Are Dental Implants Right for You? The Facts

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Questions


Implant Supported Prosthetic Treatment Process:
1. What is a dental prosthesis?
2. What is a dental implant?
3. How can dental implants support a dental prosthesis?
4. What are the benefits of a dental implant supported dental prosthesis compared to a conventional prosthesis?
5. What are the steps for implant prosthetic treatment?
6. How long does implant prosthetic treatment take?
7. Can I extract a tooth and restore it immediately using a dental implant?
8. Who provides implant supported dental protheses?
9. Am I too old or too frail for implant supported dental protheses?
10. Are my jaw fit to receive dental implants?
1. What is a dental prosthesis?

Crown       Bridge       "etch-bridge"
             ("FPD")

Fixed       (Tooth-supported)
1. What is a dental prosthesis?

Tooth + Gum - support "RPD"

Removable Gum-supported "Denture"
1. What is a dental prosthesis?

Fixed

Crown

Bridge "etch-bridge" ("FPD") (Tooth-supported)

Removable

Tooth + Gum - support "RPD"

Gum-supported "Denture"

Replaces mostly hard tissue

Replaces hard + soft tissues
2. What are dental implants?

- Beginning in the 1950s researchers observed that the metal titanium formed a very strong bond to surrounding bone, a process termed "osseointegration."
- After years of careful research and study, dental implants (titanium cylinders placed into the jawbone to support replacement teeth) were refined with high success rates.
2. What are dental implants?

- 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.

- A replacement tooth, made by a dental technician, almost indistinguishable from its natural counterpart, is attached to this implant by the dentist.

- Dental implants can be regarded as substitutes for the roots of missing teeth.
3. How can dental implants support a dental prosthesis?

- Dental implants act as anchors for a replacement tooth or crown or a set of replacement teeth.
- The patient gets a solid replacement that looks like the natural tooth.
3. How can dental implants support a dental prosthesis?

Replacement of single teeth
3. How can dental implants support a dental prosthesis?

Implants for bridge-support
3. How can dental implants support a dental prosthesis?

For securing a removable denture
3. How can dental implants support a dental prosthesis?

- **Fixed:** (Tooth-supported)
- **Implant-supported**
- **Removable:** (Tooth+gum or gum-supported)
4. Benefits of implant-supported compared to conventional removable dental prostheses?

- Many patients report improvement over conventional dentures, such as:
  - Replacement teeth look, feel and function more like natural teeth
  - Improved taste and appetite
  - Improved cosmetic appearance
  - The ability to chew without pain or gum irritation
4. Benefits of implant-supported compared to conventional removable dental prostheses?

- Most patients can eat and chew again without pain or irritation. Foods that were unavailable are now back in the diet.
4. Benefits of implant-supported compared to conventional removable dental prostheses?

- Foods that were unavailable are back in the diet.
- Implants eliminate the need for distasteful adhesives. There is no longer a need to use "glue" when the dental prosthesis is supported by implants.
4. Benefits of implant-supported compared to conventional removable dental prostheses?

- Foods that were unavailable are back in the diet.
- There is no longer a need to use "glue".
- Implants can improve the taste of food. With less plastic covering the roof of the mouth, most patients can enjoy natural flavors and sensations again.
4. Benefits of implant-supported compared to conventional removable dental prostheses?

- One additional and very important benefit can be the reduction or elimination of bone shrinkage or “atrophy”, commonly related with loss of teeth.
- Bone atrophy not only affects jaw function, but can cause adverse facial cosmetic changes.
4. Benefits of implant-supported compared to conventional removable dental prostheses?

- Implants can improve the patient’s health with the ability to chew a wider variety of foods: *Eat whatever one like.*
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- Implant supported restorations help increase ones self-esteem. *Smile with confidence.*
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- Implants increase the retention and stability of the teeth. *Express oneself clearly or simply be understood.*
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- Implant supported restorations help increase ones self-esteem. *Smile with confidence.*
- Implants increase the retention and stability of the teeth. *Express oneself clearly or simply be understood.*
- Decrease the likelihood of continued bone loss and improve ones external facial structure.
4. Benefits of implant-supported compared to conventional fixed dental prostheses?

- Adjacent teeth can be preserved when, for instance, teeth are lost in an accident.
4. Benefits of implant-supported compared to conventional fixed dental prostheses?

