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The Dent-Liner

A Bulletin Dealing With Issues For Dental Health Professionals

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.

Special Interest Articles:

Individual Highlights:

Mouth Guards Prevent Dental Trauma in Sports

For the people who engage in sporting activities, a mouth guard is essential because the single most serious tragedy is not losing the competition, but receiving a serious injury that could have been prevented. Anyone who is active in sports should wear protective equipment, especially mouth guards. By doing so, this simple safety appliance will reduce oral injuries in athletes in all sports every year. Full contact or non contact sports can cause harm to: lips, teeth, tongue, jaws, and even concussions. This is why dentists see more injuries to the mouth as a consequence of participating in sports activities, than from any other type of damage. Research literature has pointed out that mouth guards definitely aid in averting broken teeth, fractured jaws and traumatic injuries to the bone that hold the roots of the teeth in place. The idea of the mouth guard came about in the 1900's when Jacob Marks, a citizen of London, was credited with the invention. Later, boxing in the 1920's was the first sport to see the advantages of preventing severe head injuries like concussions as a result of glass jaw. The first documented mouth guard was developed at Notre Dame University in the 1960's to prevent the glass jaw phenomenon. Not long afterward the U.S high school foot ball players became the first athletes required to wear mouth guards. According to one survey more than 5 million teeth are knocked out each year during sporting events. Mouth guards can diminish the risks of causing damage to the hard or soft tissue or maxillary or mandible fractures; lip lacerations, knocked out or chipped teeth and concussions. This type of damage is common not only to high risk sports such as boxing, karate, hockey, and lacrosse, but also to less dangerous sports like basketball and baseball and of course non-contact sports like gymnastics and in-line skating. Unlike some other injuries a single blow to the dentition is a traumatic injury that may not completely heal, and can become an expensive long term inconvenience for the afflicted athlete. Studies have linked sporting activities to nearly one third of all dental injuries and to approximately one in six sports-related injuries to the craniofacial area. Through the years the use of face shields, helmets and mouth guards in football has decreased the incidents of oral trauma from 50% of all injuries to approximately 1%. Another survey of practicing dentists found the highest frequency of oral injury in baseball and biking. Also more women are taking part in athletic competition, and are under going more oral injuries as a result. Thousands of school children play at least one organized sport and are most susceptible to sport related oral injury between the ages of 7 and 11 years. Maxillary incisors are prone to about 80% of all dental traumas. For children who are injured and their families, the outcome of oral facial damage is significant because of its pending source of pain, both psychological and economic. Studies at Sheffield demonstrated that multi-layered structures display less deformation than singular structures of pure EVA material (Ethylene Vinyl Acetate). As a consequence, the researchers believe that laminated mouth guards may offer better protection, since they reduced the transmission of a destructive blow. This may include Shield's double and triple density mouth guards. The University Dental School and Hospital Ireland provided data to quantify dimensional changes that occur during thermo-forming ethylene vinyl acetate (EVA). Sheets of 3 mm EVA were stretched by 52% during the thermo-forming conditions. Incisal / cuspal areas were found to be significantly thinner when compared with other locations measured, there by reducing the protective effect of professionally made mouth guards. The effective range of between 3 to 5 mm is needed for effective prevention of Minimal Traumatic Brain Injury. Stenger in 1964 reported that forces from mandibular impact would be alleviated with a mouth guard resulting in fewer injuries. Hickey discussed that mouth protectors reduced pressure

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Mouth Guards Prevent Dental Trauma in Sports cont'd...

Thousands of children play at least one organized sport and are most susceptible to sports related injuries between the ages of 7 and 11 years.

Even a simple game of soccer amongst small youngsters can result in damage such as depicted above.

