

The Dent-Liner™



Peter T. Pontsa, RDT has over 40 years of experience in the dental profession. In 1991 he established Dent-Line of Canada Inc. and is currently president of this dental supply company. He is a leader in superior professional techniques in fixed and removable restorations and he shares this knowledge through articles and seminars which he regularly provides. Peter is a past president of the College of Dental Technologists of Ontario. He is also pleased to be involved as co-publisher of Spectrum Denturism.

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A Bulletin Dealing With Issues For Dental Health Professionals

Customizing Titanium Abutments

In the preceding twenty years, dentistry has faced many wide-ranging changes; the most significant being the introduction of endosseous dental implants. CAD/CAM also has evolved during the same period and has been easily accessible to dental laboratories as well as to clinical dentistry. These changes have led to some concerns about long term results which is why the extensive success of crown and bridge on natural teeth and implants depends on numerous characteristics pertaining to precision of fit between castings, abutments and teeth. This also includes the handling of gypsums, casting, soldering, and the finishing process. With traditional casting techniques, the fit depends on how correctly the impression and master cast are produced because improper handling will distort the outcome and in some cases, there can be some significant conditions of tooth preparation that will not support an advantageous outcome. On the other hand, CAD/CAM dentistry necessitates an investment in costly, complex digital / optical scanners and computer software programs to correlate the enormous amount of information needed to manufacture custom

milled titanium abutments. For instance CAD/CAM technology that forms titanium abutments produced by implant manufacturers can provide dental health professionals and dental technologists with considerable benefits over custom metal abutments made with traditional casting technology. Implant manufacturers who produce stock abutments do away with the procedure of waxing, casting and finishing. Stock abutments are not cast and prevent miscasts, therefore dental laboratories do not have the extra costs associated with a failed casting. Pre-manufactured titanium abutments will provide an efficient cost effective solution for abutment fabrication that impacts all dental health professionals. Implant manufacturers produce a large number of stock titanium abutments in a variety of shapes, sizes and angulations that can be adjusted or modified manually, either by the dental technologist or in the clinical office. This wide range of choice means that the abutments can be adapted to the shape according to the position of the implant and the patient's individual anatomy; this includes poor angulation and limited inter-

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Bredent's SleepPlus Anti-Snoring Device

Quality of life can be significantly affected by chronic snoring. In fact, in 50% of all bedrooms restorative sleep is disturbed by extremely loud snoring with a volume of up to 90 decibels which is louder than many household appliances! With increasing age, more than half the population suffers from some sort of snoring problem. The statistics are quite surprising for an issue that is often not taken seriously enough. For example, 40 to 60 % suffer from simple snoring issues without breathing stops (primary snoring), however, 5 to 10 % suffer from pathological snoring with health risk implications due to airway obstruction (known as obstructive sleep apnea). Snoring not only causes noise annoyance or sleep disorders, but also may cause serious health risks such as hypertension, apoplexy or cardiac infarction.



SleepPlus

Bredent's **SleepPlus** is a Mandibular Advancing Device that is designed to combat sleep apnea syndrome and has been verified by several

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Customizing Titanium Abutments

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Use Breident's Protection Chamber to avoid the inhalation of harmful dust.



Use Renfert's Vortex 3L dust extraction unit for protection from dust.



The Breident Titanium Polishing Kit



Breident's new Rodeo Star Brushes!



Drink Tap Water and Avoid the Dentist's Drill!

occlusal space. In the case of retrievability, the abutment should also provide ease of orientation during transfer in and out of the patient's mouth and should have individualized resemblance of the prepared tooth form for the replaced tooth to provide optimal aesthetics, healing and emergence profile. Because of the inherent properties of titanium, it is best shaped and modified with titanium tungsten carbide cutters specifically designed for the application at hand. Breident has designed seven tungsten carbide burs for hand piece applications, utilizing a special diatit coating which prolongs the service life of the cutters. Breident has also designed a titanium polishing kit that utilizes four of the titanium tungsten cutters as well as rubber points wheels, polishing brushes for both hand piece and lathe, and two polishing compounds. Regardless of the dental restoration and its application; the titanium polishing kit has everything required to finish titanium for a multitude of requirements. The standard practice of most dental laboratories has been to use traditional tungsten carbide burs for practically all applications. However the process of shaping and polishing titanium is entirely unique. At 850° Celsius, titanium reacts with oxygen in the ambient air and forms undesirable characteristics in the surface quality of the metal such as discolouration, unacceptable polishing attributes and embrittlement. Due to the special diagonal cut (dentates) of the titanium carbides, a larger swarf-cutting volume is accomplished, so that the cuttings come off the blades more easily

