

Restore (and rediscover!)
your smile



IMPLANT KIT

Dental implant restoration

FALL 2021



Oral health and wellness specialists

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1. Introduction

Your Prisma dentist has recommended one of four types of detachable or fixed implant restorations to replace one or more missing teeth, restore your smile and maintain the dental integrity of your mouth.

The purpose of this general information kit is to present the different types of implants available to patients, your dentist having presented you with the preferred solution (s) during your visit. This will help you consider each option in more depth and thus make the best decision for your overall well-being.

If you have any questions at the end of your reading, we are always here to answer them with the attentiveness, professionalism and advice you seek, to help you preserve your dental health and your smile's appearance for many years to come.

Happy reading!

2. The ABCs of dental pivots and implants

With new, modern dental solutions, it's easier than ever to replace missing or damaged teeth to prevent loss of dental health or even just to get your smile back. (For an overview of health issues related to tooth loss, see Section 7).

The purpose of the dental pivot or implant restorations presented in this kit is to ensure the stable function and a natural look of your mouth and teeth. When it comes to replacing missing or damaged teeth, you have two options:

1) Install a bridge using your adjacent natural teeth as support. Adjacent teeth should be ground (even if their structure is healthy). This option is less expensive, but it does not prevent the loss of bone mass in the jaw, nor the potential for the gums to shrink, impacting oral health and the general appearance of the face.

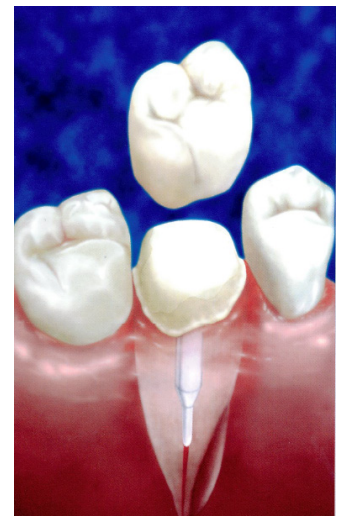
or

2) Insert a dental implant into the jawbone, which acts like the roots of natural teeth. The implant option, although more expensive, has many advantages, both in terms of durability and keeping the teeth adjacent to the implant healthy.

What is the difference between a pivot and an implant?

The pivot is often confused with the implant, but the two are completely different. The pivot is used if the tooth's root is still in the bone and is in good condition, i.e. it can be used to attach an artificial tooth to it in the form of a crown or a bridge.

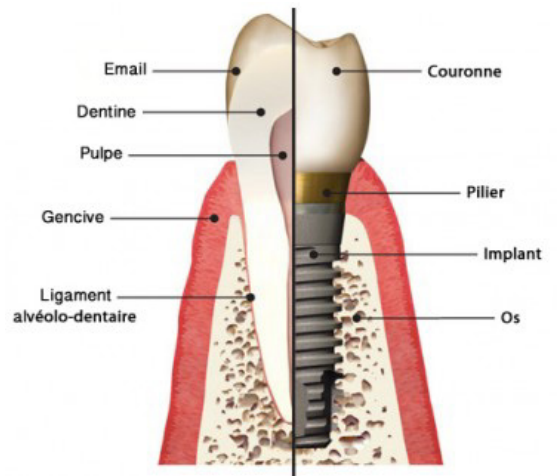
Dentists use the pivot **to strengthen and restore an existing tooth**, while the implant is used to replace the missing tooth root. Implants are made of titanium, while a pivot is made of a reinforced material like fibreglass, carbon fibre, or a metal alloy. A titanium pivot can also be manufactured to prevent any possibility of rejection, since titanium is a biocompatible material that the body readily accepts.



How does a dental implant work?

Today's dental implants are made from a titanium screw that your dentist inserts into your jawbone. It functions like the root of a natural tooth, where the replacement tooth will be attached to the implant. Once in place, the implant will fuse with the jawbone. Since titanium is a biocompatible material, the body accepts it more easily, which almost entirely eliminates the risk of rejection associated with old prostheses.

