



The Dent-Liner®

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Telescopic Implant Overdentures; *Utilizing the Friction Fit System.*

The telescopic crown also known as the German crown was developed in Germany and is even now one of the most used dental procedures by dental health professionals to construct removable dentures. Ironically 99% of the telescopic dentures worldwide are still made in Germany.

Telescopic crowns were initially introduced as retainers for removable partial dentures (RPD's) at the beginning of the 20th century. They are also known as a double crown, crown and sleeve or as *Konuskrone*, a German term that describes a cone shaped design.

These crowns consist of an inner or primary telescopic crown, rigidly connected to a detachable prosthesis. The secondary crown engages the primary coping to

form a telescopic unit and serves as an anchor for the remainder of the dentition. A telescopic prosthesis is a more versatile alternative because the appliance can be repaired without reconstruction of the entire super structure despite a localized failure. The patient disengages the telescopic restoration with removal of the outer telescopic appliance from the abutments or bar.

Special technical skills and experiences are required to fabricate a telescopic crown to provide adequate retention with precise frictional retention (conus friction force) between coping, abutment or bar and the telescopic super structure.

A study called "New Telescopic Crown Design for Removable Partial Dentures" published by Minagi S, Natsuaki N, Nishigawa G, Sato T. had results that indicated that retention gradually diminished depending on the insertion/separation cycles. Thus they concluded that a telescopic crown with its reduced retention could be readjusted, although it was not mentioned in their study how this was accomplished.

We do know, however for a fact that FPG friction fit system is capable of reestablishing positive friction equal to if not superior to the initial retention level. Telescopic type prosthesis can give a more favorable axial force load and they can provide the best over denture stability.



Bredent's Friction Fit System

The advantage of such systems is that they need less correction and interventions after the completion of work. Two or four implants with a telescopic framework over denture should be an optimal protocol for the edentulous mandible; the telescopic type appliance will be supported not only by the patient's gums but also by the roots, abutments or bars.

Another study named "Prosthetics; the Physical Mechanisms of Complete Denture Retention" by B.W. Darvell and R.K.F. Clark discusses factors which are relevant to complete denture retention. The researchers mentioned atmospheric pressure, vacuum, adhesion, surface tension, cohesion, base adaption, border seal seating force and muscular control as being contributory factors to denture retention. However whenever a telescopic appliance is recommended in the treatment plan these factors become less important because of the mechanical design of the telescopic appliance.

The FPG friction grip system provides an absolutely tension free fit and offers the dental health professional entirely new options for the preparation and restoration of telescopic appliances and metal to metal restorations. The long service life and the simple time saving processing render the friction fit system a comfortable solution for the patient.

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Micrylium's Unique Approach to the Keeping our Environment Safe!

Dental health professionals take a serious attitude toward infection control; in fact, it is mandatory for dental professionals to observe this due to legislation, such as compulsory daily spore testing for dentists and denturists. The contact between patients and dental professionals is frequent and the potential for transmission of diseases very great. The circle of infection can be successfully broken with proper education and compliance.

A day to day environment that involves the interaction with dozens of patients and impressions increases the risk of contracting infectious diseases. Serious attention to procedures, standards of practice of the appropriate barrier, sterilization, and disinfection techniques has reduced this risk for conscientious clinics and laboratories in recent years.

In today's age, it is socially and ethically responsible and imperative that we find safer and gentler alternatives to the disinfectants currently on the market. Micrylium products do not have any NPE's

(Nonyl Phenol Ethoxylates) which have been shown to mimic hormonal structure and function by blocking important reception sites in cells. These types of infection control chemicals are highly toxic and are banned by all European countries. Micrylium has made it their top priority to avoid all aldehyde products (Glutaraldehyde).

They also have determined that hospital disinfection can be attained in less time with ethanol based formulations. Newly developed totally biodegradable surfactants provide maximum surface wetting and cleaning while enhancing the activity of the antimicrobial agent selected. Interestingly, of the several thousand chemistries available from the major multinational chemical companies, over 90% of the surfactants were not readily biodegradable.

