

Dr. Andrei Mark

Dental Implant Specialist

By Mark Ellis

With over 20 years of experience in oral surgery and over 5,000 successful dental implant procedures to his credit, Dr. Andrei Mark is no newcomer to the field. At a time when more and more general dentists are venturing into implant dentistry, Dr. Mark is regarded by many of his peers as an expert in the field. In fact, an impressive number of Dr. Mark's peers trust their own oral surgery needs to his very capable hands.

Born in Bucharest, Romania Dr. Mark attributes his career choice to the influence of his mother who was a pediatrician and his father who was an engineer. The combination of engineering and medicine lead him to dentistry and oral surgery where he could apply medical and engineering principles into one specialty.

Accepted from high school into the seven-year, combination undergraduate and graduate dentistry program at NYU, Dr. Mark completed college in three years and transferred to the prestigious SUNY at Stony Brook School of Dental Medicine.

“Having studied together with medical students I was attracted to the medical side of dentistry,” explains Dr. Mark. “After completing an anesthesia internship during my second summer and an oral surgery fellowship per my third summer, I was hooked on surgery forever. I completed my residency training at the Long Island Jewish Medical Center, one of the top surgery programs in the area. Upon graduation in 1988, I started my private practice.”

IDENTITY CRISIS

“There is a challenge facing our specialty right now, one of an identity crisis,” comments Dr. Mark. “Do oral surgeons belong in the hospital as a medical specialty or should they be part of organized dentistry? The philosophical debate is on-going. Some six-year training programs offer a combination medical degree program while several other programs offer a dental degree and oral surgery training in residency.”

“While I have a strong connection to the medical community with respect to my training and work in hospitals participating



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directly in medical care, I see my role as an oral surgeon more directly related to the dental profession. In this regard I see my primary role is restoring the harmony of teeth and bones of the face with the placement of dental implants.”

IMPLANT DENTISTRY--THE EARLY DAYS

“My dental school years and residency was when implants were first introduced,” says Dr. Mark. “I was introduced to the Brånemark system where we did everything in the operating room



Dr. Mark explains the i-CAT scanning procedure before imaging the patient. “In the past I was very reluctant to send my patients for CAT scans because a medical grade machine will deliver a very high dose of radiation for a CAT scan,” comments Dr. Mark. “This machine (i-CAT) uses cone beam technology that uses less radiation than in a full-mouth series and provides a three-dimensional image in a 20-second path. By having the technology in my office I can control the cost of the CAT scan. If I need a post-operative scan it’s not a problem since it’s already included in my fee at no extra cost to the patient.”

under strict sterile conditions and the patient was draped. There was also a protocol we followed and there were no post-op x-rays because of the false belief irradiating the newly injured bone would affect the healing process. It was believed that everything had to be done in a sterile room when working in the mouth which is not a sterile environment. You can't sterilize the mouth. We found that there is no significant difference in the healing rate when comparing procedures done with sterile drapes in an operating room to those done without drapes in an dental office.”

“Twenty years ago we were in the infancy of this profession. The implant surface was pure machined titanium. Today it has evolved to a pitted surface, then titanium plasma spray (TPS) and now the latest surfaces are laser etched. I use the Biolok system which offers

both the acid etched base and laser etched surfaces. They laser a collar at the interface between the bone and soft tissue in a circumferential way around the implant. That has been shown to guide the natural cells into a circular circumference around the implant as opposed to allowing them to migrate inward. It stabilizes the epithelial down-growth and stabilizes the crestal bone resorption due to micro motion. It has also shown to have less bone resorption.”

IMPLANT DENTISTRY TODAY

What have been some of the most recent advances in implant dentistry that have had the most favorable impact on the outcome for the patient?



Dr. Mark seen here reviewing patient's CAT scans. The system's advanced imaging technology and software provides 3D images of the mouth from any viewing angle for greater detail and increased flexibility.

“The newer implants with the acid and laser etched surfaces enable the bone to bond better, stronger and faster than previous implants,” remarks Dr. Mark. “The bond strength has increased dramatically. In addition, we can go to loading an implant in about 10 to 12 weeks as opposed to four to six months previously. I still get a lot of doctors telling their patients that it takes six to nine months for the implants to integrate. With the new implants, in good bone without a bone graft, we can load the implants much quicker.”

IMMEDIATE LOAD IMPLANTS

Can a dental implant and prosthesis be placed all in a single visit and can the implant accept an immediate load?

