

The Dent-Liner™

A Bulletin Dealing With Issues For Dental Health Professionals

Implant Supported Prosthesis Using the Vario Soft VSS



Peter T. Pontsa, RDT has over 39 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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The majority of edentulous patients with complete dentures are not satisfied with the amount of retentive stability provided by their prosthesis. The onset of a quickly deteriorated alveolar ridge is the obvious contributor of the instability. Vertical bone in the edentulous mandible deteriorates at an average annual rate of 1 to 3 mm. In about four to five years this becomes a substantial amount of residual bone loss. The implant supported prosthesis is an alternative to the conventional removable denture. Merickse and Stern concluded that the retention stability and occlusal equilibration of dentures improved slightly by increasing the number of implants by at least more than two. A review of their literature indicates that implants placed in the anterior mandible have a success rate of better than 95% and also these patients have reported a high degree of satisfaction with the implant supported overdenture. Medically compromised patients may require treatment with implant prosthesis to help improve masticatory function and to achieve a better nutritional balance. Quiryman recommended splinting implants that are less than 13 mm long for improved retention in resorbed jaws. Traditional mandibular overdenture supported by two or four implants and connected abutments have shown high success rates with significant improvement in patient comfort and function. Depending on the shape of the residual ridge, the denture may be unstable or inadequately retained, leaving the patient dissatisfied with the functional result. The rate of residual ridge resorption in edentulous patients who do not have tooth replacement is high. The resorption can render the current prosthesis inadequate in terms of both function and aesthetics and can lead to the necessity of fabricating a new denture. Over time, occlusion, aesthetics and function may be compromised. Today's patients have high expectations for oral health; providing a traditional denture that eventually becomes an ill fitting prosthesis does not help meet these

expectations. The implant supported denture is one solution to these problems. Implant placement surgery is relatively simple to perform and in experienced hands, may take less than an hour to accomplish. Splinting of the implants may be beneficial where implants have less than ideal angulation. Splinting of the implants also can be advantageous in clinical scenarios of mal-positioned implants, where implants encroach on the contours of the overdenture. In these situations, fabrication of the bar allows for the relocation of the attachment system into the largest area of the overdenture. Fracture of the prosthesis is a rare, but potentially critical complication which can occur with implant retained overdentures. Usually a metal housing or sub-cast metal reinforcing framework to house the retentive sleeve will counteract this problem. Bars connecting implants should be ridged to prevent bending and shear forces created from the denture. Vertical forces transmitted through the long axis of the implant are desirable whereas horizontal loads will be destructive to the implants. When fixtures are connected with accurate fit and sufficient rigidity, the forces are equally distributed. Otherwise certain units or those which are closet to the load will bear the majority of the forces. Prosthodontic maintenance and patient satisfaction differ depending on the individual attachment system which potentially is of more importance than the splinting to the implants. For example, attachments that have low retentive strength negatively affect patient satisfaction. Some attachments have a high rate of mechanical failure, which requires continuous investment of time and maintenance cost. Based on this information, it is evident that the choice of the individual attachment system is of critical significance. Consideration of the intraoral space available and vertical requirements in choosing the correct attachment system is important.

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Bredent's Reinforcing Mesh

Featured Product: Bredent's Reinforcing Mesh

Bredent's reinforcing mesh for dentures has high strength for increased stability of the denture and a reduced fracture risk of the acrylic resin; even if breaks or splits occur in the acrylic. The denture stays in position without separating, making repairs of the fracture much easier to perform. Available only in 0.4 mm thickness in packages of five. Stainless steel or gold plated type in 99.7 %. The numerous round perforations provide

excellent resin bond to ensure a strong stabilized denture base. The mesh is also available in 100 x 500 mm single sheets of fine gold. The gold mesh is almost invisible in the denture acrylic. When the fractured denture must be reinforced, quick integration of the wire reinforcing mesh will improve stability. **For further information, contact us at 1-800-250-5111.**

Featured Product; Bredent's New Seracoll UV



Bredent's Seracoll UV

Seracoll UV is a light curing adhesive for joining waxed bridges, implant bars, light curing waxes, brush-on resins, copy milling and controlled fixation of retention beads or crystals. Seracoll UV complements modelling waxes and supports the Bredent Casting Technique. The UV material has a low viscosity, can be easily applied into a thin gap and wets the entire surface which creates a reliable bond. The composition is similar to

resin, is distortion free, stable, highly accurate and the result is reliable stress free joints. Seracoll UV is versatile and can be used in many applications and it can be hardened with all dental polymerization units which allows the use of your existing equipment. The UV wave light is 270 to 580 Nm and depending on the unit can be cured in 10 seconds.

