While this brochure is designed to address some of the frequently asked questions about dental implants, your doctor remains your best source for information regarding dental implants and whether this procedure is right for you. Your doctor will advise you on specific procedural expectations, warnings, risks, contraindications and potential adverse effects associated with the dental implant procedure.

Additional information regarding Zimmer products, including instructions for use, may be found at www.zimmerdental.com. Your doctor will provide you with individual post-operative care instructions and will answer any additional questions or concerns you may have regarding the procedure.

Zimmer Holdings, Inc. (NYSE and SWX: ZMH), parent company of Zimmer Dental Inc., is a worldwide leader in the design, development, manufacturing and marketing of reconstructive orthopaedic implants, including joint and dental, spinal implants and trauma products, and related orthopaedic surgical products. Founded in 1927, Zimmer is headquartered in Warsaw, Indiana, with direct operations in more than 25 countries and products currently sold and represented in more than 100 countries. Nearly 8,000 employees worldwide proudly share a vision of improving the quality of patients’ lives every day.
What are dental implants?
Dental implants are a safe, esthetic alternative to traditional crowns, bridgework, and dentures. Because implant restorations look and feel more like natural teeth, they offer new levels of comfort, security and confidence over traditional treatments. For more than two decades, Zimmer® Dental Implants have been helping to provide quality of life to patients with restorative needs.

How do they work?
A dental implant is a small “anchor” made of titanium that is inserted into the jawbone to take the place of your missing tooth root. After osseointegration (when the surrounding bone has healed to the implant), a replacement tooth is secured to the top of the implant. This new tooth looks, feels and performs similar to your natural teeth.

What are the benefits?
Choosing dental implants as a treatment option can offer you a number of significant advantages.

- **Maintain anatomy.** If you have missing teeth, the bone begins to shrink over time. Unhealthy bone loss can make your jawline recede and change your facial structure. Dental implants can help prevent deterioration of the jawbone so your face retains its natural shape.

Alternative options to dental implants do exist. Although these traditional treatment options may be performed at a lower cost and may not require surgery or extended wait time, implant procedures offer some advantages over traditional treatment options.

Conventional dentures rest upon the gum tissue, offering no form of mechanical attachment. As a result, this treatment option may:

- Move while you are eating or speaking
- Look like false teeth
- Be physically uncomfortable
- Cause damage to surrounding teeth or accelerate bone loss
- Contribute to additional resorption of bone, resulting in undesired changes to your facial appearance
- Require ongoing dentist visits for adjustments and/or replacement

Conventional bridgework requires grinding down adjacent, healthy teeth in order to support the bridge. As a result, this treatment option may have the following results:

- Teeth grinding can compromise otherwise healthy surrounding teeth
- Cement used to secure the bridge may break down, enabling bacteria to hide and damage otherwise healthy surrounding teeth
- Gum tissue and bone may deteriorate, causing esthetic changes in your appearance
Introduction

• **Keep your healthy teeth.** A better long-term alternative to bridgework, dental implants eliminate the need to grind down healthy teeth when replacing one or more adjacent teeth. Your own natural healthy teeth are not compromised.

• **Security.** Securely anchored dental implants do not slip or move. This eliminates some of the key problems of dentures, including poor fit, gum irritation and pain from exposed nerves. The result is superior comfort, reliability, and freedom from embarrassment.

**What is involved in the implant procedure?**
The dental implant process involves several steps that take place over a time period that averages from 4 to 9 months. The typical process will include:

• **Pre-treatment consultation:** After a careful evaluation of your dental and medical health history, your practitioner will determine if you are a good candidate for dental implants. If you are, you will then have thorough consultations with surgical and prosthetic specialists before your treatment begins.

• **Initial implant placement:** Your practitioner places the dental implant into your jaw while you are under either local or general anesthesia. Over the next several months, bone will heal to the surface of the implant, anchoring it into position. Depending on your particular case, an additional minor procedure creates an opening through which your artificial tooth will emerge.

• **Implant prosthetic attachment:** During this phase, your practitioner painlessly attaches a prosthetic “post” to the implant. An impression will be taken, and soon after, an artificial replacement tooth will be created for a natural restoration.

• **Proper maintenance:** Your dental practitioner will guide you on the proper care and maintenance of your new implants before, during and after the procedure. By following a regular routine of careful oral hygiene and regular checkups, your implants can look, function and feel great for many years to come.

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A Natural, Beautiful Solution for Confident Living.

Dental implants can improve your appearance, self-confidence, and give you new peace of mind. They look and feel similar to natural teeth, and the securely attached implant can give you the confidence of eating what you like, speaking easily and clearly, and a new sense of security.

By working together with Zimmer Dental, your dental practitioner can offer you the most advanced implants and prosthetics available today. To find out if implants are the right solution for you, ask your dental practitioner for an evaluation.

“I had never heard of implants until my dental practitioner told me they were the best choice for my situation. Now I don’t know how I ever lived with dentures.”

“I was surprised at how little discomfort I felt during the implant procedures. And my new implants look and feel great.”
Zimmer Dental offers several different types of implants to fit your individual case. If you are missing a single tooth and currently use a removable partial denture or tooth-supported crown, an implant-supported crown may be a better alternative. Single tooth replacements look and feel so natural, typically only you and your practitioner will know the difference.

