

A simple, esthetic, custom implant abutment

By John Highsmith, DDS, DICOI, AAACD

In implant reconstruction, the dimension from the implant platform to the crest of tissue, especially in esthetically critical areas, is often more than 2 mm. Many implant manufacturers supply a straight abutment for cement with the implant, which significantly can reduce the cost to the dentist.

However, these abutments tend to have a margin about 1 mm tall, which limits their use to relatively thin tissue. The problem with using a short margin abutment with thick tissue is that the margin ends up in an area where it can be impossible to clean up all the excess cement, leading to periodontal infection ("cementoma").

There are several options available currently.

- Purchase an abutment with a taller machined margin, which the dentist can prep to the desired height and contour. This can work, but there is the additional expense of the abutment

and the possibility of the metal abutment showing through thin tissue.

- Zirconia abutments, which can be either prepared or custom milled, such as the Atlantis abutment. These work well, but add expense to the case. The zirconia is also always a white color.
- A third option is herein described, where the straight abutment is modified with porcelain to create a custom abutment at minimal cost and improved esthetics.

This patient desired a dental implant retained crown to replace the retained primary tooth #C (Fig. 1). The cuspid had erupted into the lateral position, which was congenitally missing. We removed the primary

cuspid and immediately placed a Bio-horizons 4 x 12 mm implant (Fig. 2). I wanted the implant platform to be 2–3 mm below the desired free gingival margin, which actually necessitated a slight osteotomy (Fig. 3). If this had not been done, the final crown might look too short. A heal-

ing cap was placed and a denture tooth was bonded to the adjacent teeth with composite resin. The implant was allowed to osseointegrate for six months before loading.

At uncover, a screw-retained



Fig. 1



Fig. 2



Fig. 3



Fig. 4

→ page 2

Chicago dentist provides free care one day each year

By Fred Michmershuizen, Online Editor

Dr. Theodore M. Siegel wanted to give back to the local community, but he didn't want to just write a check to a charity. He wanted to do more. So he decided that for one day every year, he would open up his practice to all local patients and offer free services. Since his annual "Dentists With Heart" event began in 2005, Siegel said, more than 2,000 patients have been treated with more than \$1.25 million in care.

"For many, dentistry is an unaffordable luxury. Every year on Valentine's Day, our office provides free dental care to the less fortunate people in our community," said Siegel, whose Chicago practice, Big Smile Dental, offers a wide variety of cosmetic dentistry services, including complete smile makeovers, teeth whitening, porcelain veneers and more.



Theodore M. Siegel, DDS, started 'Dentists With Heart' in 2005. Since then, more than 2,000 patients have received free treatment.

For the most recent "Dentists With Heart" charity day, people braved cold winds and snow and began lining up at midnight. By the time the practice opened its doors at 9 a.m.,

→ page 2

AD

OT STUDY CLUB
COURSES | DISCUSSIONS | TECHNOLOGY | ON-DEMAND

ORTHODONTICS

"Online learning is not the next big thing, it is the now big thing."

Donna J. Abernathy
Training and Development Editor

ORTHO TRIBUNE STUDY CLUB
COURSES, COMMUNITY, TECHNOLOGY, ON-DEMAND

The OT Study Club makes all of this possible from the comfort of your own computer and without travel expenses. In other words, welcome to the community!

The purpose of this study club is to provide orthodontists like yourself an opportunity to learn and network with like-minded colleagues in a friendly, non-threatening environment. We encourage you to take advantage of OrthoTribune's global outreach to access a variety of fresh perspectives and cultures, enhancing your educational mix.

24/7 LIVE AND INTERACTIVE ONLINE COURSES

Fulfill your yearly CE requirements with our growing list of archived ADA CERP approved courses.

DISCUSSION FORUMS

focused on helping today's orthodontists stay up to date. Networking possibilities that go beyond borders to create a truly Global Dental Village

VIDEO REVIEWS OF PRODUCTS

Our opinion leaders unveil new products, services, and give you their first impressions of the industry's hottest topics.

PEER REVIEWED CASE STUDIES

Upload, comment, participate. We encourage you to share your cases for review with like-minded orthodontists.

REGISTER FOR FREE ON WWW.OTSTUDYCLUB.COM

CONTESTS WITH CHANCES TO WIN FREE TUITION FOR ADA/CERP C.E. ACCREDITED WEBINARS

SPONSORSHIP AND SPEAKING INQUIRIES:
JULIA WEHKAMP, J.WEHKAMP@OTSTUDYCLUB.COM, (416) 907-9836.

