

DENTAL IMPLANT



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Implants are artificial tooth roots, made of pure titanium or titanium-alloy, which are inserted into the jaw, where it performs the function of the root of a natural tooth that has been lost.

Implant supported denture

A full denture is difficult for many patients to wear and get used to. Sore spots and difficulty chewing are caused when a denture moves around in the mouth. Over time the dental ridges required to support a denture will shrink creating a growing problem keeping dentures in place.

Implants can be utilized to hold the denture in place. There will be a major improvement in fit and function.

Upper & lower dentures require 2 to 4 implants to properly hold them in place for normal function. Additional implants will provide additional stability.

How can a dental implant support a dental prosthesis?

Dental implant acts as anchors for a replacement tooth or crown or a set of replacement teeth.

At which age can implant placed?

- Dental implant can be placed at any ages.
- Dental implants are especially practical for patients who can no longer wear removable prosthesis.
- Good health & adequate bone are the most critical factors for implant placement.

Dental implant can be placed when:

- Vital anatomical structures cannot be damaged.
- There is no active skeletal growth.
- There is no active infection & inflammation.
- Sufficient bone.
- Sufficient space.
- No skeletal discrepancies.
- Good quality bone.
- Good oral hygiene.

TREATMENT

There are various number of implants placed in the jaw for better stability of the denture:

1. Two (2) Implants with "ball attachments" is designed to basically stabilize the denture.
2. Four (4) implants with a "bar attached" to them provide greater stability and security and still have the advantages



of a removable denture. The bar connecting the implants supports the denture.

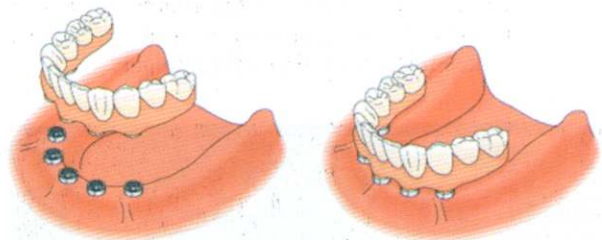
By securing the denture in this manner, denture sore spots and tipping are no longer present. This gives an extremely stable and secure result.



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3. By placing 5 to 6 implants in either the upper and lower jaw, a non-removable denture can be made that is screwed into the implants. This provides the ultimate in denture stability and supports the lips and soft tissues.



Treatment planning:

1. Prosthodontic assessment
2. Surgical consultation.
3. Radiological assessment.



PATIENT AGED 76 YEARS CAME TO OUR CLINIC WITH THE COMPLAINT OF DIFFICULTY IN EATING FOOD & WAS INTERESTED IN GETTING THE IMPLANT SUPPORTED FIXED PROSTHESIS
PATIENT BEFORE IMPLANT PLACEMENT

IMPLANT IS PLACED IN TWO STAGES OF SURGERY: FIRST SURGERY

The first surgery involves placing the implants in the jawbone. During the first surgery, an incision is made in the gum where the implant will be placed. A hole is drilled in the bone, the implant is placed into the hole in the bone, and the incision is stitched closed. After this surgery, patient should avoid putting pressure on the implants. Patient will not be able to wear temporary denture for about four weeks, and should avoid eating hard foods during this time. After four weeks, pt. will be able to wear temporary denture again. The temporary denture will, however, need to be modified, to make sure it fits properly, and it will also be given a soft relin, which will help to reduce the pressure on your gums.

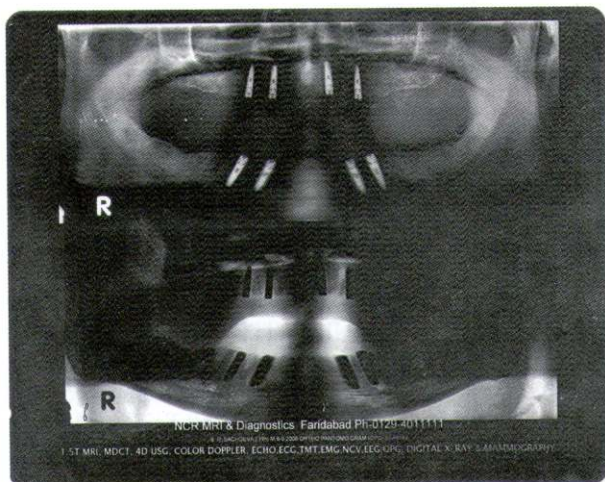
After the first surgery, wait for three or four months, before scheduling the second surgery. During this time, the bone and the implants integrate (attach and fuse).



**RIDGE AFTER REMOVAL OF SUTURES
(AFTER 7 DAYS)**

SECOND SURGERY

Once the implants have become fused with the bone, the second surgery can be scheduled. Confirm whether the implant is ready for the second surgery by taking an X-ray. A small incision is made in patient's gums to expose the tops (heads) of the implants.



