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Doug Barrett and Tim Sweeney are happy to welcome Joe Barrett and Ben Sweeney as co-owners of Dental Designs

We would like to take this moment to tell you that Joe and Ben are now the proud co-owners of Dental Designs. Joe, who has been with the lab for twelve years, specializes in all ceramics. Ben has been working at the lab for ten years and specializes in implants. Since both Joe and Ben were born they have been involved with the exciting growth of the lab. "We have experienced it grow from just three courageous men to a lab with two locations. We have seen the relationships our fathers have had with doctors from Lincoln, Nebraska to Farmington, Maine. We have witnessed countless patients whose lives have been changed by the dedication of the doctor working hand in hand with us to give that patient what not only looks beautiful but functions for them."

Throughout the thirty one years that Dental Designs has been in business the focus has been on family values and a strong work ethic. "Both of our grandfathers, Mark Barrett and Jack Sweeney, were involved with the lab from the very beginning. Their hard work ethic was passed to our fathers and, in turn, past to us. Simply put, work hard and do your best. As Ben and I assume the ownership of Dental Designs, it is our goal to continue the legacy that our grandfathers and fathers have started, and to continue to give our doctors what their patients deserve... a restoration that is functional and beautiful."



Now Offering Phonares Denture Teeth!

Phonares denture teeth from Ivoclar are a harder, more wear resistant tooth. Phonares are a naturally shaped tooth and look beautiful in the mouth. They work best when we have more space, so we don't have to grind the underside too much during fabrication. The underside is softer than the occlusal surface to enhance bonding to the denture base. If you remove all the soft, as in a tight bite case or immediates, you will have problems with pop offs. In conclusion, Phonares can be one of our best options to prevent wear when used with the proper protocol.

“Happiness is your dentist telling you it won't hurt and then having him catch his hand in the drill.”

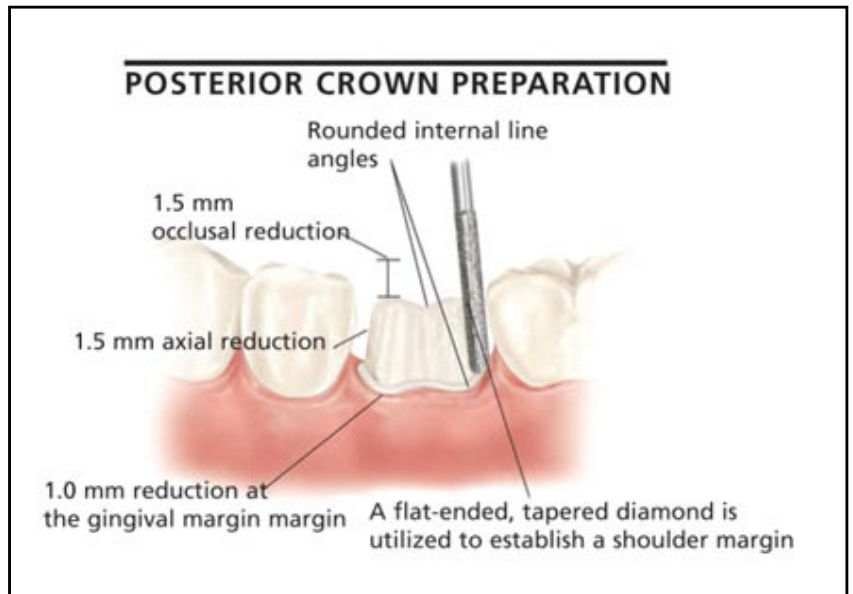
— Johnny Carson

All Ceramic Choices

THE “WHAT” AND “WHEN” FOR YOUR PATIENTS

IPS e.max Lithium Disilicate

As technology has progressed, so has material manufacturing with regards to glass ceramics. With the introduction of IPS e.max Lithium Disilicate, strength and beauty are combined into a single all-ceramic material offering structural integrity that is unprecedented along with the versatility of conventional cementation.



Recent clinical and laboratory testing continues to demonstrate that IPS e.max Lithium Disilicate is an extremely durable material capable of long term success, making it the most robust all-ceramic material tested to date. When compared to veneered zirconia-based crowns, rigorous testing has conclusively shown that IPS e.max crowns are far less likely to chip or fracture, opening a new range of possibilities and options for all-ceramic restorations. Dental Designs continues to offer these aesthetically beautiful all-ceramic restorations for the low price of \$110 with the shortened fabrication time of only 5 working days.

Full Contour Zirconia/Design Zirconia (dZ)

Design Zirconia is zirconia milled out to full contour. It may be the most durable all-ceramic product ever created. This material is intended to be



seated in a posterior situation, as it is not as esthetic as layered zirconia. Its advantages include not only strength, but an alternative to a full cast gold crown. It is an ideal restoration for a patient who desires all-

ceramic and is a bruxer. We do not recommend this restoration for use in the esthetic zone, due to the material not being as vital as e.max or layered zirconia. Design Zirconia is available for \$99 per unit and can be fabricated in only 5 working days or less!