**Implant-supported crowns can provide the following advantages over traditional treatment options:**

- Look, feel and perform similar to your natural tooth
- Help preserve surrounding bone by replacing the tooth root
- Help prevent bone loss and jaw line recession
- Do not compromise your adjacent teeth to support a bridge
- Restore a more secure biting ability than a removable denture
- Restore self-confidence and appearance
- Improve appearance and self-esteem
- Require similar oral care as a natural tooth

**Removable Full Denture**
Conventional dentures are used when all teeth are missing in the upper or lower jaw. They rest upon the gum tissue, offering no form of mechanical attachment.

**Fixed-Detachable Full Arch Restoration**
A fixed-detachable full arch restoration is used when all teeth are missing in the upper or lower jaw. In this procedure, multiple implants are placed and a custom fixed-detachable full arch restoration is seated directly into the implants. Using small screws, the restoration is then secured to the implant bodies.

**Implant-Supported Denture**
An implant-supported overdenture is used when all teeth are missing in the upper or lower jaw. In this procedure, multiple implants are placed and a custom metal framework is screwed onto the abutments. An overdenture is then placed on top of the metal frame. This denture fits “over” the restoration and attaches to it with clips or snaps.
Complete Lower or Upper Tooth Replacement

If you are missing all of your teeth in the upper and/or lower jaw and currently use a removable full denture, then an implant-supported denture could be the right solution for you. Unlike removable full dentures which can fit poorly, cause gum irritation and pain from exposed nerves, implant-supported bridges or dentures virtually eliminate slipping and movement, so there’s no pain, no embarrassment, and no worries. You’ll be able to laugh and speak with confidence, and enjoy your favorite foods with ease.

**Overdentures can provide the following advantages over traditional treatment options:**
- Hold the denture in place
- Help preserve surrounding bone by replacing the tooth root
- Help prevent bone loss and jaw line recession
- Restore a more secure biting ability than traditional removable dentures
- Improve appearance and self-esteem
- Provide comfort and security in knowing the denture won’t dislodge

**Traditional treatment options:**

**Tooth-Supported Crown**
One alternative treatment is to cut down adjacent good teeth to support a bridge to hold the missing tooth.

**Removable Partial Denture**
Another alternative is to anchor a removable partial denture to existing teeth. This option may result in further bone and tooth loss.

**Dental implant option:**

**Implant-Supported Crown**
Dental implants are used to replace missing teeth that have fallen out or have been extracted. They are surgically implanted into the jawbone to function like the root of your missing tooth. Dental implants will maintain your surrounding bone and soft tissue and will replace your missing tooth with a natural-looking restoration.

**Before and after clinical example:**

**Before** implant placement, there is an unsightly space in the patient’s mouth.

**After** six days post-operative. Implant placement and restoration, function and esthetics are restored to the patient.

*Clinical photos. ©2012 Paul Petrungaro, DDS. Chicago, IL, USA. All rights reserved. Results may vary depending on individual clinical situations and patient needs.
If you are missing multiple teeth, then an implant-supported bridge may be the solution for you. Unlike traditional bridgework or removable partial dentures that can slip, come loose, and cause irritation, an implant-supported bridge stays secure and strong, and won’t cause problems for your adjacent teeth. So comfortable and natural, they’ll look and feel just like your own teeth.

Implant-supported bridges can provide the following advantages over traditional treatment options:

- Provide comfort and stability
- Look, feel and perform like your natural teeth
- Do not compromise adjacent teeth to support a bridge
- Help preserve surrounding bone by replacing the tooth root
- Attach securely to implants
- Help prevent bone loss and jaw line recession
- Restore a more secure biting ability than a removable denture
- Eliminate recurrent wear and chance for decay around prepared teeth
- Improve appearance and self-esteem
- Require similar oral care as a natural tooth

Removable Partial Denture
A removable partial denture can be anchored to existing teeth. This option may result in further bone and tooth loss.

Implant-Supported Bridge
The multiple-tooth restoration is used when two or more teeth are missing. Implants are placed at the site of each missing tooth. In cases when 3 adjacent teeth are missing, it may be possible to place only 2 implants, one on each end. The implants are surgically placed into the jawbone to function like the root of your missing tooth. Dental implants can maintain your surrounding bone and soft tissue and will replace your missing tooth with a natural-looking restoration.

Before implant placement, the space in the patient’s mouth often prevents correct function and can be visually displeasing to the patient.

After implant placement and restoration, top view, function and esthetics are restored to the patient.

Clinical photos. ©2012 Markus Schlee, DMD, DDS, Forchheim, Germany. All rights reserved. Results may vary depending on individual clinical situations and patient needs.
Multiple Tooth Replacement

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Implant-supported bridges can provide the following advantages over traditional treatment options:

- Provide comfort and stability
- Look, feel and perform like your natural teeth
- Do not compromise adjacent teeth to support a bridge
- Help preserve surrounding bone by replacing the tooth root
- Attach securely to implants
- Help prevent bone loss and jaw line recession
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- Eliminate recurrent wear and chance for decay around prepared teeth
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Before implant placement, the space in the patient’s mouth often prevents correct function and can be visually displeasing to the patient.

After implant placement and restoration, top view, function and esthetics are restored to the patient.

Final restoration, side view.

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Complete Lower or Upper Tooth Replacement

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**Traditional treatment option:**

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