Fortunately, Micrylium utilizes safe vapour suppressing agents, which are extremely necessary in order to reduce the evaporation of ethanol, *thus making*

these solutions more effective and entirely noncarcinogenic.

As an integral part of Micrylium's constitution, any chemical suspected of being a hormone disrupting compound is forbidden from being used in product formulation. **The Micrylium products are all toxic free and environmentally friendly and are approved by Health Canada.** For more details on this product line contact us at 1-800-250-5111

BioMERS!

Immerse items for just 1 minute!
A cold bath that cleans and disinfects your instruments.
APPLICATION: Use at Full Strength; Solution is effective up to two weeks.



BioText!

A Universal Disinfectant which cleans: metal, glass, plastic surfaces, naughahyde, vinyl, clothing, carpets, painted surfaces, telephones, and keyboards. .
APPLICATION: Use Full Strength, Spray, Wait 5 Minutes & Wipe!



Product Show Case: Bredent's FGP Friction Grip System

FGP friction grip system has an absolutely tension free fit and offers the dental health professional entirely new options for the preparation and restoration of telescopic appliances and metal to metal restorations. The long service life and the simple time-saving processing render the friction fit system a comfortable solution for the patient. The advantages have contributed to more than 50,000 cases allowing soft integration and removal of the denture. The principle of FGP resin is that the metal on metal telescopic cases will now be replaced by a metal on resin fit. The metal on resin fit offers considerably more co-efficient of friction than one of pure metal. Consequently, increased resistance to wear and an extended service life are obtained.

Advantages:

- ✓ Save time due to fast and simple preparation.
- ✓ No fitting of secondary elements.
- ✓ Long service life.
- ✓ Maximum comfort for patients.
- ✓ Allows low-cost single piece casting.
- ✓ Can be processed in the mouth.



Bredent's Friction Fit System Kit: Order No. 54001028
Contains: 1 x 2.5 g friction resin component A, 1 x 2.5 g friction resin component B, 1 x 2.5 ml FGP bonding agent, 1 x 3.0 ml FGP insulating agent, 1 spatula, 5 brushes, 1 brush holder

For more details on the Friction Fit System visit:



Telescopic Implant Overdentures; Utilizing the Friction Fit System. ...cont'd



The case is using 4 Nobel Snappy Abutments to support the denture.



The abutments are dipped in wax to create a 2mm space between the abutments and casting.



The cast frame work is mounted to evaluate space before placement of teeth.

These advantages have contributed to more than 50,000 cases allowing soft integration and removal of the denture. The principle of FGP Resin is that the metal on metal telescopic cases will now be replaced by a metal

resin fit. The metal on resin fit offers considerably more co-efficient of friction than one of pure metal. Consequently, increased resistance to wear and an extended service life are obtained.

Some clear advantages to the FPG System are the opportunity to save time due to fast and simple preparation and the fact that no fitting of secondary elements is required. A long service life, maximum comfort for patients, are also beneficial. The System also allows for low-cost single piece casting and can be processed in the mouth, thus reducing time chairside.

A study called "Application of Implant Supported Telescopic Overdenture in Edentulous Cases" presented by Hu X.L., Cui H.Y., Wang T, Li J.H., Qiu L.X., Lin Y., elected to evaluate clinical results of implant supported telescopic overdentures. It was found that this type of restoration could provide sufficient stability and maintain peri-implant hygiene easily. Perio-implantitis and prosthetic complications were not observed and the marginal bone around implants was stable. No implant was lost during the loading time. Their conclusion on this research showed that implant supported telescopic overdentures offered a predictable and beneficial outcome for edentulous patients.

Another study after a 10 year follow-up examination showed that non-rigid telescopic connectors with implants

for over denture stabilization appears to be an efficient and effective long-term treatment modality. Particularly in the case of geriatric patient treatment, this concept may provide advantages in terms of handling, cleaning and long-term satisfaction. Immediate functional loading is now possible within overdentures supported by a comprehensive range of bar and telescopic abutments.

