

A PATIENT'S GUIDE TO MINI DENTAL IMPLANTS

What Are Mini Implants?

Mini dental implants are ultra-small diameter (1.8 millimeter width), biocompatible titanium alloy implant screws, conceived and designed over 20 years ago by a board-certified Manhattan dentist, Victor I. Sendax, DDS. Dr. Sendax originally created the unique design of this unique dental product as a transitional device to help support fixed bridge replacements for lost teeth. His novel theory was that mini implants could function free standing by themselves or in combination with natural tooth supports and/or larger conventional type implants. This was a revolutionary concept in dental science.

Late in 1997, Dr. Sendax collaborated about his mini implant theory and design concepts with a colleague, Dr. Ronald A. Bulard, likewise a board-certified dental implantologist. As luck would have it, Dr. Bulard had previously formed a dental implant company, IMTEC Corporation, which was at the time manufacturing and marketing standard sized dental implants, abutments, and other dental products. Convinced they were on to something special, Drs. Sendax and Bulard spent countless hours studying and refining Dr. Sendax's original creative design, resulting in a more efficient top and collar to the mini implants. Combining this now re-designed implant with Dr. Sendax's original insertion protocol resulted in a successful breakthrough. Under Dr. Bulard's direction, IMTEC Corporation began the rather complex and expensive design and manufacturing procedures which ultimately resulted in what is now offered to the dental community under the brand name IMTEC *Sendax MDI* (mini dental implant). The innovative system and procedure was thereafter formally introduced to the United States dental community at an implant conference in Orlando, Florida in April, 1999. It was an instant success and now represents one of the fastest growing segments of the dental product industry.

Is the MDI FDA approved?

Contrary to common beliefs, the FDA doesn't "approve" any medical or dental device. Prior to his preliminary discussions with Dr. Bulard, Dr. Sendax had submitted a formal application to the FDA in Washington, D. C. seeking permission to market the mini dental implant devices to the general public. After providing satisfactory technical and clinical evidence to that agency that the product was safe for public use and in fact had beneficial attributes, the FDA granted its formal consent to market the *MDI* device not only as a transitional or temporary dental product, but significantly, as an *on-going* item. No competitor dental product can make this claim. As stated, IMTEC's introduction of the *MDI* to the dental industry and appropriate marketing efforts under a license granted by Dr. Sendax, followed the FDA's consent to market.

When can they be used?

When critically needed for support purposes, and where solid bony adaptation (integration) has clearly occurred, mini implants can function as long-term supporting structures rather than as short-term or medium term devices. In fact, some have been successfully functioning in patients' jaws for several decades.

What's the primary and most effective use for them?

The most effective use of this unique dental product is stabilization of a mandibular denture. There are approximately 50,000,000 people in the United States who are "edentulous" (literally meaning lacking teeth) who struggle daily with prosthetic devices. A majority suffers a great deal of discomfort as a result of loose or ill-fitting dentures. Also, many denture wearers simply withdraw

from any type of social engagement as a result of being compelled to wear them. Moreover, it's not uncommon for family members to complain about a denture wearer's disagreeable breath as a result of food being trapped and decaying under their denture prosthesis. Successful placement of the *MDI* addresses and solves all of these social and practical problems.

How specifically can mini dental implants help denture wearers?

The standard insertion protocol for mini dental implants calls for four of them to be gently screwed into the front of a patient's lower jaw, or mandible. This is a relatively painless procedure that can be performed by a general dentist, requiring only a mild anesthesia. The mini implants, which are approximately the size of wooden toothpicks, are placed about four millimeters apart in the patient's mandible. The patient's denture is then carefully adjusted by the dentist to allow it to snap onto the four mini implants. The result? A tight fitting, completely reliable system that allows a patient to speak and eat with confidence. All performed in about an hour's time. Because of the unique, minimally invasive procedure, the minute size of the implants, and the characteristic placement area, the typical *MDI* patient can enjoy a light meal within an hour's time from having the mini implants placed.