- Adjacent teeth can be preserved.
- A bridge does not offer this possibility as the teeth next to the gap have to be abraded and crowned.
- Implants do not disrupt or negatively impact other healthy teeth in the mouth.
4. Benefits of implant-supported compared to conventional fixed dental prostheses?

- Adjacent teeth can be preserved.
- A bridge does not offer this possibility as the teeth next to the gap have to be abraded and crowned. Implants do not disrupt or negatively impact other healthy teeth.
- Dental implants help the patient to keep their remaining teeth, because they are able to “share the load” with the prosthetic teeth.
5. What are the steps for implant prosthetic treatment? (1/4)

- A titanium screw is inserted into the jaw bone where there are no teeth.

*Stage 1 surgery*
A titanium screw is inserted into the jaw bone where there are no teeth.

The screw is then protected with a cover, and the jaw is given a few months to heal.

Stage 1 surgery
5. What are the steps for implant prosthetic treatment? (3/4)

- A temporary crown, etch-bridge or removable prosthesis is used to minimize any cosmetic or chewing inconvenience.
5. What are the steps for implant prosthetic treatment? (4/4)

- A titanium screw is inserted into the jaw bone
- The screw is covered + a few months to heal.
- The final step is to uncover the implant and attach the permanent crown to the implant.

*Stage 2 Surgery*
Video
6. How long does implant prosthetic treatment take?

- The healing time for implants is similar to the time required for a broken bone to mend.
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- Depending on physical and medical situation, the titanium implants fuse to bone in the jaw in the space of 2-6 months.
- Treatment for the simple cases could take anywhere from 4-8 months, based on where the implants are placed and the type of restoration desired.
6. How long does implant prosthetic treatment take?

- The healing time for a broken bone to mend.
- Titanium implants fuse to bone: 2-6 mths
- Treatment for the simple cases: 4-8 mths

- If a tooth is extracted, the time to heal is usually 6 – 12 weeks before the implant is placed at the point where the tooth was removed.
- Recent advances by implant manufacturers are reducing the time for initial implant procedures.
7. Can I extract a tooth and restore it immediately using a dental implant?

- Some dentists place dental implants immediately after tooth extraction.
- Some dentists even place a temporary or permanent restoration on the dental implant immediately after surgical placement.
- There seems to be a higher risk of unsuccessful treatment outcome with these approaches.
Before treatment
8. Who provides implant-supported dental prostheses?

- The general dentist is usually the first resource for this service.
- The key is the implant dentist's training, experience and credentials.
- Competent dentists include general dentists, periodontists, prosthodontists and oral surgeons who perform the surgical and/or restorative procedures.
8. Who provides implant-supported dental prostheses?

- Since implant prosthodontics usually involve two phases of treatment: 1. surgical placement of the implant and 2. placement of the restoration some dentists feel they can offer better care by using the different expertise of other team members, e.g. performing the surgery or the restoration.

- Other practitioners feel that performing both the surgery and the restoration within one office is optimal for many patients.
8. Can any licensed dentist legally perform implant surgery or restoration?

- Yes. However, education and experience is critical. The dentist or dental specialist should be questioned about his or her training in implant therapy and in-office implant experience.
- A recommendation should be requested from one’s own dentist if he or she is not involved in implant therapy.
- Another possibility is to talk to treated patients of record and to referring dentists.
8. Is it safe to have dental implant surgery performed outside the hospital, in an office-based facility?

- Most cases are. Safety refers to the nature of the procedure and the medical and/or anesthetic needs of the patient.
9. Am I too old or too frail for implant-supported prostheses?

- Dental Implant patients are of all ages
- Dental implants may be the right choice for anyone missing one or more teeth due to injury, disease or decay.
- Dental implants are especially practical for patients who can no longer wear removable prostheses.
- Good health and adequate bone are the most critical factors in evaluating implant candidates.
9. Am I too old or too frail? (1/2)

Dental implants cannot be placed when:

- Vital anatomical structures can be damaged
- There is still active skeletal growth
- There is active infection & inflammation
- There are general surgical contraindications
- Systemic diseases are likely to compromise the implant surgery
Dental implants are more unpredictable if:

- insufficient bone
- insufficient space
- Previous radiation therapy of head & neck
- Skeletal discrepancies
- Poor quality bone
- Current or past history of drug/alcohol abuse
- Extensive tobacco use
- Poor oral hygiene
- Severe tooth grinding or clenching
10. Do I have enough bone?