Layered Zirconia

We have been fabricating layered zirconia since zirconia was first on the market. We use the highest quality layering porcelain (Noritake) and stack the porcelain like a traditional PFM. We use porcelain fused to zirconia in



any position in the mouth, from single units to multiple unit long span bridges, in fact, we recommend porcelain fused to zirconia in posterior bridges and anterior bridges.



Randy Stromberg

**Spotlight on Randy Stromberg
Omaha Removable
Department Manager**

Randy Stromberg manages the Removable department at our Omaha laboratory. He has been with Dental Designs since 2007 but has been a dental technician for 35 years. Randy started at a dental lab in Lincoln in the mid 70's where he worked with Tim Sweeney and Doug Barrett (what a coincidence!). He started his own lab in the 80's, then took a position at Sickler Dental Studio in Kearney in the 90's.

Randy has a vast amount of knowledge and talent working with dentures, acrylic partials, repairs, bite splints, and laser welding. He has also attended several educational seminars on Implants. Randy works very closely with many of our dentists on treatment advice and problem solving. He is a great asset to our lab and our clients.

Randy grew up in Central Nebraska, went to high school in York. His wife, Sue, is an insurance agent in Omaha. They have two sons, Matt, who works for Dental Designs in Lincoln, and Zach, who does research at UNL. Randy enjoys traveling, 60's and 70's rock bands, blue's music, and a little wine now and then!

	Posterior Crowns	Anterior Crown	Bridge	Veneer	Implant	Inlay/Onlay
e.max	Yes	Yes	Yes (Anterior only)	Yes	Yes	Yes (press only)
Porcelain Fused to Zirconia	Yes	Yes	Yes	No	Yes	No
Full Contour Zirconia	Yes	No	No	No	Yes	No
Traditional PFM (porcelain fused to metal)	Yes	Yes	Yes	No	Yes	No

Dental Joke

A woman and her husband interrupted their vacation to go to the dentist. "I want a tooth pulled, and I don't want Novacaine because I'm in a big hurry," the woman said. "Just extract the tooth as quickly as possible, and we'll be on our way." The dentist was quite impressed."You're certainly a courageous woman," he said. "Which tooth is it?" The woman turned to her husband and said, "Show him your tooth, dear."

Dental Designs Helping You 'Connect' to the Future

The use of CAD/CAM technology and digital dentistry is already firmly established in many dental laboratories around the world. Dental Designs has maintained its place on the forefront of this Digital Revolution with the use of several reliable CAD/CAM systems which have allowed us to provide a more accurate restoration to our doctors. Our dedication to providing the best product and service to our doctors continues with our work with digital impressions.



Digital Impressions have a name and that name is Cerec Connect. The conventional impression method along with subsequent model production presents the most labor intensive and error prone processes in dental practices and laboratories. Now through the use of Cerec Connect the entire process, from taking conventional impressions in the dental practice to the production of a final restoration in the dental lab, can be almost completely digitalized. The use of digital impressions facilitates precision and minimizes possible sources of error, while also opening a line of communication between doctor and laboratory that previously did not exist. Using Cerec Connect, dentists and lab technicians can view digital impressions and discuss important case parameters or necessary modifications in real time –even while the patient is still in the chair. No other digital impression system allows this kind of immediate collaboration, ensuring ideal restorative results and a perfect fit every time.

Dental Designs has been a registered Cerec Connect inLab laboratory since its inception almost two years ago. We are able to provide Cerec Connect dentists with high quality restorations via our Cerec blueCAM software and through the use of infiniDent SLA models, allowing us to produce a wide array of fixed restorations. You can Connect with Dental Designs as your laboratory of choice at cerec-connect.com or via our website.

Coming this Fall Dental Designs is teaming up with Sirona Dental to provide a Digital Dentistry Symposium to provide you with the latest and greatest innovations in Digital Dentistry. We look forward to seeing you there.

IMPLANT CEMENT

TIDBITS AND INFORMATION BY
BEN SWEENEY

1. Failure to completely remove excess cement can lead to future problems such as Peri-implantitis.

How is this combated?

There are several things that may be done to combat this.

- Do not overload your crown with cement. The crowns are designed to fit snug against the implant not leaving much of a void for excess cement to fill. A sufficient ring around the inside at the gingival, allowing room for the cement to flow upwards, will lessen any excess flowing out.
- Make sure your abutment margin is not too far subgingival, allowing a probe to access any excess cement. 1 mm is sufficient on posterior crowns and 2 mm on anterior crowns. This will account for any tissue loss that may be associated with an implant.
- Use a zinc based cement. This cement is radio-opaque therefore any excess will be seen on an X-ray.
- A screw retained crown eliminates any concern about cement all together

2. Many Dr.'s will use a temporary cement for a long term solution with the idea that, should the abutment, or screw, ever come loose, there is an accessibility to the screw to remove the abutment, and/or re-torque.

