



The Dent-Liner™

A Bulletin Dealing With Issues For Dental Health Professionals

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The SonicBrite System

A Clinical Evaluation of Cleaning Dentures

Growth in the aging population has resulted in an increasing number of older persons requiring dentures. The micro porous surface of an acrylic denture provides a wide range of environments to support micro-organisms that can threaten

the health of a physically vulnerable patient. Denture maintenance is important for the health of patients and to maintain an aesthetically odour free appliance.

The current rates of edentulism have been estimated to between 7% and 69% of the adult population internationally. In the U.S. while the incidence of edentulism continues to decline, rapid population growth coupled with current economic conditions suggest that edentulism and

conventional denture use will continue at current or higher numbers.

The oral health of the completely edentulous patient is a significant factor with relation to the quality of life, nutrition, social interaction and general systemic health. In addition, denture wearing patients, are at risk of denture stomatitis as a result of the presence of oral biofilm on complete dentures.

A 2008 report by Ishikawa and colleagues indicated that weekly cleaning of the complete dentures significantly decreased multiple oral bacteria strains when compared with the daily chemical disinfection methods and suggested this to be a viable strategy for reducing aspiration pneumonia in the dependent elderly. Clearly evidence is mounting regarding the relationship between complete denture hygiene and overall health.

Research shows that dental biofilms (streptococcus) accumulate readily on rough denture surfaces, rather than on smooth ones. Brushing is the most common cleansing method employed on complete dentures and it may damage the integrity of the acrylic resin.

A study evaluated the abrasion resistance of artificial teeth with a number of different acrylic layers, subjecting them to the abrasives of specific and non specific



The Sonic Brite System

dentifrice for denture cleaning. It was found that a mass loss of surface features and an overall roughness remained.

Therefore polishing and consequently the maintenance of denture hygiene becomes much more difficult. Every surface on the oral cavity, natural or synthetic becomes covered within 30 minutes with a micro thin layer of biofilm that in turn provides a substrate to which oral debris such as food particles and micro-organisms (bacteria & fungi) readily adhere, especially on roughened surfaces. Unclean dentures contribute to mucosal disease and can cause impairment in eating and therefore may have a profound effect on a frail elder.

Also there are problems posed by the shear magnitude of the microbial population supported under dentures. Denture plaque serves as a source of infectious oral materials available for aspiration and also contributes to mouth

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A Clinical Evaluation of Cleaning Dentures Using the SonicBrite System

SonicBrite is so easy to use... every prosthetic wearer should use one!



odour. There are many approaches to try to keep dentures clean: Webb and colleagues investigated the use of microwave radiation to disinfect the denture. Although effective, non viable organisms still existed on the surfaces. Because of this, microwaving should be preceded with thorough brushing. Bleach is effective, but not for removable partial dentures since the metallic elements will acquire a black stain after 10 minutes.

A study called "Interventions for Cleaning Dentures in Adults" found weak evidence in support of soaking dentures in effervescent tablets or enzymatic solutions. Brushing with an abrasive is

not recommended particularly for elderly individuals with poor manual dexterity. However Gwinnett and colleagues demonstrate effective disinfection of inoculated dentures through the use of ultrasonic treatment could be achieved.

The manner of action of ultrasonic devices is unique in that they produce ultrasonic waves which create microscopic cavities which grow and implode. This implosion creates voids that result in localizing areas of suction. Materials adhering to the denture are loosened and removed by this action. This is commonly known as "cavitation". Along with a denture cleaning solution, the cleaning action is doubled by accelerating the chemical reaction within the cleaning solution and increasing the rate at which surface biofilms are dissolved.

To reiterate, unclean dentures can cause ailments that can come from swallowing bacteria living in hard to clean creases and crevices. Issues such as respiratory infections, digestion tract infections, cardio endocarditis and wounds that don't heal are a common occurrence

among denture wearers who have developed bacterial colonies. It is not enough to kill surface bacteria on the appliance, because bacteria can form in the porous inner recesses of the methyl methacrylate. The only way to reach into these porous areas where bacteria hide is via sonic vibration. The *SonicBrite System* is a full spectrum disinfectant, which means it kills all bacteria from gram positive staphylococcus, gram negative E Coli and even kills infections such as Candida Albicans. SonicBrite is precise, fast and consistent, something effervescent tablets can't accomplish. It has a 99.9% kill ratio of bacteria that cause odour, according to guide lines set forth in USP 51, Preservatives Effectiveness Challenge performed by In House Laboratory Testing. Dental health professionals and patients should realize that microbial plaque on dentures may be harmful to both oral mucosa and the patient's general health. It is the dental health professional's obligation to motivate and instruct the patient and provide the means and methods for plaque control.