- It is important for a patient to have enough bone to support the implant.
- If there is not enough bone, there are many safe and effective ways to correct bone deficiency.
- A thorough clinical and radiological examination will usually determine if it is advisable to add additional bone material.
11. What Do I Need to Do to Prepare for Dental Implants?

- As is the case for any surgery, it is best if the patient is in good health.
- Smoking and excessive drinking can have a negative affect on the process, and may cause dental implants to fail.
- Many dentists will require that the patient should quit smoking before beginning the dental implant treatment process.
12. Are there alternatives to dental implants?

- Traditional dentistry can provide replacements for missing teeth using bridges, removable partials and dentures; however, each of these has its problems.

- The dentist should describe all reasonable alternatives before proceeding to make a treatment decision together as to what is best for the patient.
Single tooth lost

Etch-bridge

Fixed bridge

Removable dental prosthesis

Implant-supported crown
Implant-supported FDP

Removable dental prosthesis

Partially Edentate Upper Jaw Front

Fixed bridge
Implant-supported FDP

Partially Edentate Lower Jaw Front

Fixed bridge

Removable dental prosthesis
Implant-supported FDP

Partially Edentate Upper Jaw

Fixed bridges

Removable dental prosthesis
Implant-supported FDP

Partially Edentate Lower Jaw

Fixed bridges

Removable denture
Implant-supported FDP
Removable denture
Fixed bridges
Implant-supported RDP
Edentate upper jaw
Implant-supported FDP

Implant-supported RDP

Removable denture

Edentate lower jaw
13. How Much Do Dental implants Cost?

- The cost of dental implants depends on the type of implant received and the health of the patient’s mouth, jaw and gums.
- The cost of implanting one tooth can be anywhere between $1,600 to $5,000, and a full mouth reconstruction can be as much as $50,000.
- Dental implants rarely fail, so the patient doesn’t need to buy them twice.
- Check with the dental insurance to see what portion of the dental implant cost they may cover.
13. Are dental implants expensive?

- There is a greater initial investment for dental implants compared to dentures and partials.
- They should last for years, particularly if there are no anatomical hindrances.
- Independent surveys of implant patients show that they felt the investment was worth every penny and would do it again.
14. What happens during the treatment planning phase?

1. Prosthodontic assessment:
2. Surgical consultation:
3. Radiological assessment
14. What happens during the treatment planning phase?
14. What happens during the treatment planning phase?

Computer x-rays
15. What material are Dental implants made of?

- Titanium, titanium alloys or surfaces that are coated with titanium are used.
- Pure titanium intended for medical applications is used, which does not cause any known intolerance reactions or allergies.
- Titanium is a very resistant material in the body and is biologically inert.
- A decreasing number of dental implants are made from calcium-phosphate.
16. Is one dental implant system better than the others?

- There are many Health Canada & FDA approved implant systems available to Canadian dentists.
- Many shapes, sizes and brands of dental implants are available.
- More than 80 different dental implant manufacturers market about 250 dental implant systems.
Under and after the surgery
17. What happens during the (first stage) surgery?

1. A sedative for relaxation if desired
2. Patient will be awake and able to communicate with the surgeon (although drowsy if sedative is taken).
17. What happens during the (first stage) surgery?

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4. Patient is covered with sterile drapes.
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6. The tissues are pulled back so that the surgeon can gain access to the bone
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6. The tissues are pulled back so that the surgeon can gain access to the bone
7. Gently drilling of the site(s) for the dental implant(s).
8. Placement of the implants in the prepared sites
9. Suturing → healing
18. Do I get my teeth immediately after surgery?

- The dentist will ensure that in the interim healing period, the patient’s look and feel is made natural.
- Thus, the patient will normally never need to be without teeth.
- Check in case of referral to surgeon specifically for implant surgery whether interim teeth will be delivered immediately following surgery.
19. Does it hurt afterwards?