- There is nothing wrong with using a permanent cement on an implant crown. However, it should be noted that should the abutment ever need any tightening, or removal (Which, I would preface, is rare), the crown will most likely need to be destroyed to gain access to the screw.

- Some Dr's will request the following as an added step to assure retention when using a temporary cement:

1. Grit blasted abutment surface.
2. Drill 1 or 2 small holes at the apex of the abutment for reverse flow of cement into the chamber.
3. Request "foiled" occlusion to ensure a light centric contact and no excursive movement contact.

There is a great study titled "A descriptive study of the radiographic density of implant restorative cements" by Wadhvani, et.al that goes into detail about name brand cements. I have many copies, and if you are interested, please contact me and I will send you one.

Nebraska Mission Of Mercy

In 2009, I was fortunate to participate in the **NMOM** - the Nebraska Mission of Mercy. It was an eye-opener for me. First, I was totally unaware of the amount of people in need of dental care that can't afford it. Secondly, it was the amount of volunteers so willing to support the NMOM. The organization of the whole project was amazing. There were hundreds of dentist, dental assistants, hygienists, staff, lab techs and volunteers during the two day event. All professional care, equipment and materials were donated.

A little history about the Nebraska Mission of Mercy - **NMOM**. It started in 2001 in Virginia. The Mission of Mercy Projects are conducted in identified, underserved areas of the state where there are not enough dental practitioners to adequately address the oral health needs of the community. Nebraska held its first **NMOM 2005** in North Platte. Over 900 patients were seen in two days with over \$350,000 of dental care provided.

NMOM 2006 was held in Grand Island. Over 1,600 patients were seen and over \$700,000 of dental care was administered to "those who need it the most".

NMOM 2007 was held in Norfolk. 1,393 patients were served and \$504,606 in dental care was provided.

NMOM 2008 took place in Mitchell. 1,065 patients were seen, providing \$571,515 worth of dental care.

NMOM 2009 was held at Papillion/LaVista, treating 1,427 patients and providing \$608,621 in dental services.

NMOM 2005-2009 a total of more than 6,000 people have been treated, with dentists providing nearly \$2.75 million in free dental care.

Wow, some big dollars and a lot of people. I felt so good about volunteering in 2009 that when I was asked by Dr. Vicki Treat to assist her this year, I jumped at the chance to help more people. Out stint was for Friday from 11:00 - 6:00. I think we helped about 8 people with a number of amalgams, a composite and re-cementing a crown.

NMOM 2011 was held in Grand Island and served 1,378 patients and did 6,264 procedures over the course of two days. Many people camped out 24 hours in advance of the first day. Even though the line had to be cut off both days they still managed 1,519 extractions, 1976 fillings, 492 cleanings, 30 root canals and 1005 x-rays.

NMOM 2012 will be in Alliance. I am looking forward to helping out. I hope you all get a chance to volunteer. It is really fun and rewarding. The people are great and they feed you well. So, if you are looking for an assistant, give me a call. That is, if Dr. Treat doesn't ask first!

Robin Miller



Dr. Vicki Treat, DDS and Robin Miller



Locator implants

The most common question asked about Locator implants is what color insert is best. The answer is- whatever works best specifically for your patient. Some patients have more strength in their hands than others. Others want it easier to remove. The benefit of Locator inserts are that they are easily removed and replaced. You can try different colors until the patient is satisfied.

The other way we look at Locators is what the design is. How many are there? Are they parallel or angled?

The more there are, then the lower the retention inserts you use. You always have the option of moving up to the next retention level on one, two or all of them.

Another consideration is, are the implants parallel or not. They all may not tilt the same way so there are Extended Range inserts. These are the RED, ORANGE and GREEN. These can correct up to 40 degrees of angle correction. This may apply to one, two or all the implants. It is acceptable to use combinations of straight and Extended Range in the same denture. Sometimes it's easier just to use all the same color when using Extended Range for example 4 RED would be the least retentive grouping. Again, a mix of colors would still work. Just be careful to not start with too much retention because these can be very difficult to remove, a nice problem to have, but the patient should not have to strain to remove their denture.

The newest color option is GREY, which is a zero retention insert, and works well if you have 5 or 6 implants to use and want to engage less than that but maintain options on the others.

Below is a chart of the different options. Please call me with any questions you might have.