I'm somewhat aware of the tremendous forces the human jaw usually endures during normal chewing of food. How can these tiny implants withstand that?

It's true that what the dental profession calls *occlusal forces* create dynamic pressures on the human jaw. Our jaws are marvelously designed to adequately withstand those forces. It's also true that mankind has been struggling for centuries to come up with some type of metal or metallic element that can efficiently withstand those forces. Most have been outright failures. However, approximately twenty-five years ago some doctors around the world began experimenting with titanium as a potential dental medium. Titanium is an extremely strong metal used in the construction of aircraft and aircraft engines. The metal, in its commercial form, is incredibly strong and durable. The *Sendax MDI* takes that metallurgical concept to the next level by adapting an industry approved mixture of commercially pure titanium, a small percentage of aluminum, and a tiny sample of vanadium, likewise a malleable metallic element. The result is the strongest metal on earth, now commonly referred to as *titanium alloy*. In fact, extensive tests conducted several years ago by the University of Alabama-Birmingham School of Orthopedics at Dr. Sendax's behest revealed that the particular titanium alloy implants used in the IMTEC *Sendax MDI's* are 64% stronger than ones constructed of commercially pure titanium. The bottom line of this discussion area is simple: If a denture patient has sufficient bone mass to create a rock hard placement of the tiny implant, which an experienced dentist can usually determine by an initial examination, the mini dental implants will generally withstand normal occlusal forces just like natural teeth. Fractures are extremely rare, but as the case with a person's normal teeth, can certainly occur.

You've told us about the diameter of the implants. How long are they?

IMTEC Corporation manufactures and sells the implants in four lengths, 10, 13, 15 & 18mm's. One trained in dental science will recognize instantly that these lengths appropriately anticipate the type of depths that are needed in a wide variety of prospective *MDI* patients. The company also manufactures what it calls the *MDI MAX* that's sold in 10, 13 & 15mm's. The use of the *MAX* is explained in the next question.

I've been told by my dentist that my jaw bone is not "dense." Is this a problem with the MDI? Will a dentist be able to get a rock-solid resistance state in such a situation?

After utilizing the standard *MDI's* in his practice, Dr. Bulard quickly anticipated this type of dental patient, and as a result, has taken steps to expand IMTEC Corporation's original production offering to provide an *MDI MAX* implant. Equipped with the same dimensions as the standard ones, the *MAX* has a different thread design that enables the implant to bite into softer bone and hold. It's ideal for a patient whose bone density is lacking.

What about failures?

It must be recognized that all implant systems as well as natural teeth are subject to potential failure due to natural causes, including osteoporosis, poor oral hygiene, wear and tear attrition, poor health, heavy, stressful biting habits, and lack of follow-up dental maintenance care. Mini implants similarly do not carry any actual or implied guarantee as to longevity. However, the loss of a mini implant is a far less critical event to the patient since it may be replaced at relatively minimal cost compared to conventional implants, and with minimal associated bone or gum deterioration.

How are mini implants different?

As a revolutionary departure from routine implant methods, mini implants are so narrow they are typically inserted *directly* through the overlying gum tissue and into the bone underneath. Consequently the need to surgically cut and “flap” open the gum tissue, routinely required for standard implant systems, is avoided in most *MDI* applications. As a result, post-insertion patient irritation and soreness is significantly reduced. While all dental implants require care during insertion to avoid encroaching on vulnerable nerve, sinus or bony structures, the ultra small width of the mini implants offers a much more comfortable margin of safety.

What type surgery is involved?

A single, minimally invasive surgery is needed for insertion of the *MDI* mini implants. They are then put into *immediate* biting or “loading” function thanks to their “self-tapping” design, thereby anchoring a fixed bridge system. As a result, it is often possible to provide the complete mini implant service in a single office visit.

Mini dental implants clearly represent an enormous breakthrough for the dental implant specialty as the most patient-friendly, cost-effective, proven implant system available today.

What’s a typical daily routine one might expect once the MDI’s have been placed?

