

*A Bulletin Dealing With Issues For Dental Health Professionals*

## Predictable Retention With Exchangeable Studs



Peter T. Pontsa, RDT is president of Dent-Line of Canada Inc. with over 37 years of experience in the dental profession as a laboratory owner and a technician. 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. He is also a past president of the College of Dental Technologists of Ontario. Currently he is a member of the Ontario Study Club for Osseointegration.

The success of attachment borne removable restorations not only depends on the restorative team members but also on the type of attachments selected. The majority of precision attachments fail over time because the systems are flawed from the on set. Numerous manufacturers have tried to address the retention factor and how to maintain enough of it over the life of the restoration. Studies have indicated that intracoronal attachments fail mainly because metal to metal components wear out and reactivation is unpredictable. Some of the extracoronal attachment elements can be replaced and glued into their prospective components, but are expensive to maintain in the long run. So how do we extend the retention and also prolong the restorations longevity? The plastic to metal attachment has had appreciable positive results over the last twenty years. The female retention element is normally made of plastic and has many levels of retention ensuring that more retention is also available. Bredent, after many years of research and development

has developed a new range of retentive elements with up to ten levels of hold. If on the other hand there are concerns about the integrity of the male counter part, the advent of the exchangeable stud will address that issue. The VKS-SG and OC attachments are available in an exchangeable stud, which will extend the restoration's life indefinitely. The exchangeable stud can be replaced intra orally when the plastic retention sequence is exhausted. It is relatively simple for both technical and clinical procedures. In the laboratory the titanium stud and the gold housing are waxed into the crown abutment, root cap or implant bar over denture and are finished to the standards of practice. Recently a titanium preformed bar was introduced that would accept four exchangeable titanium studs. The greatest value in the exchangeable stud is, that should it wear out, the retention can be re-established by removing the worn stud and replacing it with a newly manufactured one. Then the interchangeable retention sleeves can begin to provide a renewed **continued on page 2**

### Special Interest Articles:

- Predictable Retention With Exchangeable Studs
- Provisional Technology For The Dentist
- Attachment Service and Relining 4

### Individual Highlights:

- Bredent's Multisil Mask 2
- Leach & Dillon Cerpress SL Ringles 2
- Trade News 4
- Announcements 4

## Provisional Technology For The Dentist

The technique and materials under taken in this case study present to dentists and dental technologists a way to deliver to patients a superior temporary restoration that will satisfy everyone's objectives. Even though it is transitory, a provisional restoration should satisfy many needs for the patient, dentist and dental technologist. For the patient these requirements comprise of function, phonetics and aesthetics. For the dentists the temporary or provisional restoration should provide safety of the prepared teeth and permit appropriate healing of the soft tissue while the final restoration is constructed. In the case of the dental technologist he or she should save the dentist valuable chair side time by selecting the appropriate material

and providing a completed provisional that should have the proper colour match and is ready to cement. These days there are all types of materials being offered to produce temporary restorations. Traditionally methyl methacrylates have been used for years. Bredent's (bredent) best physical properties are that shrinkage is avoided because there are no fillers and it is very colour stable. It also exhibits high elasticity and a significant resistance to fracture. For optimum results this material should be prepared and finished in the dental laboratory, especially for anterior veneer temporaries which require more control because of how thin they are. Initially an alginate impression is taken and **continued on page 3**

Predictable Retention cont'd ...

Continued from page 2

retention level. The exchangeable studs are available in 2.2 mm and 1.7 mm diameters and will accept either the SG or OC style retention elements. A recent development in the area of attachments has seen the emergence of a few implant companies who are providing CAD/CAM milled titanium implant bars. A serious assessment would indicate that the process will be expensive and will not appeal to everyone and also the turn around time will be ten to fourteen days. An alternative option may very well be the pre-manufactured titanium bar which significantly reduces the time to wax one up or out source it. The titanium bar is tapped

to accept four exchangeable studs. The bar is 50 mm long, 5 mm high and 2 mm thick and can be sectioned to fit between manufactured titanium implant abutments supplied by the major implant companies. The preferred method is to laser weld the sections into position before threading in the exchangeable stud. Then the case can be finished with a super structure in the metal of your choice which will house the retention inserts within the finished over denture. In this way, time to completion, restorative expenses and the longevity of the restoration can be predicted and related to the patient. **Source; Peter T. Pontsa RDT can be reached at [info@dent-line.com](mailto:info@dent-line.com)**



Bredent's exchangeable studs are available in both 2.2 mm & 1.7 mm



This titanium preformed bar can accept up to four exchangeable titanium studs.