- Usually, discomfort is not a problem. In fact, many have said that having a tooth pulled was more painful.
- For the placement of an implant(s), the dentist will use one of many anesthetic regimens so there won't be any discomfort.
- After the surgery, when leaving the office, appropriate medications will normally be provided.
20. Can I go to work after surgery?

- For single implants, the recovery time is often less than it would take to recover from a regular tooth extraction.
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For placement of multiple implants under an existing denture, recovery may vary.

- In very rare instances, it can take up to a week before the patient is comfortable enough to resume normal activities.
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- It is advised to often cleanse the site of surgery by vigorous rinsing and swishing of warm salt water to dislodge any debris clinging to the sutures.
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- It is advised to often cleanse the site of surgery by vigorous rinsing and swishing of warm salt water to dislodge any debris clinging to the sutures.
- Liquid food for the first 2 days following surgery and a soft diet for 10 days is advisable while the gums are healing. Eating hard foods during this period, e.g. steak and nuts, is discouraged.
21. Are there risk of complications during surgery?

Including, but not limited to, bleeding and bruising
Post-surgical pain
Delayed healing
Bone fracture
Osteomyelitis
Chronic pain
Abscess
Sequestrum
Gingivitis

Temporary speech problems
Post-surgical infection
Loss of bony ridge
Damage to opposing dentition
Local or systemic infection
Fistula to nose or sinus
Haematoma
Transient or permanent damage to the nerves in the jaw
22. What’s the difference between “one-” and “two-stage” surgery?

Two surgical procedures techniques are used:

**Single stage technique**
- The dental implant is inserted and remain exposed in the mouth

**Two stage technique**

**One-stage surgery:**
- The dental implant is inserted and covered over to not be exposed in the mouth

**Two-stage surgery:**
- The dental implant is uncovered and exposed in the mouth
Restorative phase
23. What happens during the restorative treatment phase?

Fixed Partial Denture Supported by Osseointegrated Implants

Clinical Appointments

1. (Initial impression) - Tapered impression copings
2. Final impression - Tighten abutment screw, Periapical radiograph, Stock or custom impression tray, Square impression copings & guide pins, Centric relation registration
3. Framework try-in (Section)
4. (Framework try-in #2)
5. Delivery - Provisional coverage of screws, Oral hygiene instruction, Periapical radiograph, Adjust occlusion and contacts
6. Adjustment - Confirm screw tight, Check screw access closure

Laboratory Procedures

1. (Pour impression) - Custom impression tray, Provisional restorations
2. Box & pour impression - Mount casts, Framework fabrication
3. (Solder)
4. Prosthesis completed - Porcelain application
23. What happens during the restorative treatment phase?

**Clinical Appointments**
1. (Initial impression)
   - Tapered impression copings
   - Stock impression tray and alginate
2. Final impression
   - Tighten abutment screw
   - Periapical radiograph
   - Impression tray & square impression copings

**Laboratory Procedures**
1. (Pour impression)
   - Custom impression tray
2. Box and pour impression
   - Verification index
   - Record base
23. What happens during the restorative treatment phase?

**Clinical Appointments**
1. Initial impression
   - Tapered impression copings
   - Stock impression tray and alginate
2. Final impression
   - Tighten abutment screw
   - Periapical radiograph
   - Impression tray & square impression copings
3. Records
   - Verification index
   - Facebow registration, physiologic rest position, occlusal vertical dimension, centric occlusion
   - Select tooth shade, mold

**Laboratory Procedures**
1. Pour impression
   - Custom impression tray
2. Box and pour impression
   - Verification index
   - Record base
3. Mount casts on articulator
   - Wax trial denture
23. What happens during the restorative treatment phase?

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   - Tapered impression copings
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   - Tighten abutment screw
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3. Records
   - Verification index
   - Facebow registration, physiologic rest position, occlusal vertical dimension, centric occlusion
   - Select tooth shade, mold

4. Wax try-in
   - Physiologic rest position, occlusal vertical dimension, centric occlusion, protrusive record, esthetics

5. Framework try-in
   - (section)

**Laboratory Procedures**

1. (Pour impression)
   - Custom impression tray

2. Box and pour impression
   - Verification index
   - Record base

3. Mount casts on articulator
   - Wax trial denture

4. Index for tooth position
   - Metal framework fabrication

5. (Solder)
23. What happens during the restorative treatment phase?