and the friction is reduced. The special cut avoids overheating of the titanium caused by friction heat. Consequently this cut ensures efficient and careful removal of material and produces a smooth surface. For example the D194KT50 (Breident) was used to trim the abutment walls and create the gingival margins. Bur D198KT23 was used to refine the proximal walls and D001KT14 is used to refine the marginal area. Bur D194KT40 is used to reduce the occlusal height and prepare the incisal third of the titanium abutment. The surfaces were polished with the pre polishers 35000880 and the low shine titanium paste 52000154 with the Abraso-Soft metal brush. Final high shine was achieved using Abraso-Starglanz and high lustre lathe brush 35000830. Tungsten carbides from the Titanium polishing kit were used to prepare the stock abutment quickly and easily, creating the appropriate shape for the implant abutment. Now the abutment is ready for a modeling resin (Pi Ku Plast HP36 / Breident) that will be used for the framework after tapping the bridge for screw retention. Shaping and cutting is an easy process, since the titanium carbide cutters are especially produced for that function. The titanium tungsten carbides have a relief cut for the controlled penetration of the cutting edge into the metal. The cut produces smooth surfaces and is chatter free. The additional manufacturing process creates the relief in the blade and this supports the sharp cutting edge to avoid breakage of the edges. These burs

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Featured Product: Breident's Rodeo Star Brush

Breident's star brush Rodeo is a new addition to the existing star brushes. It is a standard stiff brush selected from tail hairs of wild horses which vary in hardness between the black hard and the soft white star brushes. Those familiar with the star brush know that the configuration contributes to 58 % more polishing power over

conventional brushes. The star brush requires less pressure, so brushes last longer since they contain more bristles, and provide about 90 % more service life. These Rodeo brushes are excellent for cleaning and polishing those hard to reach places. **For further information contact us at 1-800-250-5111.**

Drinking Tap Water May Help You Avoid Dentist's Drill

The concept of adding a fluoride compound to water in order to help prevent tooth decay is not new, but it is always reassuring to see supporting evidence. According to a study authored by C.H. Chu, BDS, PhD, MAGD, which was published in the Jan./Feb 2010 issue of General Dentistry, a journal produced by the Academy of General Dentistry, it was found that "Fluoride makes the entire tooth structure more resistant to decay and promotes remineralization, which aids in repairing early

decay before damage is even visible; studies have confirmed the most effective source of fluoride to be water fluoridation." Dr. Chu looked at the effectiveness of fluoride in specialty milk and salt products, toothpaste, mouth rinse and gum but learned that only water fluoridation or fluoride applied as a "varnish" in the dentist's office were effective in reducing cavities by more than 30 percent. Nice to know that something as simple as drinking a glass of water can help avoid the dreaded drill!

Customizing Titanium Abutments

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Titanium finishing using cutters, polishers, brushes and pastes, specifically for titanium.



Cutter D194KT50 grinds exceptionally abrasively yet provides smooth surfaces.



Narrow and difficult areas are approached with cutter D198KT23.



Fine areas are refined with cutter D001KT14 with minimal pressure.



Prepolishers are matched to titanium and create smooth surfaces.



Round goat hair brushes 35000540 and Titapol are used to prepolish the abutments.



High lustre brush 35000650 has 50 layers and ensures perfect high shine.



The Morse taper provides a self-locking effect that prevents loosening.

also feature a wear protection coating called Diatit. This special material is sintered into the surface, after the bur has been produced. It hardens the bur surface and reduces surface tension. This hardening process penetrates into the spaces between the molecules to a depth of 100 microns. This sintering of the surface increase the Vickers Hardness to 3700 HV compared to conventional tungsten carbides at 1850 HV. This results in a service life three times longer and an ability to cut titanium easily and efficiently. In any event, when finishing any type of metal or alloys, adequate ventilation is important to prevent silicosis. The Vortex vacuum system (Renfert) is equipped to handle large volume with a very low decibel rating. Also recommended is proper eye protection such as a protection chamber (Bredent) or safety glasses. Grinding and shaping metals requires a firm grip on the hand piece which can create fatigue in the hand muscles and also the wrist. That is why it is important to use the appropriate tungsten carbide cutters that will reduce the exposure to these ailments. Bredent's Titanium Polishing Kit represents a more sophisticated approach than the standard tungsten carbides. The relief cut and the sintered diatit coating are more

effective, chatter free and last three times as long as conventional burs. Utilizing the titanium polishing kit and their tungsten carbide cutters in your practice will help reduce wrist and hand fatigue and will increase the productivity of the individual while the titanium abutments are shaped and polished.