changes and bone deformation within the skull in a cadaver model. He demonstrated a decrease of 50% in the amplitude of the intracranial pressure after a blow to the chin when wearing a mouth guard. Dr. Karen Johnston a prominent Canadian concussion researcher noted that "the force required to concuss a fixed head is almost twice that required to concuss a mobile head". Further there is some connection between the degree of rotation; that the head goes through on impact and the severity of the concussion that might result. By activating additional head and neck muscles at the time of impact this arc rotation might be decreased, leading to less harmful movement of the brain inside the skull. Some researchers have begun to show that by being able to clench down harder on a mouth guard, that activation of the head and neck muscles might serve to stabilize the head. Properly designed mouth guards can also reduce the likelihood of an injury to the head, neck and oral cavity of the wearer by preventing the condyle of the mandible from being driven into the glenoid fossa on impact, which would otherwise transmit forces directly to the brain. The correct occlusal thickness of a mouth guard holds open a gap between the condyle and fossa. This interrupts the path of force from a blow to the jaw of the wearer, thereby minimizing the risk of concussion. Types of Mouth Guards; the ready made stock types are the least expensive, least comfortable and least protective and not recommended. Custom made types are formed from an impression. These mouth guards are more costly than commercially produced types. They offer good fit however vacuum forming thins out the occlusal aspect as mentioned in the Sheffield studies and yet this is where protection is most needed. Pressure lamination is also available however, the process is very expensive. The "Boil & Bite" types are made from thermo plastic and acrylic gel and are available in multiple densities. The fitting procedure is often more successful if undertaken or supervised by a dental professional. They can ensure a proper fit and consistent thickness in the labial and occlusal portions where it is critical and especially when fitting to orthodontic braces. A recent development by Shield manufacturing

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Bredent's Tap for Exchangeable Studs are available in both 1.7 & 2.2 mm!

Tap is pictured with the tap holder; a tap wheel is also available.

Now an existing restoration can be saved by re-threading the sleeve.

Featured Product; Bredent's New Tap for Exchangeable Studs

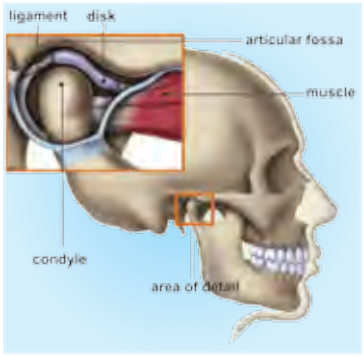
Bredent's new tap for the exchangeable stud comes in 1.7 and 2.2 mm size. One of the concerns when casting to the gold sleeve is that the alloy may flow between the sleeve and the fixation screw despite following proper procedures. This can destroy the thread and a new restoration may have to be made. The solution to assist the dental technologist before having him make the restoration is to restore the integrity (geometry) of the threads. After removing the fixation crew, a rubber polisher is used to remove the flash or excess alloy from the cast on sleeve. Then the respective tap can be used to re-cut the thread. Generally breakage of the tap can be avoided only if drilling and milling oil is used during the re-tapping procedure. Please note that if the technician attempts to continue turning the tap once it has reached the bottom of the sleeve, the tap will break! Accessories include milling and drilling oil, tap holder and tap hand wheel. **For pricing and availability call us today at 1-800-250-5111.**

Featured Product; Shield Extreme® Mouth Guards

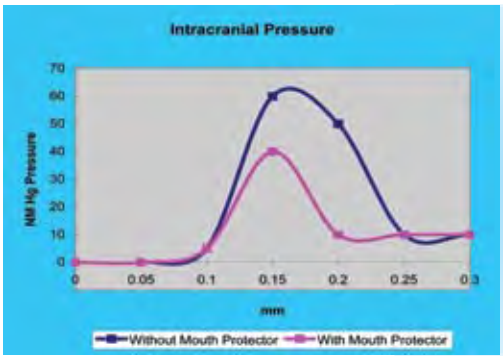
Shield Extreme® mouth guards are available in double or triple density moulds for the ultimate protection against injury. An optional helmet strap is also available.

Dent-Line of Canada Inc. recently decided to complement its existing line of products by becoming the exclusive distributor of Shield® Mouth guards for the dental professional industry throughout Canada. Protect your patient from accidental injuries from sports like football, soccer, boxing, martial arts, baseball, basket ball and other contact sports. Shield® Mouth guards are available in double and triple density moulds to provide extra protection. Extreme protection which helps prevents concussions. By using double or triple shock absorbing material, maximum protection is achieved while still providing comfort since the inner material is specially designed for contact with the gums. The outer material prevents the guard from being chewed through while increasing shock absorption. There is even one designed for braces that will not damage the braces and protects the lips from being injured by the braces. This boil and bite mouth guard is less expensive and takes less time to prepare than conventional vacuum formed mouth guards. The material contains I.G.B. an anti-bacterial material which inhibits the growth of bacteria in the surface of the plastic. Also available is a convenient mouth guard carrying case with an exclusive locking top. **Contact us today for more details at 1-800-250-5111.**

Mouth Guards Prevent Dental Trauma in Sports cont'd...