For more information on Seracoll UV (order



Bredent's MagicContrast Brushes

Featured Product; Bredent's New Magic Contrast Brushes

Recently, we have seen excellent innovations in brush hair design for ceramics. None is more exciting than Bredent's new MagicContrast ceramic brushes. The MagicContrast is extremely elastic and springs back to a sharp tip immediately after picking up the ceramic material. The bristles ensure the correct water conservation and retention for porcelain work via their good retention properties. These brushes are unique because they are hand made in Germany. They consist of top quality black artificial hair that exhibits a higher flexibility and stability over conventional types. The special bundling of hair creates a bell shaped design at the base and a taper at the tip. The shape contributes to improved storage of liquid and allows the tip to take up small

quantities as required for layering of ceramics. The new hair enables the user to obtain a spatula shape by pressing the hair together enabling a larger quantity to be picked up. Because of the black synthetic hair there is a distinct contrast between the porcelain and the brush tip which allows a better assessment of quantities to help reduce waste of the porcelain. This contrast also helps reduce eye fatigue for the technician since it is easier to see the porcelain material. MagicContrast brushes are available in sizes 1, 2, 4, 6 and 8. They are also available in the "Big Brush" size and the "00" opaquer brush. An introductory set consisting of sizes 4, 6 and 8 is an ideal way to try out this exciting new brush system. **Call us today for further details at 1-800-250-5111.**

Featured Product; Bredent's New Diephos Dentine UV



Bredent's Diephos Dentine UV

Bredent's Diephos Dentine UV Die Spacer is suitable for all ceramic applications such as inlays, onlays, veneers and full pressible or zirconium crowns. The neutral colour eliminates negative effects on the visual perception of the aesthetic appearance of the ceramic restoration. The double application of 12 microns produces a controllable glue gap, which protects the surface, is resistant to abrasion and steam. The integrated brush in the lid allows quick application and avoids the use of disposable brushes. Whenever a bright

coloured die spacer is used, such as blue or red, the bright colour of the varnish may shine through the inlay or the veneer affecting accurate shade matching. Even if no die spacer is used, the colour of the plaster may also shine through. By using the tooth coloured Diephos Dentine instead of traditional die spacers, this problem is eliminated, allowing an accurate shade match with the patient's dentition.

Call for more information on the Diephos Dentine UV (order no. 54000100) at 1-800-

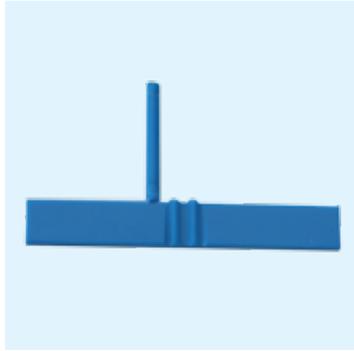
Implant Supported Prosthesis Using the Vario Soft VSS cont'd...



The Vario Soft Assortment contains 2 bars, 6 attachments and one insertion pin.



VSS attachments have three levels of retention; green (light), yellow (medium) and red (high).



The special plastic bar has 2° tapered sides, is perfect for implants and burns out cleanly.



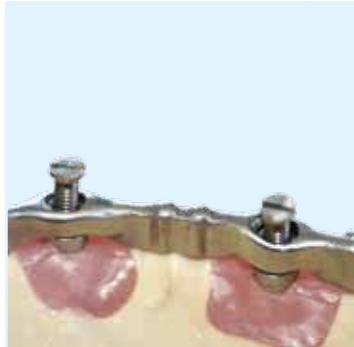
The insertion pin makes placing the retention sleeves much easier.



Implants provide the best possible stability, comfort and long-term function.



The bar can be easily removed by the clinician for cleaning or inspection.



The bar has been screwed down to provide easy adjustments while providing large contact areas.



The VS Bar can be adapted to the gingival tissue to promote good dental hygiene.

Studies indicate that most complications and prosthodontic maintenance are related to the attachment components of the overdenture. Most common problems include degradation of the retention of the attachment sleeve over time, mechanical failure of the sleeve and retentive abutment (male part) dislodgement of the sleeve from the overdenture and fracture of the overlying denture base resin. Based on these problems the most desirable characteristics of a well designed attachment system should include good retentive strength and longevity of the retentive components over time, ease of component replacement, adequate retention of the attachment sleeve in the denture and minimal dimensional requirements for the structural integrity of the overdenture. Even though there is a lot of information available on clinical performance of the attachments, the selection of the appropriate attachment system is not an easy task because of the large number of available options and continuous introduction of new designs to our profession. Although there are no extensive studies on clinical performance, the author believes that the Vario Soft VSS design satisfies all previously mentioned requirements. Plastic clips or sleeves are more advantageous than metal ones since they can be more easily replaced