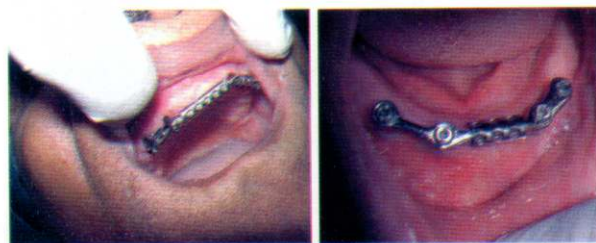
X-RAY (4 MONTHS AFTER PLACEMENT OF IMPLANT)

A healing abutment (collar) is placed on the head of each implant after it is exposed. This encourages the gums to heal correctly. The collar is a round piece of metal that holds the gums away from the head of the implant. The collar will be in place for 10 to 14 days. Then temporary denture will be adjusted again and it may be given another soft relin. The relin material will secure the denture to the healing abutments



PLACEMENT OF COLLAR (GINGIVAL FORMER)

About two weeks after the second surgery, the healing abutments will be replaced with regular abutments. Gums should now be healed enough to make an impression of gums and implants. The impression is used to make a working model of implants and jaw, which is used to make the denture framework and teeth



BAR PLACEMENT

Denture Try-In and Insertion

At this point, the holder bar is placed on the implants. Patient will have the first try-in of new denture framework to see if it fits properly.



BAR PLACED ON MODEL

Once the dolder bar and the denture framework have been fitted together properly, the teeth are temporarily placed on the framework in wax. The whole denture is then tried in the patient's mouth. If everything works well, the teeth are secured in the denture framework permanently.

Patient will have to return to have the completed denture inserted. When the denture is inserted, the denture is clipped onto the bar attachments.



CLIP

At this point, temporary denture will be given a new relin so that it can be used as a backup denture in case lose or break your new overdenture.



PATIENT WEARING IMPLANT-SUPPORTED DENTURE

Benefits of implant-supported compared to conventional removable dental prosthesis?

Many patients report improvement over conventional denture, such as:

- Replacement teeth look, feel & function more like natural teeth.
- Improved taste & appetite.
- Improved cosmetic appearance.
- The ability to chew without pain or gum irritation.
- Implants eliminate the need for distasteful adhesives.
- Implants can improve the taste of food. With less plastic covering the roof of the mouth.
- Reduction or elimination of bone shrinkage or

“atrophy”.

- Implants increase the retention & stability of the teeth.
- Implant supported restorations help increase ones self-esteem.

PROBLEMS ENCOUNTERED BEFORE THE IMPLANT DENTISTRY

Problems with Dentures Include: The fact that patients are not used to having something in their mouth that is not food. The brain senses this appliance as "food" and sends messages to the salivary glands to produce more saliva and to secrete it at a higher rate. New dentures will also be the inevitable cause of sore spots as they rub and press.

Gagging is another problem encountered by some patients. At times, this may be due to a denture that is too loose fitting, too thick or not extended far enough posterior onto the soft palate. At times, gagging may also be attributed to psychological denial of the denture.

A few denture adjustments for the weeks following insertion of the dentures can take care of this issue.

Sometimes there could be a gingivitis under the full dentures, which is cause be accumulation of dental plaque.

Another problem with dentures is keeping them in place. There are three rules governing the existence of removable oral appliances: support, stability and retention.

BENEFITS

AFTER THE IMPLANT DENTISTRY

Benefits of overdentures includes: There are many benefits through having a removable denture replaced with an implant supported over denture; Maintains integrity of facial structures by preserving the remaining bone.

Restores lost lip support and minimizes wrinkles around the mouth.

Option of leaving the roof of the mouth uncovered. Increased stability restores natural chewing capacity and improves digestion.

Eliminates pain of ill-fitting dentures and need for adhesives.

Restores natural chewing capacity. Implants are successfully used to replace an entire upper or lower jaw which has no teeth at all. Implants are a very effective means of stabilizing full lower dentures, especially with patients who have no lower gums. Dental implants feel and look natural causing you to forget that you even have dentures.

Dental implants can provide stability to loose and ill-fitting dentures. The implants can connect or attach to dentures. Because implants provide denture stabilization, they can take away all of the problems with dentures and restore you to function, provide security and enjoyment of life.

Disadvantages

As with everything in life, there are always some disadvantages of implant treatment.

- They are costly.
- They require meticulous oral hygiene to prevent infection and loss.
- Placement of implants is a surgical procedure.
- Time consuming.
- Any surgical procedure has risks. Infection, reactions to the medications and anesthetics are a couple of complications that can happen.

The success rates of properly cared for implants is approximately 98%.

Dental implants are an effective, safe & predictable solution to the problems resulting from missing teeth.