Implants are considered the most effective replacement, since they replace the natural morphology of teeth and their roots.



Benefits of dental implants

Because their colour, shape and contours are tailored to your teeth, implant restorations mimic the look and feel of real teeth. Since they are attached to your jawbone, they are more stable and comfortable than other types of restorations. By adopting good dental hygiene and the care recommended by your Prisma dentist, your new restoration can last for many years or even a lifetime.

3. Overview of the 4 types of implant restorations

a. Pillars and crowns

When a tooth undergoes a root canal treatment, over time there is a change in its shade as the tooth becomes grayer and/or darker. If the root of the tooth is still in the bone and in good condition (that is to say it does not move), a pivot can be installed, upon which will be mounted an artificial tooth in the form of a crown.

The dentist takes an impression of the morphology of the tooth to be replaced, which is then sent to a dental laboratory. This laboratory designs the pivot and the crown, ensuring a perfectly exact complementarity with the tooth.



A trial fitting is carried out with the patient, so some modifications can be made at this stage and before the final fitting. The pivot crown is seldom a problem and, since it is securely fixed, ensures a long life for the restoration.

b. Fixed implant bridge

It is important to replace a tooth that is extracted. The fixed implant bridge is one of the options available to patients who have had one or more teeth extracted or lost. This type of bridge helps prevent the displacement and possible loosening of the other teeth; it promotes chewing and therefore digestion; it preserves the smile's appearance; and it prevents temporomandibular joint problems.

If a single tooth needs to be replaced, the patient has two choices:

- **A conventionnel bridge** formed of crowns fused to each other and cemented to the pillars (pivots and crowns) of the bridge to hold it in place. Root canal treatment should be considered for any adjacent pillar tooth that is already weakened.
- **A butterfly bridge**, which is supported by metal fins/wings attached to adjacent teeth. It is less solid than a conventional bridge, but it helps to better preserve the teeth that serve as its pillars.



c. Full-fixed prostheses

Sometimes the patient's oral condition is not conducive to having dental implants installed, for example because of the proximity of the sinuses or the mandibular nerves or because the quantity of bone is insufficient. In this case it is better to consider the All-on-4 or "Teeth in a day" approach with screw-retained prostheses.

This approach helps completely edentulous (toothless) patients to regain a natural, functional and comfortable smile by using only four to six dental implants to support a full-fixed prostheses.



The patient must first undergo surgery to install the implants, followed by a waiting phase of three to six months (depending on the quality of the jawbone) to allow the surface of the implant to fuse with the bone and to optimize bone healing. During this period, you will have to wear a conventional prosthesis made of soft material, that your dentist will have adjusted on top of the implants in order not to injure your gums and so you can continue chewing more normally.

Note that this technique allows for the installation and immediate activation of a full fixed temporary or transitional dentures on newly-installed dental implants, in a single visit. This type of prosthesis is very stable and similar to natural teeth, is completely attached and only your dentist is able to remove it.

d. Fixed-detachable prostheses

Lastly, to replace one or more teeth, your dentist may recommend a detachable prosthesis that is mounted on an implant. There are various types of these so-called implant-supported prostheses, with either two or four implants. As the patient can remove the prostheses, they are responsible both for their maintenance as well as for the dental hygiene routine, which must be disciplined in order in particular to prevent gum inflammation around the implants.



Prostheses with two implants

These prostheses are attached to two implants, installed at the front of the jaw, like a snap button. Thanks to implants that serve as anchors, these prostheses provide superior stability and retention compared to conventional detachable prostheses, although slightly inferior to other fixed or detachable prostheses on implants. In some patients, the potential of slight movements due to the ball shape of the fasteners may be a disadvantage.

Prostheses with four implants (horseshoe shaped)

These prostheses have four implants and a bar attachment. They enjoy greater stability and retention than dual implant prostheses. Here, too, excellent dental hygiene is essential to avoid inflammation or the build-up of bacterial plaque.

