

# Dental Implants

For Strong Natural-Looking Teeth





*This patient education presentation has been designed to take you through the various steps involved in implant therapy to help you understand the overall treatment plan. The illustrations are intended to be fairly representative of common clinical cases. However, the actual number of implants utilized and the method of restoration may differ by individual case.*



*Your dentist may direct you to review a particular restorative option which is applicable to your current situation. Regardless of the restorative option reviewed, it is recommended that you review the introductory section as well as the hygiene section as both are applicable to all types of treatment plans.*

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# An Introduction to Dental Implants



*An example of a Zimmer Dental dental implant.*

Dental implants can replace missing teeth and represent an alternative to dentures or bridgework. The advantages vary by patient and type of restoration but may include improved chewing ability, better speech, more secure fit of the restoration, greater comfort, and improved self-esteem.

The implant itself is made from titanium or a titanium alloy and is surgically implanted in the jawbone to function like the root of your missing tooth. The implant is allowed to heal in the jawbone for a period of time, which allows it to become firmly fixed. In a traditional two-stage procedure, the implant is then uncovered and a restoration by the dentist is fit on top of the implant.

# An Introduction to Dental Implants

A titanium or zirconia post, known as an abutment, threads into the implant and helps attach the restoration to the implant.

The restoration can be attached in several ways:

- Removable – using special snaps, bars, or clips.
- Fixed or screw retained – using cement for fixed restorations, or screws for screw-retained restorations - only your dentist can remove these types.



*Abutments used to attach the restoration to the implant.*

# An Introduction to Dental Implants

In the case of dentures, an implant-supported overdenture fits more securely than a conventional denture which rests on the gum tissue and offers no form of mechanical attachment. As an alternative to bridgework, dental implants eliminate the need to grind down healthy teeth when replacing one or more adjacent teeth.

Implants are usually placed under local anesthesia in the dentist's office. The procedure involved in placing the implants is generally no more painful than having a tooth extracted.



# An Introduction to Dental Implants

Only your dentist can tell whether you're a candidate for dental implants. Certain health conditions (e.g., uncontrolled diabetes) or risk factors (e.g., smoking) may preclude your ability to undergo implant therapy immediately, but not necessarily in the future.

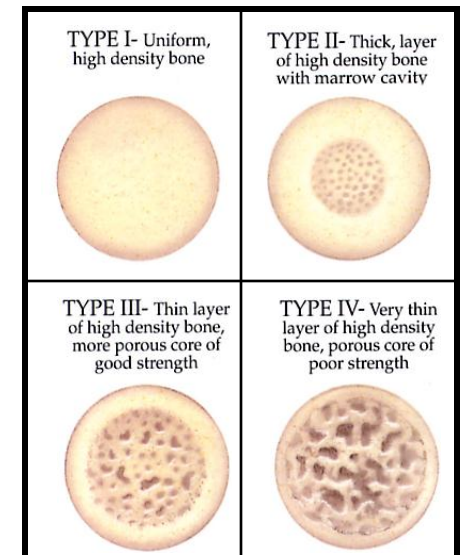


Appropriate hygiene must be established prior to implant therapy and must be maintained to ensure the long-term success of the implant.



# Bone Quality

Another important consideration is the quality of the bone in your jaw. As depicted in the illustrations, bone can vary in density with very spongy Type IV bone being less desirable, since there is less bone contact with the dental implant. The presence of Type IV bone does not necessarily eliminate your ability to have dental implants, but may have an effect on your treatment plan.



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# Bone Quantity

As part of the natural aging process and after loss of teeth, the jawbone can undergo resorption which generally decreases the bone height and width. Bone actually needs to be stressed somewhat in order to remain healthy. When missing teeth, the bone in those regions is no longer stressed and can resorb.

These factors will have a direct effect on your implant treatment plan. The number of implants, length, and the diameter of the implants needed to support the restorative option are dependent on the quality and quantity of available bone.



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# The Single Tooth Restoration



**Indication:** One of the front teeth known as a central incisor is missing. Under conventional therapy, the healthy adjacent teeth might be cut down to fashion a 3-unit bridge.

# The Single Tooth Restoration



**Surgical Placement:** An implant is placed in the site. It has been surgically placed at a slight angle to take advantage of available bone. A temporary tooth is placed in the site. The implant may need to heal for several months.