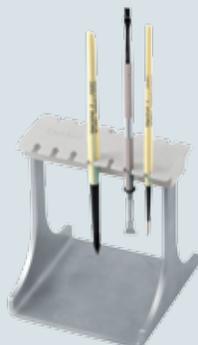
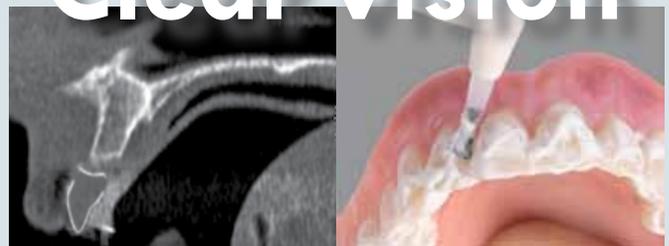
Source; Peter T. Pontsa, RDT

* References are available upon request.

Product Show Case

Bredent's X-Resin Flow is a radiopaque silicone varnish for diagnoses of pre-operative planning and prosthetically oriented planning. Bredent's X-Resin flow allows fabrication of a scan template utilizing the existing denture in just a few minutes. This radiopaque silicone varnish is applied to the teeth of a full denture and thinly spread using a disposable brush. The contours of the teeth can be clearly recognized in the scanned image (DVT or CT) and thus prosthetically oriented alignment of the implants in the implant planning software is enabled. Bredent's X-Resin flow is fast and an economical for prosthetically oriented implant planning. For further information please contact us at 1-800-250-5111 Toll Free or email info@dent-line.com

Clear vision



Bredent's Unique Brush and Brush Holder are a great combination. The unique brush has a newly developed matt black bristles and a unique design of each brush. The perfectly shaped brush tips enables accurate placement of the ceramic powders. It has superior moisture retention along with high elasticity of the brush hair. The brush holder stores up to 14 brushes and instruments in a soft silicone that prolongs the service life of the brushes. There is no danger to sensitive working sections of the instruments and no risk of injury caused by pointed inserts. For further information please contact us at 1-800-250-5111 Toll Free or email info@dent-line.com

Temporary Dentures Using Qu-Base UV



Block out undercuts and separate with Isoplast ip REF 54001019.



Take Qu-Base UV prefabricated plates from the package and adapt to the model.



Shape contours and flanges, then adapt excessive materials on alveolar ridge.



Set up teeth into the soft materials and light cure for 3 minutes each from top and bottom.

An immediate denture is a dental prosthesis constructed to replace the lost dentition of the maxilla and mandible and is inserted immediately after the removal of the affected teeth.

Each year, in the United States over twenty million teeth are extracted leaving a lot of people with deficient and inadequate smiles. These individuals suffer a decline in the ability to chew which means the avoidance of eating certain healthy and beneficial foods. Furthermore the absence of teeth becomes a social embarrassment for many which leads to emotional pain, such as feeling nervous or self-conscious.

Patients rarely relinquish their dentures but they are less reluctant to have diseased teeth removed if they are replaced immediately. Therefore a temporary denture has many advantages such as the patient does not have to suffer through a period without teeth. The temporary acts as a bandage or splint to help control bleeding and it reduces the swelling and pain. There is good and adequate function in speech as well as an aesthetic appearance while it provides a minimum for social interruptions and maximum psychological advantages.

Transitional dentures are also called intermediate, interim or treatment dentures. They are constructed to allow the patient to wear a restoration instead of waiting up to 6 to 10 weeks for the gums to heal. The choice of light curing resin for partial denture base is also significant. Qu-Base UV is a light cured base plate which can be used in conjunction with Qu-Resin. Until recently, processing of the partial denture with transitional methods has been a time consuming procedure that will inevitably delay the delivery of

the finished partial following the try-in appointment.

Utilising Qu-Base UV and Qu-Resin the processing time can be shortened by 50 minutes and eliminates the need for two extra appointments. Additional benefits to the system is that both resins are processed directly on the model, diminishing the off chance of distortion in injecting the prosthesis. Some requirements for maximum success are the compatibility with the surrounding oral environment. Also, the function is in harmony with the process of speech, breathing and swallowing. Finally the restoration provides efficient chewing, aesthetic acceptance and safeguards the tissues that remain.