“A lot of patients want to know if they can have immediate load which means putting the implant in and the prosthesis all in the same day,” says Dr. Mark. “I’ve performed that exact procedure on my mother-in-law...and I do like my mother-in-law.” Commenting further on his success with immediate load implants, “I have done

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numerous, probably 20 cases of immediate load implants in the last year. The caveat to the procedure is multiple implants going across the arch and splinted together, not a single tooth or two teeth. In the case of a single tooth or two teeth, if there is a lot of occlusal force or unfavorable motion on them they will fail. I reserve doing immediate load on multiple implants, six, eight and ten implants, splinted together rigidly in one prosthesis with a very strong cement or screw retainer.”

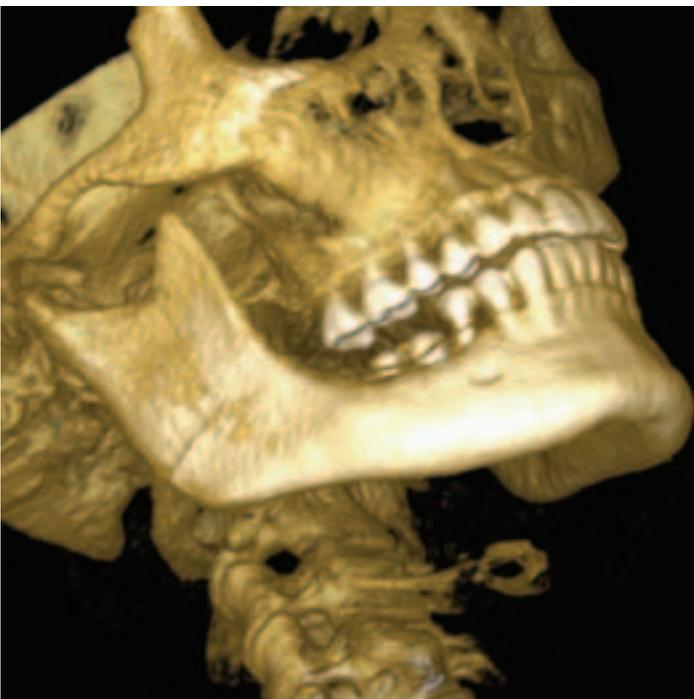
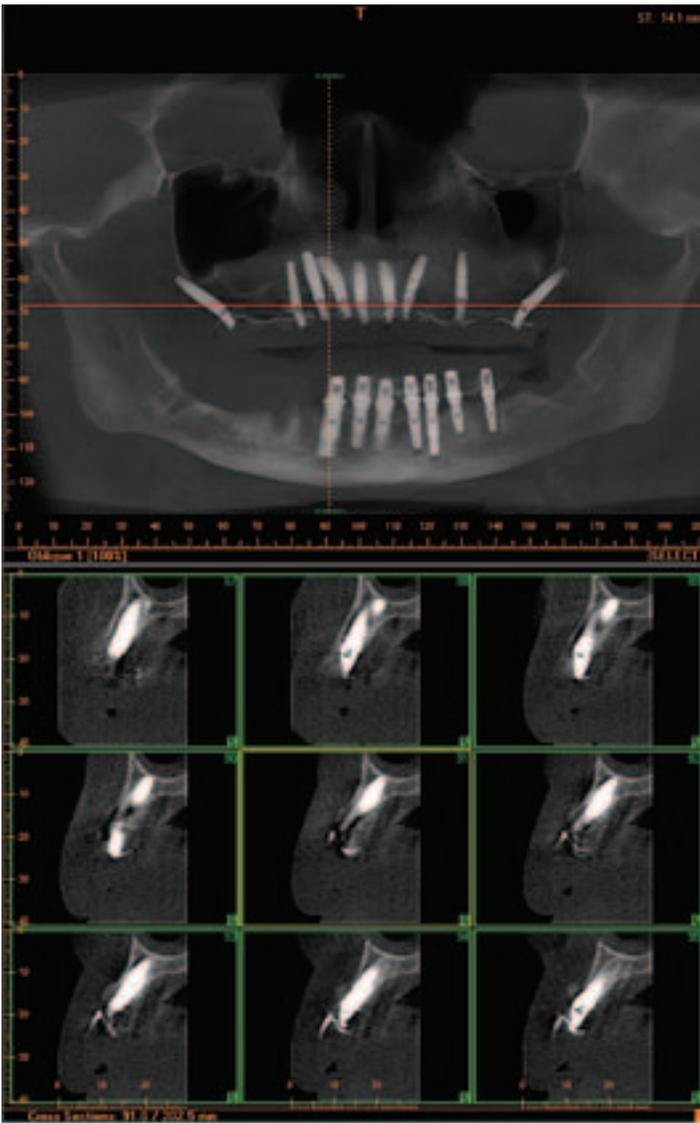
Citing an example of one patient he performed an immediate load implant procedure on, Dr. Mark said, “My 83-year old aunt came to me with her crumbling permanent bridge in her hand and she was told that she had to wear a full denture. She was devastated by the thought that her whole sense of who she is would be shattered by the fact that she now has to wear a full denture. I extracted nine of her remaining root tips that had retained the bridge and placed 10 implants and an immediate round-house bridge, acrylic temporary, in one visit. The psychological affect of doing that for her was just immeasurable.”