Featured Products ; Bredent's Multisil Mask Soft

When using the gingival mask on the model, over contouring of the crown surfaces can be avoided. Therefore crowns can be shaped naturally so that the gingival emergence is ensured. Ideal for the fabrication of implants, Multisil-Mask is quick and easy to use, because of the cartridge dosing system. The great dimensional stability and high tensile strength allows it to be removed and repositioned as often as desired. The light pink colour of Multisil-Mask matches

the natural gingival so that reproducing the true shades of ceramics and composites is easier. The material reproduces periodontal contours and inter dental spaces in such detail that it allows optimum finishing of restorations. Available in an assortment kit consisting of 2 x 50 ml. cartridges, 24 mixing cannulas and 10 ml. of insulating liquid. For additional information contact the **Dent-line of Canada order desk at 1-800-250-5111**



Bredent's Multisil Mask Soft.

Cerpress SL- Ringless System for Pressible Ceramics

The Cerpress SL Pressing Ring is a patented paperless ring system for use with all pressible ceramics. These 100 and 200 gram rings are made from the same clear plastic material as our traditional ringless system for casting alloys. The height and volume dimensions have been specifically

designed to fit all current pressing furnaces. The ring system is an investment in peace of mind. Some of the benefits are, that it virtually eliminates investment cracking while increasing the grain strength of the investment. It eliminates taping (inside and out) **Call Dent-line at 1-800-250-5111**

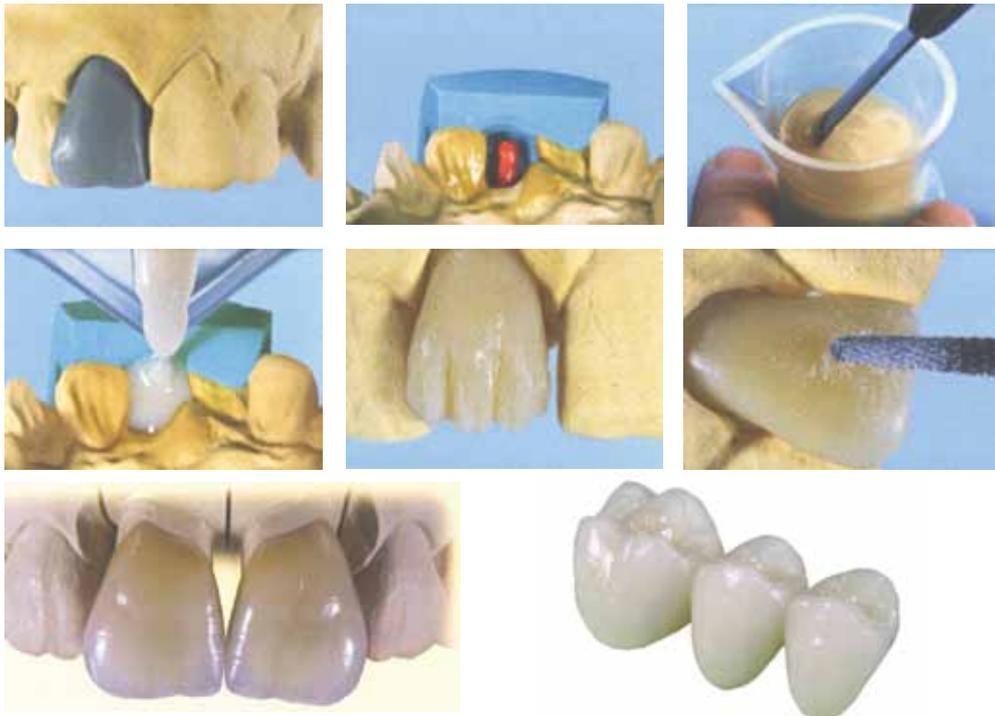


Cerpress-SL; available in either a 100 gram or 200 gram size.

Provisional Technology for the Dentist, cont'd...

sent to the dental lab. After being modified with wax to provide aesthetics a silicone putty matrix is taken ( bredent exaktosil) The tooth is prepared and is then sealed and separated with model separating liquid (bredent Isoplast). The cold cure material is mixed (bredent Breformance) and poured into the back of the model and matrix. Working time is 3 to 5 minutes and polymerization is 10 minutes. Faster and bubble free curing can be carried out in a pressure pot at 45 to 60 lbs., water temperature at 40 c for 5 minutes. Since breformance has five dentines, two cervical, two enamels, and one transparent material, many custom shades can be achieved. If the material is built up using several polymerization steps grinding and wetting the surface with breformance liquid is required before adding additional material. Ceramic

stain powders mixed with the enamel or transparent material have provided special effects when individualizing restorations. Grinding and polishing can be performed with tungsten carbides and polishing brushes before delivery to the dentist. The transitory process of provisional technology can eliminate adverse tooth sensation while attaining exceptional fit and seal of the margin. Ideally the temporary should be designed and fabricated to preserve the proper tooth position and by maintaining exact occlusal and interproximal contacts. This forethought will ensure predictable seating and fit of the final restoration, that will require little or minimal adjustments. When they are produced properly, they play a major role in the protection of gingival health and contour. **Source Peter T. Pontsa RDT.**