# The Single Tooth Restoration



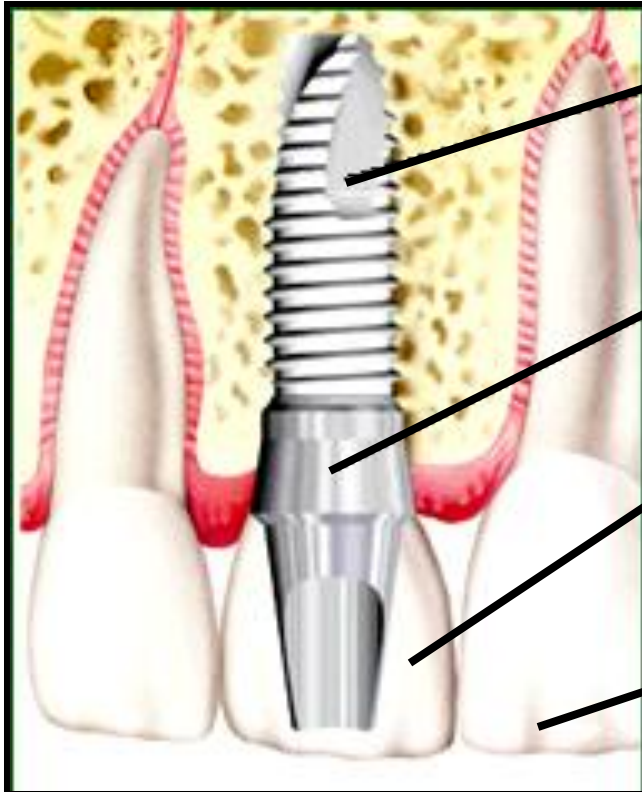
**Prosthetic Option:** Following healing, the top of the implant is uncovered. A titanium post, in this case a fixed abutment, has been attached to the implant body. The abutment is angled to allow for easy completion of a restoration that is in line with adjacent teeth.

# The Single Tooth Restoration



**Restoration:** The replacement tooth or crown is cemented onto the abutment. An esthetic and functional restoration has been completed.

# The Single Tooth Restoration



***Implant is firmly fixed in the surrounding bone***

***Abutment is attached to the implant body.***

***Crown is cemented onto the abutment***

***Adjacent teeth have not been affected***

# The Fixed Partial Denture



**Indication:** Three teeth, the bicuspids and first molar, are missing in the lower jaw. Conventional therapy might include a removable partial denture.



# The Fixed Partial Denture



**Surgical Placement:** Three implants are placed in the sites of the missing teeth. The implants will be allowed to heal. During that time, you will wear a temporary restoration provided by your doctor.

# The Fixed Partial Denture



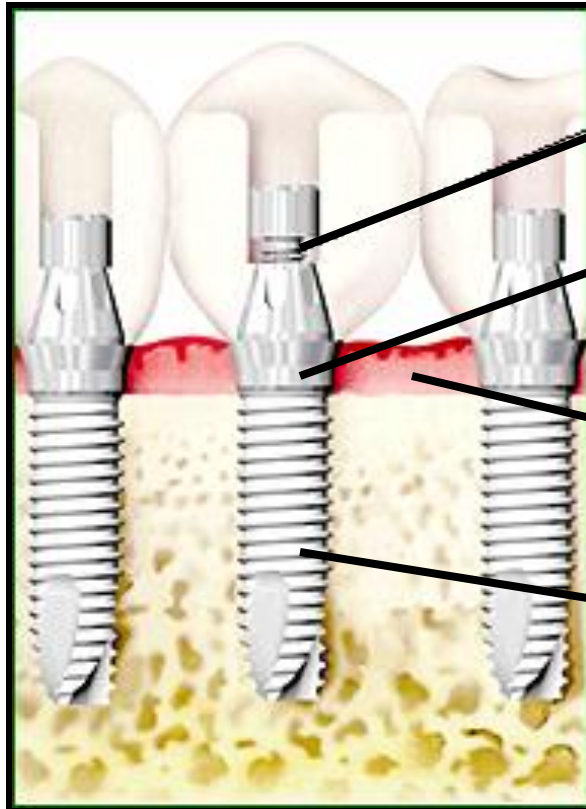
**Prosthetic Options:** Following healing, the top of the implants are uncovered. Abutments are attached to the implants.

