KAREN O

From Failure to Fantastic
THE Pi TEAM

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Karen suffered from painful and swollen gum tissue in the upper jaw. This was attributed to the long standing infection and bone loss around historic Core-Vent and Screw Vent implants which were failing to provide the proper biomechanical support for a non-removable fixed prosthesis.

Karen desperately wanted to avoid the use of a removable denture prosthesis.

The biomedical engineering and clinical challenge was the removal of the failing and infected implants and simultaneously maintain the surrounding bone. That bone would be required to stabilize the new Branemark titanium implants.

The TEETH IN A DAY protocol was used to give Karen exactly what she was hoping for in comfort, esthetics and a revitalization of her self esteem.

The following pages highlight the clinical and laboratory process in rebuilding Karen's natural healthy and functional smile.
The happy end result of the TEETH IN A DAY treatment protocol.
Pretreatment upper plastic teeth supported by 10 year failing Core-Vent Implants. The plastic teeth have lost anatomic form.
Bone loss around infected implants is the result of long term chronic inflammation.
Old prosthesis design collects debris.
Pretreatment radiographs with failing upper Core-Vent and Screw-Vent implants.
Metal and acrylic teeth supported by failing infected implants.
Bone loss around infected Core-Vent and Screw Vent implants.
Failed implants cut off at a healthy bone level to eliminate the infection and inflammation.
Branemark implants and abutments installed in between the remaining apical tips of the failed Core-Vent implants.
Left: Close up view shows the remaining tips of the failed implant cut level at the crest of bone. Right: TEETH IN A DAY prosthesis connected to Branemark implants.
TEETH IN A DAY provisional prosthesis is refined and polished.
TEETH IN A DAY provisional prosthesis in function the day of implant placement.
TEETH IN A DAY provisional splints and stabilizes the new implants for three months.
Post surgery radiographs demonstrate the remainder of the failed implants with the new Branemark implants in place.
Palatal soft tissue completely healed at three months.
EXA'lence Vinyl PolyEther Silicone impression (GC America) of osseointegrated implants at three months is used to create the master cast.
Flexible gum tissue is applied on top of the EXA'lence impression material for the construction of the master cast.
Teeth are set to begin the construction of the CM Prosthesis.
Biomedical engineers and master dental technicians design and construction the framework pattern from a resin matrix.
After the milled titanium frame is complete, individual tooth preparations are then scanned for the construction of the CM Prosthesis ceramic teeth.
An optical scanner is used to create digital files for each tooth preparation.
Digital files are sent to milling machines for the precise construction of individual ceramic crowns.
Ceramic technicians then customize each individual ceramic crown.
The artistically sculpted and colored ceramic teeth are then securely cemented to the milled titanium framework which is ready for prosthetic gum tissue application.
After several days of custom gum tissue processing, the dental laboratory technicians carefully polish the final prosthesis in preparation for delivery to the patient.
The completed CM Prosthesis for the upper arch is now ready for delivery to the patient.
Custom bite guards are designed to protect the ceramic teeth from night grinding.
Healed soft tissue and osseointegrated Branemark implants now support the CM Prosthesis.
Karen's natural smile is restored with the CM Prothesis.
Post treatment radiographs of new osseointegrated Branemark Implants supporting the CM Prosthesis illustrates the individual ceramic teeth.
Post treatment lateral cephalometric radiograph demonstrates the support of the pterygoid implants.
Before & After
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No removable dentures required!
The entire team is excited and happy with Karen's new and healthy smile.