*The proper fabrication of an aesthetic temporary restoration provides protection for the prepared teeth, allows for the proper healing and health of the soft tissue, ensures normal function and speech during the fabrication of the final restoration.*

*Finally and most importantly, it provides the patient with natural appearing teeth.*

**Source; Peter T. Pontsa, RDT**

Bredent's Breformance Tooth Acrylics

Breformance from Bredent is a cold curing crown and bridge material ideal for temporary crowns and bridges. The material has been matched to the requirements of dentists dental laboratories and even denturists. It is a self curing filler free acrylate based resin. The processing is simple, with superior mouldability and high resistance to fracture because of its elasticity. Breformance is

available in six colour stable vita shades. Indications are for long and short term restorations, which include extra oral repairs. It can be used for fixation of ground acrylic denture teeth on cast partials or for covering attachments in combination cases. **For further particulars, contact Dent-Line at 1-800-250-5111**



## dent-line of canada

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

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

FAX:  
519-942-8150

EMAL:  
Info@dent-line.com

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

### About Our Organization...

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## Attachment Service and Relining

Always initially disinfect the prosthesis and thoroughly clean in the ultrasonic cleaner prior to any servicing. Prior to taking the reline impression, thoroughly lubricate the female retention element with petroleum jelly or silicone lubricant to ensure any excess impression material is readily expressed and cleaned from the attachment. Accurate impression recordings are more obtainable as the positive stop of the attachment male and the retention element provides accuracy in a vertical relationship. This prevents over closure or tissue compression. After the impression material has set, remove the prosthesis. Clean any impression material from the female element and place a transfer analogue into the impression where the male part has been duplicated. Pour the master

reline model. When the prosthesis is separated from the model the metal transfer analogue will remain in the cast. Then complete the rebase technique taking care to apply lab putty around critical areas prior to acrylic processing. This will allow excess acrylic resin to be easily removed avoiding locking the prosthesis to the model. If afterwards you observe premature attachment wear look at the following causes; Patient is "biting" the prosthesis into position. Failure to align the attachments will cause wear. Patient has tissue atrophy and requires a reline. The frame or connector is bent or distorted and causes "rocking" effecting attachment wear. Patient bruxes, bites nut shells, or chews gum, or mints which also effect wear. **Source Peter T Pontsa RDT**

### Special Announcement:

Mr. Peter T. Pontsa, RDT, President of Dent-Line of Canada Inc., and Mr. Kevin Dillon Sr., President of Leach & Dillon Products are pleased to announce that Dent-Line of Canada Inc. has secured the exclusive distribution of all Leach & Dillon products for all of Canada. For a catalogue or more information, you can contact Dent-Line of Canada at 1-800-250-5111 or Leach & Dillon Products at 1-800-535-2633. This agreement is the result of the success Dent-Line of Canada Inc. has had in representing the Enigma product line over the last two years.



### Trade News:

Dent-line of Canada and Dillon Co., would like to thank Gina Lampracos and Bob Gaspar for inviting us to visit George Brown College and provide the third year Denturism Program student's with a Gingival Colour Tone Seminar. Peter T. Pontsa RDT presented a Powerpoint program and afterwards provided a hands on demonstration of layering the colour tones. Many students also participated in the hands on portion.



### Upcoming Events:

The **International Dental Show 2005** in Cologne Germany from April 12th to the 16th. DIAC will host **Technorama 2005 at the Double Tree International Plaza Hotel from April 29th to the 30th**. Dent-line will sponsor a seminar entitled "Removable Partial Dentures; Design Protocols for Function and Aesthetics" presented by Peter T. Pontsa RDT. **The Denturist Association of Ontario** will be hosting **Perfecting Your Practice**

**Conference** at the University of Guelph, June 2nd, 3rd and 4th. Dent-Line will participate at the Bronze Sponsorship Level and will provide a seminar called "Aesthetic Dentures; Options for a Successful Practice" which will take place Friday 3rd from 9:00 am to 10:30 am. The seminar will be presented by Peter T. Pontsa, RDT who is president and technical director of Dent-Line of Canada Inc.