If the patient is unable to maintain the abutment teeth due to inadequate oral hygiene, then the interim denture can be converted to a traditional complete denture by extracting the diseased teeth and relining the denture after sufficient healing. Usually ridge resorption is most rapid during the first half year and the denture reline can correct the Vertical Dimension. Afterwards yearly evaluations of the dentures are highly encouraged to ensure the patients facial dimension. The procedure to manufacture a temporary denture begins with a primary impression, made with a stock tray and alginate. A custom tray is fabricated on the cast and vinyl polysiloxane impression is taken. The upper and lower casts are mounted using the bite registration. The

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Brush on Qu-Connector in areas where Qu-Resin is added and then light cure.



Add on Qu-Resin pink and let set. It takes about 3 minutes and no pressure pot is required.



Trim and polish, then present the denture to the patient.

NOTE: The publication of these pictures were provided courtesy of bredent GmbH & Co. KG

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laboratory procedure entails taking the maxilla cast and blocking out undercuts, then separating it with *Bredent Isoplast*. Next, a preformed maxillary is made with *Bredent Qu-Base UV Plate*, is selected. This is then adapted to the cast and cut back to form the denture. Since metal clasps would compromise the aesthetics, we press resin clasps into the soft plate material. Trim the teeth and sandblast the area to be connected. Apply the *Bredent Qu-Connector*, and light cure for 90 seconds. Next, adapt Qu-Base into rolls and apply to the alveolar ridge. Set up the teeth into the soft Qu-Base and light cure for 3 minutes each from top to bottom. Brush on Qu-Connector around the necks of the teeth and buccal flanges where the Qu-resin will be added. Fill in all the cavities to full contour and let the Qu-resin set in about 2 -3 minutes. Trim and polish the denture.

The Qu-Base UV is available in upper and lower prefabricated plates that make temporary dentures an easy task. By adding Qu-resin to the system, no wax set-up, no silicone matrix and no pressure pot will no longer be required. This saves time and money. By accelerating the clinical and laboratory procedures, the Qu-Resin and Qu-Base UV are a quick and economical system which augments good organization in providing prompt and efficient patient care.

Source; Peter T. Pontsa, RDT

* References are available upon request.

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Trade Show News and Announcements

Journées Dentaires

Canada's largest annual scientific and dental exhibition, the Journées Dentaires Internationales du Québec, now has a dental technology component. This year the convention will be held from May 27th to 31st in Montréal at the Palais des Congrès de Montréal. Feel the excitement of taking a Formula 1 Race Car for a spin, sponsored by the Fondation de l'Ordre des Dentistes du Québec and J.D.I.Q. Visit the Grand Prix Formula Simulator located in the exhibit hall next to the Dental Industry Showcase. Peter T. Pontsa, RDT will be presenting his seminar on *Sleep Apnea, Recognition, Diagnosis and Treatment with SleepPlus, a Mandibular Advancement Device*.

Perfect Your Practice

Perfect Your Practice 2011 is scheduled for September in Collingwood. More details about the convention will be published in the summer edition of the Dent-Liner.

Presentation at George Brown College



Mr. Peter T. Pontsa, RDT pictured here with Ms. Sonny Shin as she accepts her Renfert Waxlectric II.

Every two years the Dental Technology Program at George Brown College has an event called "Day of Celebration", where students, alumni, suppliers and instructors gather together to celebrate achievements and improvements. This year Peter T. Pontsa RDT president of Dent-line was pleased to present a Renfert Waxlectric II to Ms. Sonny Shin a first year student who has excelled in crown & bridge. We wish Ms. Shin a prosperous future and expect the electric waxer will be a great aid in her pursuits of higher learning.

Donation of Waxlectric to NAIT



Mr. Peter T. Pontsa, RDT and Mr. Jason Lohr, RDT

During the Dentech West Convention 2011 held in Edmonton, this past April 15th and 16th, Peter T. Pontsa, RDT presented a Renfert Waxelectric II to Mr. Jason Lohr, RDT who is the Associate Chair of the Dental Technology Program and Instructor for Fixed Prosthetics at NAIT, the Northern Alberta Institute of Technology. The waxlectric was gratefully accepted and will be put to good use in the classroom.