# The Fixed Partial Denture



**Restoration:** The final restoration is in place. It attaches to the abutment with screws, allowing the restoration to be periodically removed by your dentist for cleaning. This restoration offers more stability than a partial denture or long span bridge.

# The Fixed Partial Denture



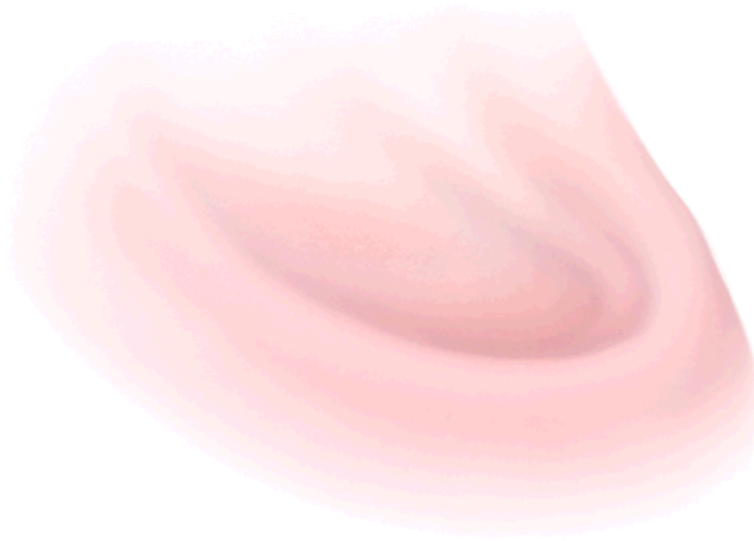
***Restoration is attached to the abutments by screws***

***Abutments attach into implant bodies***

***Restoration is designed to allow access for oral hygiene***

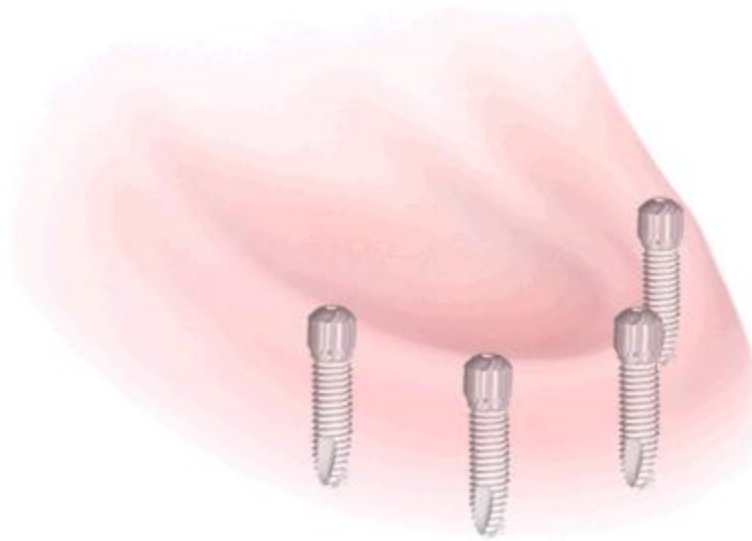
***Implants are firmly fixed in the surrounding bone***

# The Implant Supported Overdenture



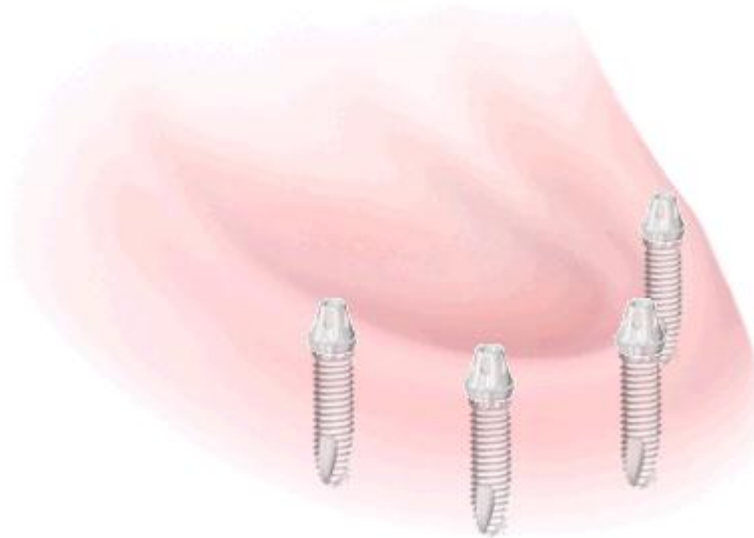
**Indication:** All the teeth are missing in the lower jaw. A full denture supported by the gum tissue might be utilized in conventional therapy.