ADA CERP Continuing Education Recognition Program

WWW.OTSTUDYCLUB.COM

← CT page 1

temporary was fabricated to form the tissue contours. A straight abutment was cut to length and sandblasted. A thin layer of opaque flowable (Flow-it!, Jenric Pentron) was placed to block out the metal, then the temporary crown was built up with increments of flowable composite to create the crown shape (Fig. 4).

After polishing the subgingival portion to a high shine, the temporary was screwed into place, cotton was placed over the screw, and the incisal portion was filled in and contoured with flowable composite. The temporary crown was left in place for six weeks for tissue healing (Fig. 5).

The temporary was then removed after we were satisfied that the tissue was pink and healthy, and an impression ball cap was placed on an abutment. An impression was taken with a thin body impression material within just a few minutes of removing the temporary to avoid tissue collapse (Figs. 6, 7). Photos were taken to communicate shade to the ceramist (Fig. 8).



Fig. 5



Fig. 7

The ceramist took the straight abutment that came with the implant and contoured it for clearance with the opposing dentition. The margin of this abutment would be too far apical for adequate cement clearance, so he modified it with porcelain specifically developed for titanium (Vita Titainium Porcelain, Vident).

Emergence profile can be devel-



Fig. 6

oped as needed for the soft tissue profile, as well as adding a pink color to blend in with the gingival tissue (Figs. 9, 10). That can help in the esthetics if there is any tissue recession in future years, as well as maintaining the gingival color. A porcelain-to-metal crown was fabricated with a porcelain butt margin.

At delivery, the modified abutment was placed and the crown tried in. After any adjustments and approval obtained from the patient, the abutment screw was torqued into place. The screw access was filled in with Fermit-N (Ivoclar) and light cured. The crown was cemented with RelyX luting cement (3M) and final photographs taken. The "after" photograph shown (Fig. 8).

← CT page 1

the line had begun to wrap around the block. Patients received free cleanings, fillings, extractions, root canals and cosmetic procedures.

Siegel is not able to provide all this care by himself. Those offering free services included Dr. Anu Garg, Dr. Josephine Puleo and Dr. Christopher Quick of Big Smile Dental, Dr. Henry Lotsof of Ravenswood Dental Group at Methodist Hospital, Dr. Gary Hosters of Norwood Park Periodontics and Dr. David Hanson of Lincoln Park Institute. Other volunteers included students from the Harper College RDH program, plus hygienists, support staff and even patient volunteers.

"I would like to thank my family, my entire staff, our volunteers and our sponsors who insisted upon working without pay," Siegel said. "I am truly grateful to all of them for their passion, their help and their dedication to help those in need. Their hard work is an inspiration to everyone."

Siegel expressed appreciation for the many individuals and companies that provided support. For the most recent event, supplies were donated by Patterson Dental, Kerr, Hu-Friedy, Top Quality Mfg., Vital Rx Pharmacy, Ivoclar Vivadent, Larry Garrett and Frank Sasco. Several local restaurants provided catered food for patients and volunteers.

Siegel said there are many people without medical insurance in Chicago and an even greater number without dental insurance. Siegel explained that he and his staff feel that dental care is a necessary service that should be available to



Doctors and staff gather at Big Smile Dental for a group photograph. Everyone who works the 'Dentists With Heart' event does so for free.



Patients wait in line outside Big Smile Dental to receive free treatment.

everyone, even those who are unable to afford insurance. The practice's goal is to raise awareness in hopes that it will be easier in the future for uninsured people to find a dentist in the Chicago area to help ease their tooth discomfort and disease.

"I truly feel blessed and proud to be able to help so many people in need," Siegel said.

More information about the annual "Dentists With Heart" charity event is available on the Big Smile Dental Web site, www.bigsimiledental.com. For doctors who wish to set up a similar event in their own communities, Siegel has prepared an information packet. To receive the information, contact Siegel directly at bigsimiledental@aol.com. CT

COSMETIC TRIBUNE

The World's Dental Newspaper - US Edition

Publisher

Torsten Oemus
t.oemus@dtamerica.com

President

Peter Witteczek
p.witteczek@dtamerica.com

Chief Operating Officer

Eric Seid
e.seid@dtamerica.com

Group Editor

Robin Goodman
r.goodman@dtamerica.com

Editor in Chief Cosmetic Tribune

Dr. Lorin Berland
d.berland@dtamerica.com

Managing Editor Implant & Endo Tribune

Sierra Rendon
s.rendon@dtamerica.com

Managing Editor Ortho Tribune

Kristine Colker
k.colker@dtamerica.com

Online Editor

Fred Michmershuizen
f.michmershuizen@dtamerica.com

Product & Account Manager

Mark Eisen
m.eisen@dtamerica.com

Marketing Manager

Anna Wlodarczyk
a.wlodarczyk@dtamerica.com

Sales & Marketing Assistant

Lorrie Young
l.young@dtamerica.com

C.E. Manager

Julia E. Wehkamp
E-mail: j.wehkamp@dtamerica.com

Art Director

Yodit Tesfaye Walker
y.tesfaye@dtamerica.com

Dental Tribune America, LLC
215 West 35th Street, Suite 801
New York, NY 10001
Tel.: (212) 244-7181
Fax: (212) 244-7185

Published by Dental Tribune America
© 2009, Dental Tribune America, LLC. All rights reserved.

