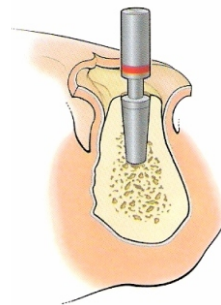


Step 1. Creation of full thickness crestal flap and localization of implant site

Step 2. Preparation of implant bed with pilot drill initially

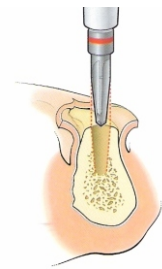


Step 3. Paralleling pin inserted into implant bed to check its alignment in relation to adjacent teeth or another implant

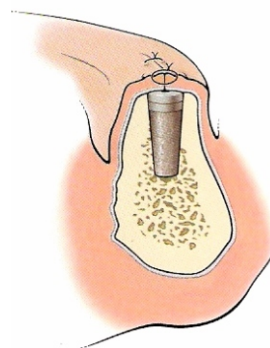


Step 4. Preparation of final implant bed through use of successive drills of larger diameter till the final size

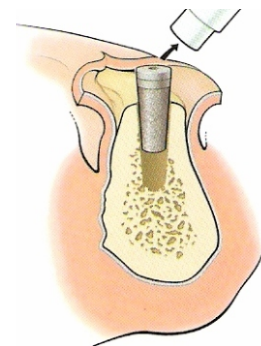
Step 5. Application of trial fit gauze to ensure the final preparation of implant bed



Step 6. Insertion of implant into its prepared bed



Step 7. Repositioning of the crestal mucoperiosteal flap



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During initial healing period any inadvertent transmucosal loading of the implant should be eliminated, especially during the first week of healing in order to achieve optimal osseointegration, however, if an overdenture is indicated it must be generously relieved at the implant sites and lined with a soft liner.

Implant loading

The minimal healing period between initial placement of implant and second stage uncovering of Implant is 10-14 weeks in anterior mandible and 16-20 weeks in posterior mandible and maxilla. This time period is depending on the bone quality.

CONCLUSION

Dental Implants are technologically advanced form of reconstructive dentistry and the definitive choice of people un-willing to compromise with more routine methods, such as removable dentures and bridges. The high degree of predictability for dental implants ensure that it confidently offer a more advanced alternative to conventional techniques and help enhance your quality of life.

Modern dental implant treatment is highly successful, as a general guideline, the five years success rate of dental implant is well above 95%. Despite the overall high success rates with dental implants treatment, there is still the possibility of failure, which can be contributed by various factors and conditions, such as poor healing power, poor bone quality, smoking, diabetes and poor maintenance of oral hygiene. In spite of the fact that Dental Implant provide a very stable and comfortable alternative

to lost natural teeth, they still are metal only and one should not compare them with natural teeth, which has tremendous capabilities of readjustment to varying unfavorable oral factors, and hence desirably need dedicated meticulous and scrupulous maintenance of oral hygiene in the form of brushing, flossing and regular dental check-ups for long term success of implant survival. Clearly dental implants are one of the finest treatment options dentistry has to offer. With their ability to improve the quality of your life and health it's fast becoming a traditional method of replacing missing teeth.

Make Dental Implant a Success.

Most dental implants are successful. Still you can help your dental work and remaining natural teeth last longer, if you:

- a. Practice exceptional oral hygiene. Just as with your natural teeth, implants, artificial teeth and gum tissues must be kept clean. Specially designed brushes such as interdental brush that slides between teeth, can help clean the nooks and crannies around teeth, gum and metal abutments.
- b. See your dentist regularly. Schedule dental check ups every 6 months to one year to ensure the health and proper functioning of your implants
- c. Avoid damaging habits. Do not chew hard items such as ice and ice candy, which can break your crown and natural teeth. Avoid teeth staining tobacco and caffeine products. Get the treatment, if you grind your teeth (Bruxism)

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