Source; Peter T. Pontsa, RDT

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- NOTE: The publication of these pictures were courtesy of Peter T. Pontsa, RDT**



The universal screw driver places the 1.4 titanium screw.



The completed framework is ready for porcelain and can be retrieved at any time.

1170 Concession 4,
Adjala, R.R. # 1
Loretto, Ontario,
LOG 1L0

PHONE:
1-800-250-5111
Or
519-942-9315

FAX:
519-942-8150

EMAIL:
Info@dent-line.com

We're on the Web!
See us at:
www.dent-line.com

About Our Organization...

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Bredent's SleepPlus Anti-Snoring Device

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studies. The individually designed intraoral advancement device (MAD) **SleepPlus** keeps the lower jaw toward the median line at night and thus prevents snoring and it reduces disrupted breathing significantly. The system co-ordinates telescopic rails, mandibular rest fixation and frontal and lateral bite elevation to create a co-ordinated therapeutic device. The mandibular advancing device keeps the pharynx open at night and tones the muscles so that the respiratory passage remains open. This prevents snoring and sleep apnea. The new device recently developed by Bredent called **SleepPlus** provides more options than were previously available with conventional prothesis. Conventional devices are incorporated buccally and frequently cause injuries to the oral mucosa. Rigid constructions constrict the natural movements of the mouth to such an extent that the patient abandons all use of the device. The SleepPlus was designed with the aim of providing the patient with comfort and was co-developed by

a dentist and a master of dental technology. This advanced development of the already known mandibular advancement device offers excellent lateral and vertical mobility due to telescopic ball and socket joints. Since the telescopic rails of the mandibular advancement device SleepPlus are occlusally integrated, the buccal mucosa will not become irritated. A temporomandibular joint support which is modeled into the synthetic material provides additional muscular relief during sleep. This treatment concept has been proven for several years and has shown a high acceptance rate among patients in Germany.



Trade Show News: Upcoming Events

ADTO Fellowship award was presented to Peter T. Pontsa RDT by Gabriel Gazel ADTO president on April 10th at a cocktail reception that followed Technorama. He was recognized for his outstanding contributions to the profession of Dental Technology in Ontario. Peter feels very honoured to have been recognized by his peers in this way and was thrilled to receive such a prestigious award. Also ten new RDT registrants were also awarded the ADTO membership certificate by the ADTO Board. It was a pleasant and delightful afternoon with friends and colleagues alike participating in this event. Peter would also like to extend his congratulations to the new RDT's and wishes them great success!

Pictured right are the new RDT registrants who were awarded their ADTO membership.



This past April 10th, Peter T. Pontsa, RDT, President of Dent-Line of Canada was awarded the ADTO Fellowship Award.

Announcements: Upcoming Trade Shows

The Denturist Association of Ontario invites you to participate at the **Perfecting Your Practice Conference** to be held September 23rd to the 25th at the Hilton Niagara Falls Fallsview in Niagara Falls, Ontario, Canada. This years conference theme is – Your Business, Your Future. For more information call 1-905-677-0440 or info@denturistassociation.ca

The **Denttechnica Dental Trade Show** will be held October 2nd and 3rd at the Montagne Hotel, 1228 rue Nobel, Boucherville, Quebec. There will be a block of rooms set aside for participants. To reserve, contact the hotel at 1-877-655-9966. Join us at the Dent-Line of Canada booth to see our new and innovative products.

"We Can't Always Be Serious Corner":

A man walks into the dentist's office and after the dentist examines him, he says, "that tooth has to come out. I'm going to give you a shot of Novocain and I'll be back in a few minutes." The man grabs the dentist's arm, "no way. I hate needles I'm not having any shot!" So the dentist says, "okay, we'll have to go with the gas." The man replies, "absolutely not. It makes me very sick for a couple of days. I'm not having gas."

So the dentist steps out and comes back with a glass of water, "here," he says. "Take this pill." The man asks "What is it?" The doc replies, "Viagra." The man looks surprised, "will that kill the pain?" he asks. "No," replies the dentist, "but it will give you something to hang on to while I pull your tooth!"

Source: Dental Jokes