Written by Terry Johnson CDT



Dual Retention 0-10 degrees
(8524) Clear: 5.0 Lbs (2268 Grams)
(8527) Pink: 3.0 Lbs (1361 Grams)
(8529) Blue: 1.5 Lbs (680 Grams)



Extended Range
Angle Retention 10-20 degrees
(8547) Green: 3-4 Lbs (1361-1814 Grams)
(8915) Orange: 2.0 Lbs (907 Grams)
(8548) Red: 0.5 - 1.5 Lbs (226-680 Grams)
(8558) Gray: 0 (zero) Retention



Full Cast Metal Crown Options

Since the price of gold seems to be going up daily it's nice to know that Dental Designs offers alternatives to high noble Argenco 58% gold that is our standard for full gold crowns. Argenco 46 - low gold - is a 46% gold noble metal that saves \$10.30 per dwt. over 58%. If high noble is desired we have Argenco 52HN a \$4.00 less per dwt. than 58%. Dental Designs also offers two other metals that are quite a bit less. Argenco W is a silver palladium alloy saving \$47.90 per dwt. Argenco Y+ is a 2% gold/silver/palladium alloy with 30% indium for a slightly gold color. The price is \$40.60 less per dwt. than 58%. If you have any questions please contact Roger Van Cleave or Tim Kaputska.

Just a Reminder...

When sending in a surgical guide, please remember we need a full model of the implant arch and an opposing model. This allows us to determine vertical width and ensures that we have ample occlusal space to accommodate an implant and crown.

ZIRCONIUM Vs. TITANIUM

by Ben Sweeney

There are many things to consider when choosing the type of preferred abutment for your implant restoration. The rationale should come down to a question of want vs. need. Meaning: I want a zirconium abutment, but do I need a zirconium abutment? The Following are a few ideas to remember.



- 1-** Biotype- If the patient has a thin biotype, you may want to use a zirconium abutment to eliminate a gray show through. A thick biotype would eliminate this.
- 2-** Where is the implant in the mouth. If the implant is in the upper posterior, is there really a need for an all porcelain crown? Our laboratory tends to limit all porcelain crown/abutments from first bicuspid forward.
- 3-** How subgingival is the implant? At what angle does the implant incline? Most, if not all CAD/CAM systems have more strict limitations on the milling of zirconium abutments, than titanium. Zirconium abutments should stay below 10mm in height, and angled no more than 20 degrees.
- 4-** The patient's existing dentition- Does the patient already have existing adjacent pfm's? Any lab tech will tell you it is a little tricky getting all porcelain restorations to match porcelain to metal restorations.
- 5-** When considering an implant born bridge: How parallel are the implants? Getting implant abutments to align for proper draw can be tricky and sometimes require loss of surface area of abutments. This is not an issue for titanium abutments, however, losing surface area on a zirconium abutment may weaken its tensile and flexural strength. While zirconium is a strong substance, it is not nearly as strong as metal.
I think that a general rule of thumb should be to do all porcelain in the anterior when the implant depth and angulation allow for it, and stick to porcelain to metal in the posterior.



New Chrome Cobalt PFMs

Dental Designs is now offering Durabond NF (chrome cobalt) non-precious ceramic alloy. The alloy is similar to non precious but is nickel free. We have decided to make this alloy available to our clients, not only as an alternative to nickel, but because of the rising gold prices in the market over the past year.

Properties of Durabond NF

Chromium	.5 mg/m
Molybdenum	10mg/m
Cobalt	15.mg/m

Dental Joke

When a new dentist set up in a small town he quickly acquired a reputation of being the latest kind of "Painless" dentist. But a local lad quickly disputed this. "He's a fake!" he told his mates. "He's not painless at all. When he stuck his finger in my mouth I bit him - and he yelled like anyone else."

UNL Sharing Clinic

For more than a year now, Dental Designs has been volunteering our time and talent to the Sharing Clinic at UNL Dental College. The clinic meets quarterly to provide free dental work to the underserved, uninsured and low income populations.

Lisa, Cindy, Viki, Deb and Darla from our removable department make flipper partials for those who are missing a tooth or just had a tooth extracted. Sometimes it is just a simple repair to add a tooth or clasp to an existing partial. I usually deliver the partial to the student, hunt down a shade or help the ladies with some model work.

It is very rewarding to see these people leave with a smile. Thanks to all our staff who participate at the Sharing Clinic. You're the best!

Robin



In the O! — Did you know?...

... that Dental Designs in Omaha now offers all of the following services?

- Expertise in Color Matching
- Expertise in all types of crowns, including emax and dz
- Expertise in fixed and removable Implants
- Expertise in all Removable products including dentures, partials, Heat & Seat Splints, repairs, and Laser Welding
- Provide and deliver Implant components and tools
- Lunch & Learn presentations for CE credits
- And, Otis Spunkmeyer COOKIES!

Give us a call! We are 'At Your Service'!
402-496-1400

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