### Clinical Appointments

1. (Initial impression)
   - Tapered impression copings
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4. Wax try-in
   - Physiologic rest position, occlusal vertical dimension, centric occlusion, protrusive record, esthetics

5. Framework try-in
   - (section)

6. (Framework try-in #2)

7. (Wax try-in #2)
   - On metal framework

### Laboratory Procedures

1. (Pour impression)
   - Custom impression tray

2. Box and pour impression
   - Verification index
   - Record base

3. Mount casts on articulator
   - Wax trial denture

4. Index for tooth position
   - Metal framework fabrication

5. (Solder)

6. (Denture teeth waxed to framework)

7. Process
23. What happens during the restorative treatment phase?

**Clinical Appointments**

1. *(Initial impression)*
   - Tapered impression copings
   - Stock impression tray and alginate

2. Final impression
   - Tighten abutment screw
   - Periapical radiograph
   - Impression tray & square impression copings

3. Records
   - Verification index
   - Facebow registration, physiologic rest position, occlusal vertical dimension, centric occlusion
   - Select tooth shade, mold

4. Wax try-in
   - Physiologic rest position, occlusal vertical dimension, centric occlusion, protrusive record, esthetics

5. Framework try-in
   - (section)

6. *(Framework try-in #2)*

7. *(Wax try-in #2)*
   - On metal framework

8. Delivery
   - Remount and adjust occlusion
   - Provisional coverage of screws
   - Oral hygiene instruction
   - Periapical radiograph

9. Adjustment
   - Screw-access closure

**Laboratory Procedures**

1. *(Pour impression)*
   - Custom impression tray

2. Box and pour impression
   - Verification index
   - Record base

3. Mount casts on articulator
   - Wax trial denture

4. Index for tooth position
   - Metal framework fabrication

5. *(Solder)*

6. *(Denture teeth waxed to framework)*

7. Process
24. How long does it take before I get my teeth?

- This depends on the type of dental restoration required - usually it takes around 4-12 weeks.
- Treatment time can vary greatly. Each situation needs a separate evaluation.
After treatment
25. What will it feel like when it is done?

Once the entire procedure is complete and the final restorations placed, an implant supported fixed dental prosthesis will actually feel or function like natural teeth.
For the last ten years, success rates at many treatment centers are consistently over 90% with proper personal and professional care.

Few forms of medical, orthopedic or dental treatment have such high success rates.
26. Risks and Discomforts following treatment

Failure of the implant or attached restorative work

This might require removal of an implant(s), remaking part of the dental restoration, or constructing an alternative prosthetic appliance to replace the missing teeth.
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If an implant has to be removed (“explanted”), a local anaesthetic is administered.

The implant is subsequently removed with the aid of a drill which fits over the implant.
26. Risks and Discomforts following treatment

Failure of the implant or attached restorative work

This might require removal of an implant(s), remaking part of the dental restoration, or constructing an alternative prosthetic appliance to replace the missing teeth.

If an implant has to be removed (“explanted”), a local anaesthetic is administered.

The implant is subsequently removed with the aid of a drill which fits over the implant.

Depending on circumstances, another implant may be placed after 3 months healing.
26. Risks and Discomforts following treatment

Opacity (due to misalignment)

Exposed implant

Gum inflammation

Adjacent tooth damage

Perfect result
27. How long do dental implants last?

- As a general rule it can be said that the better care the patient takes of the mouth and teeth, the longer the implants will last.
- Given correct oral hygiene and regular check-ups by a dentist (known as recalls), dental implants can last for decades.
- If properly followed up, one should expect implants to last for 10 years, but there are patients who have had solid dental implants for 35 years.
28. How do I take care of my implants?

- Normal routine home care and professional cleaning visits are advised.
- Most dentists will offer special training and professional dental cleaning.
- Taking care of ones teeth nevertheless has a major influence on the long-term success of the dental implants.
28. How do I take care of my implants?

- Patients should have a routine cleaning and re-care treatment and evaluation regularly – varying between 4 to 12 months depending on treatment.

- An individualized program is usually designed for the patient to optimally care for their new teeth.
Bottom line....

- Dental implants are an effective, safe and predictable solution to the problems resulting from missing teeth.
Thank you for your kind attention