# The Implant Supported Overdenture



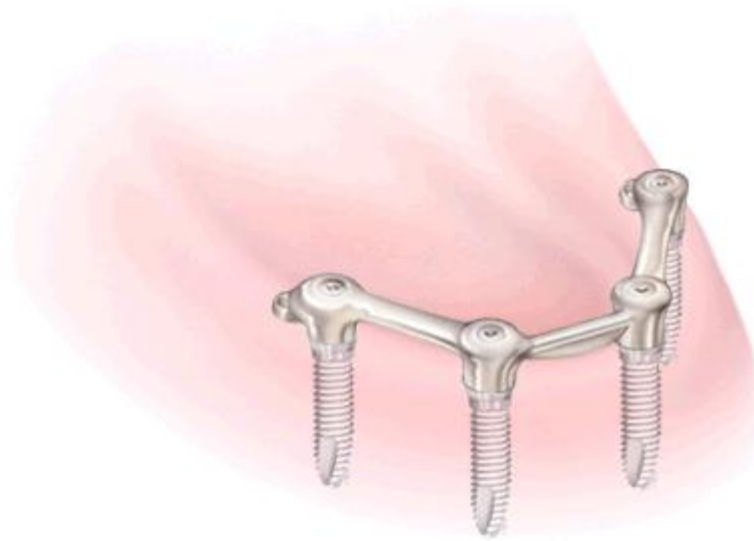
**Surgical Placement:** Four implants are placed in the lower jaw. These implants will be allowed to heal.

# The Implant Supported Overdenture



**Prosthetic Option:** Following healing, the tops of the implants are uncovered. Abutments are attached to the implants.

# The Implant Supported Overdenture



**Restoration – Part I:** A metal framework is then cast and screwed onto the abutments.



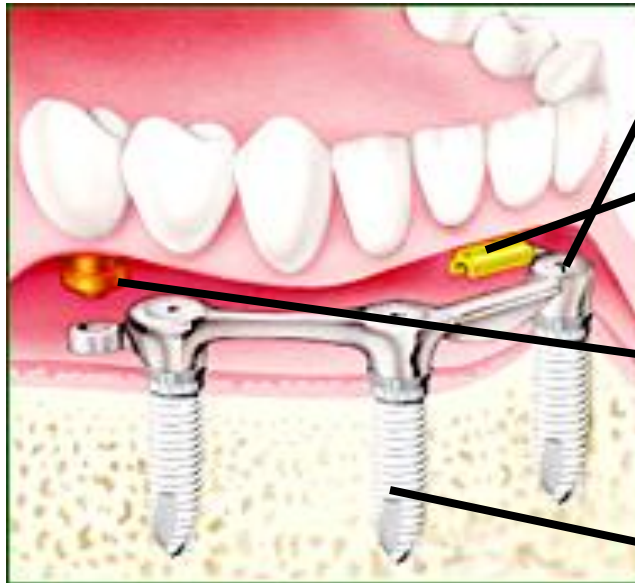
# The Implant Supported Overdenture



**Restoration – Part II:** The final restoration is in place. This is an implant supported overdenture which can easily be removed by you at home for cleaning. It attaches to the metal framework via clips or snaps, making it more stable than a conventional denture.