4. Treatment overview



a. Implant installation

The first step in treatment is to assess your teeth and your health, including taking X-rays. You need to comply with the following steps and appointments, which will overlap with the steps to fit the prosthesis:

- **Extraction of the tooth (if the tooth is not already extracted or missing), stitches**
- **Control X-ray**

Phase 1 – Implant installation

- Generally 3 to 4 months for bone fusion, to be confirmed by a follow-up x-ray

Phase 2 – Temporary pillar installation to keep the implant head exposed

- **Impression taking** of the implant head by control X-ray
- 4 weeks: Pillar and crown tested by control X-ray. Pillar and crown insertion.
- After about 4 weeks: Post-op check-up

b. Full prosthesis installation

This treatment may overlap with the implant installation described above. Six months should be allowed from tooth extraction to installment of the final prosthesis, according to the following treatment plan:

Day 1 – you must be accompanied

- Installation of implants and 1st prosthesis
- Panorex (panoramic X-ray)
- Occlusion adjustment

You will need to adhere to a soft diet and use an antimicrobial mouthwash.

Day 14

- Prosthesis removed
- Stitches removed
- Implants verified
- Prosthesis reinstalled
- Occlusion adjusted

For a period of 3 months, the patient should continue to adhere to a special diet and use mouthwash.

Day 45

This control step is only necessary when there is a higher risk, for example if the client smokes or has diabetes.

- Panoramic X-ray
- Prosthesis removed
- Occlusion verified
- Implants verified
- Prosthesis reinstalled

Day 90

- Panoramic X-ray
- Prosthesis removed
- Screws tightened
- Prosthesis adjusted
- Occlusion adjusted

The gradual return to a normal diet begins at this stage.

Day 180

- Panoramic X-ray
- Prosthesis removed
- Beginning of impressions for the final prosthesis

Annual check-up

The first annual follow-up visit is included in the initial treatment plan. Visits can become biennial (twice a year) if tartar accumulates or if the patient is predisposed to producing a lot of tartar in general. Note that after the 1st year, the screws must be replaced every 3rd tightening.

- Prosthesis removal and cleaning
- Implants verified
- Occlusion adjusted
- Soft tissue examination
- Annual panoramic x-ray



5. Advantages and issues

Detachable or fixed implant restorations are a surgical procedure recommended by a dentist following a clinical evaluation to ensure that your general and dental health allows this type of treatment. Replacing missing teeth with implants is a treatment with a high success rate.

Issues

Any type of surgical procedure comes with general risks, as some patients may be predisposed to problems related to their state of health, such as diabetes. Like any treatment, dental implant restoration also involves certain risks and complications that may arise during or after restructuring, including: temporary swelling of the cheek or bruising (7 to 10 days), postoperative pain or light bleeding. Implant rejection occurs in approximately 5% of cases, requiring the removal and replacement of the implant.

Installing implants can cause infection, which can be treated with antibiotics or other procedures; a potential lesion of the nervous tissue, that is to say a loss of sensation generally transient at the level of the lips or the chin; or bleeding during or after surgery. Depending on your condition, the proximity of nerves near the roots, or the presence of abnormally thin bones, this type of restoration may not be suitable for you. Your Prisma dentist will perform an examination, including panoramic x-rays, to detect any contraindications and advise you about the best option. An Informed Consent form should be signed before starting treatment.

6. Before and after photos



7. Living with missing teeth: Issues and consequences

Did you know that, according to statistics, more than 175 million* people in North America live with a missing tooth, whether it is due to an accident, illness or poor dental hygiene?

*Source: American College of Prosthodontists (ACP)

Breaking or losing a tooth can be a traumatic experience in itself. Missing or damaged teeth subsequently pose a double problem, both aesthetic and functional.

Functional problems

Functionally, living with a tooth that hurts or is completely missing can be a source of discomfort. Mealtimes or the simple desire to bite into a fruit, can turn into a complicated or painful experience.

