

# INCISAL EDGE



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The quarterly newsletter of  
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## ZIRCONIA – SUPPORTED AND LITHIUM DISILICATE RESTORATIONS

Fractures in ceramic restorations have always been a challenge for technicians. Traditionally, they were caused by the lack of strength of feldspathic ceramic and insufficient bonding to the tooth.

While newer, stronger ceramics and improved bonding agents help prevent fractures, it's still important to remember that proper substructure design that provides adequate porcelain support is critical to the success of a case, and this is especially true for zirconia restorations, as it is also for PFMs.

Just a few years ago only about 11% of restorations in the United States were all ceramic. Now, that figure has almost doubled with the advent of zirconia and lithium disilicate and the challenges of fractures are still there.

Here is what our laboratory knows about these new materials from research, in-lab testing and the experience of having units "out there."

First of all, zirconia is an incredibly strong material; stronger than almost all alloys. Like the vast majority of laboratories in this country, we have been extremely successful with its use. However there are properties unique to zirconia that if not understood by the laboratory, the material improperly treated will cause chipping of the porcelain. A laboratory that understands design of the substructure, proper support wherever the porcelain comes in contact with the opposing occlusal cusps, proper tooth preparation, and how the zirconia absorbs heat compared to most metals, will achieve the predictability and longevity of successful zirconia-based restorations.

Lithium disilicate is a material we do not compare with zirconia. We compare it to a product like Empress. Zirconia is a base material

and lithium disilicate is a stand alone material. It certainly is stronger than the porcelain bonded to zirconia, but not stronger than zirconia itself. Comparing the two is like comparing apples to oranges, and like Empress, strength with this material is achieved with the bonding. However, we like lithium disilicate when comparing it to a material like Empress because of its overall strength and esthetics. We can achieve very good anterior esthetics with lithium disilicate. By incorporating the same considerations as zirconia (proper design, etc.) we can achieve the same success rate we have been receiving for our zirconia restorations.

The lab's responsibilities for these ceramic restorations is the same as it has been for anything that is produced in the laboratory, namely uncover the mysteries of materials through education, proper training, research and support by the manufacturer, and quality raw materials. Besides Fit, Form, and Function, the idea is also to relieve stress for our clients and our laboratory.

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United States were all ceramic.

# PRODUCT PROFILE

TAP® 3

(THORTON ADJUSTABLE POSITIONER® 3)

## DESCRIPTION

TAP® 3 is a custom adjustable oral appliance for the treatment of snoring and obstructive sleep apnea. It holds the lower jaw in a forward position so that it does not fall open during the night and cause airway collapse. The TAP® 3 maintains a clear airway to reduce snoring and improve breathing.

## DOCTORS' BENEFITS

- Effective device to treat snoring and/or mild to moderate obstructive sleep apnea
- Custom-made to prevent any change in teeth position or mouth structures
- Easy to fit, infinitely adjustable
- Interchangeable hooks for Class I, II, or III jaw types

## SEND TO LABORATORY

- Maxillary and mandibular full arch impressions or models
- Bite registration in protrusive

## INDICATIONS

- Oral device intended to reduce or alleviate nighttime snoring and obstructive sleep apnea (OSA)

## PREPARATION INSTRUCTIONS

- Take full arch alginate impressions of the upper and lower arches and pour stone models to send to the lab
- Take a bite registration in protrusive

## SEATING INSTRUCTIONS

- Inspect device prior to use for material degradation or cracks
- Place the TAP in your mouth with the hook already engaged with the lingual bar. Make sure that the hook is in its initial starting point
- To remove either the upper or lower trays, gently open your mouth while the hook is still engaged. At the same time lift up on the lower tray or pull down on the upper tray to loosen either tray and remove

## INSURANCE CODE

- EO486 - Oral device/appliance used to reduce upper airway collapsibility, adjustable or non-adjustable, custom fabricated, includes fitting and adjustment

# LESSONS FROM JOHN PAUL JONES

The water was littered with fragments of sail boat and broken masts and spars and men struggling to stay afloat.

After a lull in the fighting, John Paul Jones, a hero of the American navy and captain of the crippled and sinking ship Bon Homme Richard, contemplates his next move.

They hear the men of the British frigate Serapis but can't see her through the fog. Suddenly, the captain of the Serapis cries out across the water:

“HAVE YOU STRUCK YOUR COLORS?”

And from the shattered Bon Homme Richard comes a defiant shout:

“I HAVE NOT YET BEGUN TO FIGHT!”

John Paul Jones, hero of the American navy, is reworking his plan. He decides the only way to win is to board the enemy ship and fight the British on her own decks!

After some deft maneuvering and a little luck with the anchor chains, the Bon Homme Richard snags the chain of the Serapis, and the two are lashed together.

The enemy is caught!

Board her! Board her! John Paul shouts to his men.