As with all dental applications, there’s a short adjustment period during which time the *MDI* patient becomes comfortable placing and removing the denture. Typically, this involves removal of the lower denture in the morning, brushing the gums and implant area with an *ACCESS* curved bristle toothbrush, rinsing the mouth, rinsing the denture itself, then replacing it. The result is a normal day’s activity for the patient, including eating, talking, taking a nap, etc. Then, in the evening, the denture is usually removed again, the *ACCESS* brush is used, and the mouth thoroughly rinsed. The *MDI* patient then opts to sleep with, or without his or her denture. The result is a fully functioning dental appliance that works, is socially acceptable, has a comfortable fit, etc.

How can I find out more about the IMTEC Sendax MDI?

If your computer is connected to the Internet, log onto IMTEC’s website, www.imtec.com, and click on the *Sendax MDI* portion. You’ll get a lot of information there. For dentists in your locale who are placing the *MDI*, click on Doctor Locator. Remember, this wonderful procedure is relatively new, and dentists and oral surgeons who have learned the system and have had experience in placing it, are likewise growing in number. More are being added to the company’s website each business day, however. While you’re at IMTEC’s site, check out the *ACCESS* curved bristle toothbrush that is specially designed to complement the *MDI*’s insofar as oral hygiene is concerned. It’s a perfect brush for implant patients.

I’ve heard that standard dental implants are somewhat expensive. What about these?

It goes without saying that dentists set their own fees based on a wide variety of factors. As you would expect, fees vary around the country and from doctor to doctor. The best way to address this issue is to engage your dentist of choice in a frank discussion about what to expect insofar as fees are concerned. In considering the costs of an *MDI* placement, bear in mind the costs of dentures and the costs of required periodic adjustments that can be expensive. Plus, by choosing the *MDI*, you've chosen an enhanced way of life free of a lot of the discomforts and heartaches of a loose or ill-fitting denture. That's worth a lot.

Recent comments received by Dr. Sendax & IMTEC concerning the *Sendax MDI*:

"I have completed four full lower upper and lower cases with your mini-implant system and have been extremely satisfied. My patients have been singing high praises about it. You have made a valuable contribution to the dental profession. I only hope more dentists will get on board."

Dr. Emil Verban – via e-mail: everban@dave-world.net

"I am glad to let you know that I used the Sendax MDI in my clinic to do an overdenture case. I bought the MDI kit from your distributor in India, Mr. George Varghese. The demonstration video on MDI for overdenture was very useful to me as this was my first case. After I did the overdenture case I am fully convinced that IMTEC's name for the MDI is apt. It is really a SMALL WONDER."

Dr. Jogi Abraham – via e-mail: drjogiabraham@hotmail.com

"I just had four mini implants installed in the lower jaw this morning after extracting nine teeth that were mostly erupted and gone. They cleaned everything, sutured up the sockets, and drilled into the bone in the symphysis region for two implants and the other two were placed at opposite sides on the mandible. Denture was attached and it feels great – better than real teeth! Wow! God bless American technology and the people that make it all possible. Also, I think I'd like this for my upper too, but the bone is thin there. Anyway, just wanted to crow a little. Thank you IMTEC!"

Ron S. Diament – Lake Hughes, California

Via e-mail: bigliond@aol.com

Victor I. Sendax, DDS
Diplomate, American Board of Oral Implantology/Implant Dentistry
30 Central Park South, Suite 14B
New York, New York 10019
212/753-2775
vis@sendax-minidentimpl.com

Ronald A. Bulard, DDS
Diplomate, American Board of Oral Implantology/Implant Dentistry
30 Central Park South, Suite 6B
New York, New York 10019
212/371-0288 or

580/226-0410
bulard@imtec.com

IMTEC Corporation
IMTEC Plaza
2401 North Commerce Street
Ardmore, Oklahoma 73401
580-223-4456
E-mail: *imtec@imtec.com*
Website: *www.imtec.com*
(c) 2001 IMTEC Corporation