Wöstmann postulates that within the limits of a retrospective study it can be concluded that the number of attachments and thorough after care have a considerable impact on the long-term success of telescopic removable partial dentures.

Some of the benefits of the telescopic overdentures include the prevention of bone loss, aesthetic appeal, improved speech (compared to conventional) proper jaw alignments and improved chewing efficiency. These overdentures systems can last a lifetime and increased chewing powered by up to 300%.

The probability that the patient will have kept using it years after is 80%. The telescopic crown system is versatile and successful in achieving the long-term restoration of the edentulous jaw. Insertion and removal of the appliance and routine oral hygiene are easy to perform by patients with limited manual dexterity. The reconstruction

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The abutments are blocked out and a coating of vaseline is applied.



The cast housing is sandblasted with 60 μm AlOx before applying the bonder.



Friction Fit A & B components are mixed together and placed in the housing before positioning on the abutments to harden.

Telescopic Implant Overdentures; Utilizing the Friction Fit System.. cont'd

of the telescopic technique whether on telescopic crowns, implant abutment or implants bars, enables easy adjustment and friction adjustment utilizing the FPG Friction Fit System.

Furthermore, the patient acceptance, ease of oral hygiene, general satisfaction with telescopic overdentures showed an overall marked improvement. Of further note the ability to speak, comfort, aesthetic appearance, stability of the overdentures during function and the ability to chew were also high on the list of benefits.

In conclusion, the clinical results derived from the studies and research showed that crown, bar or implant supported telescopic overdentures were predictable for edentulous patients. Therefore Bredent's friction fit system can be a viable treatment protocol that extends the life of the restoration because of the renewable resin system. Consequently, increased resistance to wear and extended Service life is of benefit to both the clinician and patient.

Source; Peter T. Pontsa, RDT

* additional references are available upon request.

**For more information concerning this product contact Dent-Line of Canada Inc at 1-800-250-5111.

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Announcements: George Brown College

Peter T. Pontsa, RDT recently enjoyed presenting a lecture and hands-on VKS Attachments course to the third year students at George Brown College. Peter found the students attentive and eager to learn about attachment systems and appreciated the warm welcome extended to him by Carrie Co-Dyre and the students. Dent-Line of Canada wishes the very best of success to those George Brown College students still in the program and those that are ready to graduate.



Announcements: NAIT's Day of Celebration

On April 13th, 2012, Peter T. Pontsa, RDT was invited to partake in the NAIT "Day of Celebration". He provided a lecture which was unique in nature and departed from his normal presentations on Dental Technology and featured instead his experiences as a youngster and how he first became involved in dental technology and later became president of Dent-Line of Canada Inc. The message primarily was to congratulate the students on their fine efforts on their chosen career, but to remember to always be on the look out for the opportunities in life and how something which

appears to an obstacle may become a great opportunity. Once again, Dent-Line of Canada would like to congratulate the students at NAIT. As part of the celebration, Dent-Line provided a Renfert Hotty LED dip pot as a door prize.



Trade Show News and Announcements

Denttechnica du Québec has changed venues and will be held in Montreal. This is the only dental technology show in Québec and this year will provide better access to the convention hall. It will be held **October 26th and 27th, 2012** at The Palais des Congrès, 1001 Place Jean-Paul-Riopelle in Montréal's downtown core. There is free admission to the Friday night cocktails and the lectures will include subjects such as ceramics, cad/cam, attachments, removable prosthetics and implants. Dent-line of Canada will sponsor the lecture: Attachments: Fixed and Removables Prosthetics. For more

information contact us at 1-800-250-5111 or Palmeri Publishing at 1-905-489-1970

Dent-Atlantic will take place at the Lord Nelson Hotel and suites in Halifax on **September 7th and 8th, 2012**. The date has been changed because of the Victoria Day holiday. Please join us for a great educational format. Dent-line will be sponsoring a lecture entitled Attachments: Fixed and Removable Prosthetics which will be presented by Peter T Pontsa, RDT. For further details on Peter's seminar, contact us at 1-800-250-5111.