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# The Implant Supported Overdenture



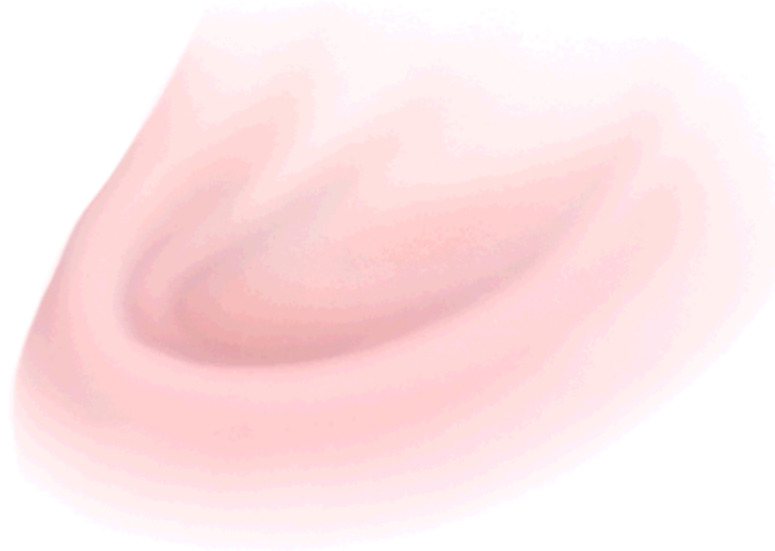
***The cast metal framework screws onto the abutments***

***The overdenture attaches in front with a clip***

***Plastic attachments snap the denture into place at each end***

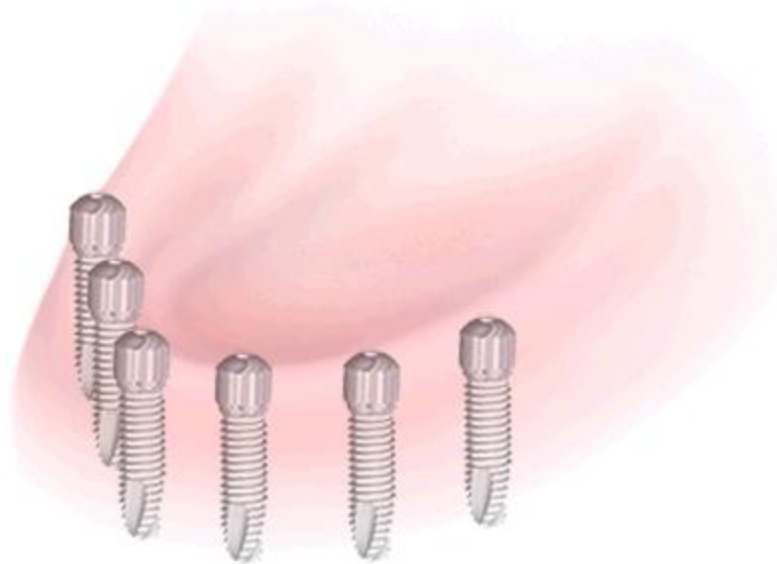
***Implants are firmly fixed in the surrounding bone***

# Fixed-Detachable Full Arch Restoration



**Indication:** All the teeth are missing in the lower jaw. A full denture supported by the gum tissue might be utilized in conventional therapy.

# Fixed-Detachable Full Arch Restoration



**Surgical Placement:** Six implants are placed in the jaw. These implants will be allowed to heal.

# Fixed-Detachable Full Arch Restoration



**Prosthetic Option:** Following healing, the tops of the implants are uncovered. Abutments are attached to the implants.

# Fixed-Detachable Full Arch Restoration



**Restoration:** The final restoration is seated onto the abutments. The restoration is attached to the abutments with screws. The restoration is stationary, but can be removed by your dentist as the need arises.

# Fixed-Detachable Full Arch Restoration



*Small screws attach the restoration to the abutments*

*Restoration consists of a full arch framework*

*Restoration may be positioned above the tissue for hygiene access*

*Implants are firmly fixed in the surrounding bone*

# Hygiene & Long-Term Success

Adequate oral hygiene must be established prior to implant therapy and must be maintained to ensure the long-term health of the implants.

Like natural teeth, implants can fail when hygiene is poor and plaque is allowed to accumulate.

A number of special brushes, flosses, and rinses are available to help you maintain your implant restoration.



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# Hygiene & Long-Term Success

You should discuss the appropriate tools and the proper use with your dentist, who will likely have you return to the office periodically to assess your home care and the health of your dental implants.

Regular visits to your dentist should include professional cleanings.



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