Cosmetic Tribune strives to maintain utmost accuracy in its news and clinical reports. If you find a factual error or content that requires clarification, please contact Group Editor Robin Goodman, at r.goodman@dtamerica.com. Cosmetic Tribune cannot assume responsibility for the validity of product claims or for typographical errors. The publisher also does not assume responsibility for product names or statements made by advertisers. Opinions expressed by authors are their own and may not reflect those of Dental Tribune America.

Tell us what you think!

Do you have general comments or criticism you would like to share? Is there a particular topic you would like to see articles about in Cosmetic Tribune? Let us know by e-mailing feedback@dtamerica.com. We look forward to hearing from you!



Fig. 8



Fig. 10



Fig. 9

11) demonstrated the healthy tissue. This post-op photo was two years after the case was delivered. The use of titanium porcelain on the abutment allowed the ceramist to control emergence profile, bring the margin to a cleansable level and color the subgingival material


for the best esthetics, all at a cost less than a milled zirconia abutment because the abutment came with the implant. Thanks to Mr. Kent Decker CDT for his artistry and help in developing this technique. 



Fig. 11

AD

About the author



Dr. Highsmith received his dental degree from the University of North Carolina School of Dentistry in 1984, after which he completed a general practice residency at the Veterans Administration Medical Center in Baltimore, Md. He has been in private practice in Clyde, N.C., since 1985. He is an accredited member of the AACD, a clinical instructor at LVI, a diplomate of the ICOI, and a fellow of the Misch Implant Institute. He takes more than 200 hours of continuing education annually, and considers his mentors Omer Reed, Bill Strupp, John Kois, Frank Spear, Bill Dickerson, Clayton Chan, Paul Sletten, Mark Hyman, Darryl Nabors, Steve Burch, Bill Domb and Carl Misch.

John Highsmith, DDS
AACD Accredited Dentist
Diplomate, International
Congress of Oral Implantologists
Fellow, Misch Implant Institute
LVI Clinical Instructor
E-mail: schminsk@bellsouth.net

Sultan



**THE MEETING YOU CAN'T
AFFORD TO MISS!**

July 30 - August 1, 2009

**The Westin St. Francis
San Francisco, California**

REGISTER NOW

Special Economic Summit

www.TheIACA.com 866.NOW.IACA

"The IACA is a unique event, it was not just about Dentistry, it was about life changes. IACA is special, it is unique, and it is an experience that every dentist on this planet should experience!" - Dr. Anil Makkar

*"This is the best group of people that I have ever been around. To see and feel all the positive energy was truly inspirational. I met some amazing people this week who share the passion we all share."
- Dr. Balaji Srinivasan*

*"Today the IACA started with four absolute legends of the profession talking about the past and future of dentistry and it was amazing! There is no other group on the planet that could gather this kind of a panel! Such an incredible group of people and experiences!"
- Dr. Mark Duncan*

"[I] was inspired; was educated; have grown in myself; have realized I have not expressed love and gratitude to as many as I should...IACA was yet again beyond compare!" - Dr. Fred Calavassy

2009 Conference Speakers*

Dr. Dick Barnes	Dr. Lori Kemmet
Ms. Sherry Blair	Dr. Sam Kherani
Dr. Steve Burch	Dr. Leo Malin
Dr. Matt Bynum	Ms. Judy Kay Mausolf
Dr. Fred Calavassy	Ms. Sally McKenzie
Dr. Doug Chase	Dr. David Miller
Dr. Stephen Cohen	Dr. Art Mowery
Dr. Louis Costa	Dr. Ross Nash
Dr. Mark Duncan	Dr. Lee Ostler
Mr. John Garcia	Dr. Prabu Raman
Dr. Jay Gerber	Dr. Michael Sernik
Ms. Wendy Hughes	Dr. Kent Smith
Dr. Ron Jackson	Dr. Norman Thomas
Dr. Bob Jankelson	Mr. Bill Wade
Mr. Neal Jeffrey	Dr. Bob Walker
Mr. Ashley Johnson	Dr. Larry Wolford

** tentative and partial list*

Presenting Partners