Commenting on the impact that total loss of teeth can have on a patient Dr. Mark added, “We have to understand losing your teeth, especially if you never had dentures and you're now converting to full dentures, is a dramatic event in a person's life. They will remember the event like the birth of a child or the loss of a relative. That's just how intense the emotional reaction a person can have to losing all their teeth.”

CONCERNS OVER DENTAL IMPLANTS

The popularity of dental implants has seen a growing number of general dentists who are not surgically trained placing implants. Is this surgical training really essential in ensuring the successful placement of a dental implant?

“There is the lack of continuing education in the field of implant restoration. There are certain basic principles that need to be



Top: CAT scan series taken with i-CAT machine.
Bottom: Color 3D x-ray image shown generated from 20-second scan and the i-CAT's 3D imaging software.



followed in order to successfully place dental implants. However, when those principles are compromised, the cases become more difficult and sometimes may lead to failure. The core principles are envisioning the final implant result before starting the procedures, proper occlusion, adequate torque on all retaining screws and allowing for retrievability by utilizing a cement that would allow for removal of the prosthesis.”

Commenting further on the challenges that general dentists face when placing dental implants for the first time, Dr. Mark said, “For the last 18 years, the focus of my practice has been dental implants. There has been a tremendous learning curve, both personal and a specialty-related, providing me with growth of knowledge. The dental implant discipline has mastered many problems that were plaguing implant dentistry in the past, such as screw retention, implant surface, inadequate abutments selection for the restorative

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process, to name a few. Specifically, from a purely surgical point of view, we have been able to treat more patients to height utilizing the existing bone in creative ways or by augmentation of existing bone with non-bone grafting techniques. This collective knowledge and experience, complemented by my surgical training, helps me to envision the final implant result even before I start the procedure.”

LOOKING AHEAD

Looking ahead to the future of implant dentistry and advances on the horizon, Dr. Mark said, “Bone morphogenic protein seems to be



Dr. Mark seen here explaining the laser drill to the patient before beginning the implant procedure.

a very promising new development. Unfortunately, for the majority of the patients at this point, it is extremely expensive, in the order of \$4,000 to \$5,000 for the material itself. The second material is a new product from Osteohealth called Gem21S. It is not based on bone morphogenic protein but is based on platelet derived growth factor.

A product I use now is naturally derived from the patient by extracting their blood and purifying their platelets, called platelet rich plasma. It releases a certain amount of growth factors and helps in the healing process. They (Osteohealth) have synthesized the platelet derived growth factor, one particular type, concentrated it



Dr. Mark and staff.

and put it into a bone graft medium that will deliver orders of magnitude higher levels of bone growth than we can get from the patient by concentrating their platelets. I am using some of that product now.”

EXCELLENT TRACK RECORD

“We have a product that works 95 to 97 percent of the time,” says Dr. Mark commenting on the success rate of dental implants. “Not many specialties can say that their surgical technique is successful 95 to 97 percent of the time. We do have a tremendous track record and a strong basis to stand and say that our product is good and reliable. It is very hard to improve from 95 percent of success. So when you ask about improvements and advances that we are looking forward to in the future, the reality is I think we deliver an excellent product today.”

Training:

Graduate, B.A. New York University (1980)
Graduate, D.D.S., SUNY at Stony Brook School of Dental Medicine (1984)
Oral & Maxillofacial Surgery Residency, Long Island Jewish Medical Center (1988)
Board Certified, Oral & Maxillofacial Surgery (1991)

Technology:

Imaging Sciences International
BioloK
Lifecore Biomedical
Benco Dental
Osteohealth
Botox
Restylane
Juvederm Ultra

Dental Lab:

Town & Country Dental Studios