Impacts on the jaw and gums

Even a single missing tooth can lead to serious consequences. The micro-movements that your teeth make when working together, such as chewing, stimulate your jaw and gums, which contributes to their health. When this natural process is inhibited, your jawbone begins to lose bone mass and your gums may shrink. The consequences can worsen over time if other teeth fail without being replaced.

The teeth adjacent to the missing tooth will also respond to fill the empty space that has been created. When the lost tooth is located in the lower jaw, the corresponding tooth (s) of the upper jaw, without their natural support, will also tend to “descend” to fill the space, at the risk of loosening over time and having to be extracted in turn.

Impacts on the appearance of the face

From an aesthetic point of view, depending on the position of the tooth, your smile may be affected. Knowing that a natural smile is a symbol of health and beauty that conveys a positive (even professional) image, its loss often causes a negative emotional impact, especially on self-esteem.

When the jaw's bone mass decreases due to the loss of a tooth, it is no longer able to normally support the surrounding facial structures. Gradually, the loss of bone mass can also lead to cosmetic changes, such as the appearance or increase of wrinkles and/or the loss of tone around the cheeks and lips, which appear sunken.

What can be done?

Detachable or fixed restorations not only restore the desire to eat or smile, they can prevent the onset of physical changes and maintain the health of your surrounding teeth.

8. Prostheses maintenance



Like the teeth they replace, dental implants need to be well maintained. This implies that patients must adhere to excellent oral hygiene and follow a routine of regular visits to their dentist.

During biennial visits, your Prisma dentist can check your implants' condition and descale them along with your natural teeth. This will prevent any build-up of bacterial plaque which can lead to complications, or even treatment failure. For example, the buildup of bacterial plaque that sneaks under the gum tissue can cause craters around implants. Like natural teeth, implants can be affected by periodontal disease even after they have been integrated into the jawbone. This disease, which manifests as a loss of bone supporting the teeth and implants, can lead to the loss of implants.

How to avoid periodontitis

Periodontal disease is usually preceded by gingivitis which, if left untreated, will develop into periodontitis. Gingivitis is often asymptomatic and painless, until it manifests as bleeding gums when brushing and bad breath. Over time, the gums become red and swollen.

In some people, untreated gingivitis can develop into periodontitis, where the bone that supports the teeth begins to deteriorate. Without treatment, the teeth start to loosen, to the point of having to be extracted.

In the absence of medical or genetic factors (diabetes, leukemia, medication, etc.), it is possible to prevent the onset of periodontal disease by adopting adequate dental hygiene and by giving up smoking. Periodontitis destabilizes the jaw's bone structure, and therefore both natural teeth and implants, so daily dental hygiene and regular cleaning at the dentist are essential to ensure maximum life for any implant-based restoration.

As implant-based prostheses undergo the same wear and tear and aging as conventional prostheses, their lifespan will depend on your maintenance routine.

9. Other recommended dental treatments

It is best to undergo the dental treatments required for the teeth around the prosthesis in order to achieve maximum appearance and fit. Your Prisma dentist may recommend the following treatments, to be performed before, during or after restoration work on implants.

- **Teeth whitening:** To be done before, to avoid two-tone effects.
- **Repairs:** All repairs to adjacent teeth must be completed before measuring and taking the impression of the prostheses, in order not to modify the space available, among other things.
- **Gingival grafts** and other gum treatments: to be completed before the start of treatments, since wearing a prosthesis requires healthy gums.
- **Remodeling:** To ensure harmony with the perfect-looking prosthetic teeth, porcelain veneers can be installed to restore surrounding teeth that are stained, discoloured, deformed or slightly deteriorated from wear and tear. They are used to correct the contour, colour and shape of the teeth to improve your smile's appearance.

10. Your personal checklist



Would you like to know more about implant restorations and the various advanced treatments that are now at your fingertips? Here are some online resources to keep you informed. Your Prisma dentist will also be happy to answer any questions.

Prisma:

www.prismadentistes.ca



Prostheses:

www.zimmerbiomet.ca/

www.nobelbiocare.com/

www.pantheradental.com/



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