and are usually less expensive than the metal ones. The VSS attachment from Bredent is a friction style anchoring mechanism comprised of a smooth parallel bar matrix with two degree tapered sides and a double matrix (cylindrical) retentive abutment. It has been designed for implant bars to accommodate overdenture and combination cases. The plastic bar can be reduced up to 50% in order to fit cases with low vertical dimension. The special resin will not distort and will burn out cleanly without residue. There are three levels of predictable, reliable retention which can be modified for the patient and can be comfortable while being extremely secure. The design feature is ideal for patients with arthritis or other manual dexterity limitations since it is a friction grip rather than snap type which would require a more forceful insertion. The large contact areas between the male and female retention elements improve stability and there is less susceptible direct wear on the male abutment. In the case featured in this article, the mandibular denture tooth set up was completed against the maxillary denture tooth set up. The wax trial dentures were returned to the clinic for the try-in. The fit, occlusion and aesthetics of the prosthesis were verified intraorally and approved by the

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Gingival view of the denture showing the over casting and the light retention.



Completed lower denture providing function as well as aesthetics.

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Implant Supported Prosthesis Using the Vario Soft VSS cont'd...

patient. Afterward, the desired occlusal scheme was verified and then adjusted intraorally at which time the patient received maintenance instructions and the recall appointment schedule was established. Jacobs concluded that a more stable occlusion provides a better distribution of occlusal forces and protects the maxillary anterior edentulous ridge. The result is an implant supported denture that has good stability and retention and those patients who have received this type of restoration have reported improved function and satisfaction. Clinicians and dental technicians have to adhere to sound design principles such as longevity, simplicity in fabrication, ease of maintenance, repair, user-friendliness for the patient and cost control.

Source; Peter T. Pontsa, RDT

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Special Announcement: Grey Market Sales in Canada

On November 9, 2007 a Grey Market Panel was sponsored by the Ontario Chapter of the American College of Dentists to discuss dental materials and how trust in these materials has been eroded in recent years because of illegal or counterfeit materials on the market.

Dr. Cal Torneck, immediate past president of the American College of Dentists, Ontario Chapter, introduced the panelists and Dr. John O'Keefe, editor-in-chief of the Journal of the Canadian Dental Association moderated the discussion. The expert panel consisted of **Mr. Bernie Teitelbaum**, the Executive Director of DIAC, **Dr. Paul Santerre** who is an associate dean of research at the University of Toronto and a world-renowned researcher in the field of composite materials and **Dr. Arthur Conn**, a dental advisor with the Medical Devices Bureau of the Health Products and Food Branch of Health Canada. The discussion was exceptional because of the

grouping of scientific, regulatory and business opinion on the concerns regarding "grey market" sales in Canada. The discussions exposed the risks taken by dental health professionals who may be purchasing illegal or counterfeit materials and the steps they can take to make certain that their patients obtain superlative health care from licensed materials supplied by distributors that are certified by Health Canada. Dr. O'Keefe was given permission to produce an audio recording of the clinic's highlights which are available on the Journal's web site. Visit http://www.cda-adc.ca/en/cda/news_events/media/dentistry_news/2008/02_21_08.asp to understand the full implications of grey market sales on our profession. DIAC members are encouraged to add this link to their web site. To become a DIAC member email Mr. Bernie Teitelbaum at bernie.diac@sympatico.ca.

Special Birthday Announcement: We're seventeen!

We are delighted to announce 17 years in business as of March 19th of this year. During the last 17 years we have provided name brand quality products and service without compromise. Peter, Angela and our dedicated

staff would like to take this opportunity to thank our many customers who have supported our company and our manufacturers over all these years. Thank you everyone!

Trade Show News: Upcoming Events

Bredent Attachment Courses:

Located at XP-Dent in Miami, Florida. The courses are provided by Charlie Rivas, CDT and will be held on the following dates:

Introductory Course on Attachments

Friday May 16th, 2008;

PRICE: \$395.00 USD

Advanced Attachment and Implant Bar Course

Friday June 6th, 2008;

PRICE: \$595.00 USD

Overcasting Course

Thursday and Friday July 17-18th, 2008;

PRICE: \$695.00 (1 1/2 day course)

Don't miss this opportunity to improve your knowledge of attachments and enjoy sunny Florida at the same time!

For further information contact Mr. Charlie Rivas at XP-Dent at 1-877-329-3965 or email him at crivas@xpdent.com.