Properly designed mouth guards can also reduce the likelihood of an injury to the head, neck and oral cavity of the wearer by preventing the condyle of the mandible from being driven into the glenoid fossa on impact, which would otherwise transmit forces directly to the brain.



A study conducted by J. Hickey in 1967 indicates that mouth guards provide better protection against intracranial pressure caused by a blow to the head.

New triple density lamination mouth guards with direct air shock protection.

Impression taking is simple with the boil and bite method.

A custom fit is best provided by a dental health professional.

Protection against damage to teeth should be a priority for all athletes.

A properly fitted mouth guard will provide excellent protection to the teeth and gums.

offers Whole Head Protection because it has Triple Density lamination and features Air Shock Protection. The patent-pending features consist of a contoured outer shell to enhance fit, a soft inner filler that gives complete comfort with added protection and a patented suction fit channel. Also the air cushion shock absorbing platform offers maximum protection against concussions. For a mouth guard to be most effective it is essential that it fits properly and stays in place during vigorous activity. Coaches should encourage the use of mouth guards to avoid injuries and to minimize lost participation time of athletes. Most researchers feel that the rate of dental and mouth injuries is much higher than the reported incidences. It is essential we educate parents and athletes about the value of mouth guards and the proper use of this safety device. Dentists can begin the education process by enquiring as part of the health history, whether or not each patient participates in sporting or recreational activities that pose a risk of oral health. Councils on Scientific Affairs and the Council on Access, Prevention and Inter-professional Relations encourage dentists to become more active and influential in injury awareness campaigns and to even develop local initiatives and preventative programs that provide mouth guards in schools, colleges and community centers. Dental practitioners can have a far reaching role in their communities by actively promoting mouth guards to their patients.

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The correct occlusal thickness is between 3.0 and 5.0 mm to prevent traumatic brain injury.

A convenient carrying case can be purchased as an extra option.

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About Our Organization...

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Mouth Guards Prevent Dental Trauma in Sports cont'd...

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Source; Peter T. Pontsa

Special Announcements: Upcoming Trade Shows

The **2008 National Symposium for Denturists will be held from September 18th to 20th** at the Hotel Mortagne Boucherville, located at 1228, rue Nobel. For reservations, contact 1-877-655-9946. For more information about the Symposium contact the Association de Denturologistes du Québec at 1-800-563-6273 or at denturo@adq-qc.com. Do drop by our booth to see our exciting new products like the Shield® Mouth guards! The **Dentechnica du Québec Conference will be held on November 7 & 8th** also at the Hotel Mortagne located in Boucherville. For more information contact Mr. Jean Compagna, t.d. at 1-514-728-5352 or prolabo@rogers.com.

Trade Show News: Alberta Annual Conference & Trade Show

Dent-Line of Canada Inc. would like to thank the College of Dental Technologists of Alberta for the opportunity to attend their Annual Conference and Technology Trade Show held this past April 4th and 5th in Edmonton, Alberta. We enjoyed meeting with the enthusiastic attendees that visited our booth from across Alberta**.** Pictured from left to right are Angela van Breemen, BA and Peter T, Pontsa, RDT.

Trade Show News: 3rd Biannual Dent-Atlantic 2008 Show

The 3rd Biannual Dent-Atlantic 2008 Convention was a an overwhelming success and we would like to thank all the participants who came to visit our booth and to those who came to see our newest seminar, **"Innovative Attachment Techniques"** presented by Mr. Peter T. Pontsa, RDT, President of Dent-Line of Canada Inc. Seen in the picture at the right is Mr. Ettore Palmeri, one of the organizers of the event, introducing Peter (far right) prior the lecture.

Trade Show News: 34th Annual Technorama Trade Show

The 34th Annual Technorama Dental Technology and Denturism Convention was a huge success thanks to the DIAC organizers and the many dealers and suppliers who sponsored the Food and Wine event Friday, May 9th. Peter T. Pontsa, RDT also presented the seminar "Innovative Attachment Techniques" to an eager group of dental technologists and denturists. Pictured from left to right are Angela van Breemen, Peter T. Pontsa, Stephanie Spratt and Christine Goyette.