Just minutes after the Americans swarm across to the decks of the Serapis, the British captain strikes his colors and it's the Americans who win, sailing away the proud owners of a new British warship.

There are two valuable lessons here for all of us. Mike Tyson said, “Everyone's got a plan till they get punched in the nose.” There is a good chance, maybe even a sure bet, that your and our laboratory's plans for 2009 didn't survive contact with the economic meltdown we experienced last fall. Maybe you, like us, had to dodge your way through cannon balls like tight cash flow, reduced work, and slow receivables.

We had to change our plan to not just survive, but to position ourselves for the future. We have learned we've got to be lean—run a tight ship, eliminate waste and continually ascertain what the needs of our clients are.

We have to be agile, adapting quickly to business changes and needs as the work unfolds. It's about quick wins and immediate correction with each baby step. Our enemy is not the problems we are all wrestling with. Our enemy is FUD—Fear, Uncertainty, and Doubt. No matter how good our plan is we have learned we'd better have pit-bull like persistence and courage to take action when the cannon balls are flying to face adversity and to get things done no matter what.

# SEMINAR – PRACTICAL APPLICATIONS FOR RESTORATIVE IMPLANT DENTISTRY

FRIDAY, NOVEMBER 13, 2009  
8:00 A.M. TO 4:00 P.M.

Dental implants are a reality in today's delivery of restorative dentistry. Numerous authors and implant congresses have defined standards of care today in restorative dentistry, and implants are an integral part of that standard. This course will focus on ensuring profitability when delivering implant restorations, removable implant overdentures, loading protocols, immediate provisionalization, and patient specific abutments. While we continually strive to coordinate the logistics of implant restorative dentistry for the health of the patient, too many times we fail to realize the steps necessary to ensure profitability in these procedures for the health of the practice.

This course will critically explore the options of replacing a single tooth with conventional endodontics with post/dowel and crown, versus a three-unit bridge, versus implant therapy. A step-by-step approach to ensuring implant profitability as well as that therapy's greater profit margin will be discussed in detail.

Confusion abounds as to what approach should be utilized for the completely edentulous patient when overdenture treatment is proposed. Dr. Franzen will present a step-by-step approach to implant overdentures, addressing such issues as bars and un-splinted abutments.

As Immediate Loading and Provisionalization are the "hot topics" of the day in implant dentistry, Dr. Franzen will discuss the logistics of these clinical procedures and give guidelines for the appropriate timing of definitive restorations and loading. And finally, the clinical steps and logistics of providing your patients with custom CAD-CAM designed abutments will be presented.

**Please call Dawn Pilsner at 800-236-3859 or 608-849-5343 to register.**

## ABOUT THE SPEAKER



**Dr. Barry Franzen** is a 1982 graduate of Marquette University-School of Dentistry. In 1985, he completed a three-year post doctorate degree in Prosthodontics and Maxillofacial Prosthodontics at the University of Missouri and Truman Medical

Center in Kansas City. Prior to teaching at Marquette University-School of Dentistry from 1985–1989 as an Adjunctive Graduate Professor, Dr. Franzen maintained a private general dental practice in Kansas City. Since that time, Dr. Franzen has maintained a private practice limited to Prosthodontics in Milwaukee, Wisconsin, which includes all phases of prosthodontics. Implant restorative dentistry is a primary focus of the practice. Dr. Franzen maintains membership in many major professional dental associations, including the American College of Prosthodontics, the Academy of Osseointegration, and many local Wisconsin associations. Dr. Franzen is a past president of the Wisconsin Section of the American College of Prosthodontics.

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# RECOMMENDATIONS FOR DENTAL DIGITAL PHOTOGRAPHY CAMERAS

RITA BAUER – RITA.BAUER@DENTISTRY.UTORONTO.CA

Rita Bauer is the Digital Media Specialist at the University of Toronto where she provides photographic material for educational purposes and teaches clinical photography, Powerpoint presentation techniques and digital photography.

She specializes in making digital photography easily accessible for dentists and their staff, and in transforming inexperienced photographers into enthusiastic, competent digital camera users.



**There are two recommendations Rita has depending on the requirements of the dentist:**



The Canon Rebel Xsi or X1i with a Canon 100 mm macro lens and a Canon Ring flash (approx. 2300.00) which can be purchased at any camera store—but be careful that they do not substitute the lens with another make.

The Nikon Coolpix P90 needs very specific set-up instructions and can be purchased anywhere, but will not have dental set-up instructions. The closest view is a full mouth and you would need to crop the image if you need a closer view. A very reputable dental supply company is selling it at the moment with the dental photography instruction booklet included. [www.maselortho.com](http://www.maselortho.com) Item # 4000978 - \$429.00



We believe our standards are reference points by which others might judge their own success. Our efforts establishing these respected benchmarks have made us leaders in our field.



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