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CJRDP JCDRP

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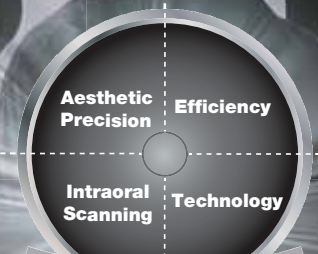
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*Dr. Maureen Andrea
CARDP President*

Dear colleagues,

The Canadian Academy of Restorative Dentistry and Prosthodontics Celebrates it's 20th Anniversary during the meeting in Halifax, Nova Scotia September 6-8th, 2012. It is a great honor and privilege to represent CARDP as president. Hailing from the East Coast I am particularly proud of the scientific program that Dr. Peter Thomson and Dr. Mark Sutherland have put together.

As this Academy grows, its influence on dentistry becomes more defined. The Canadian Journal of Restorative Dentistry and Prosthodontics, under the capable leadership of Dr. Hubert Gaucher Editor in Chief, has increased the profile of CARDP with this peer reviewed journal. The commitment to higher education is apparent, and the long-standing relationship between industry leaders and CARDP enables the Academy to deliver a clinically relevant program for members and guests. As a recognized provider of ADA CERP, the continuing education is in a unique format that will satisfy all clinicians.

Dr. Carpentieri delivers a full day hands – on evidence based lecture on CAD/CAM integrating several different scanners. Many topics will be covered including clinical guidelines, abutment selection, framework designs, digital impression taking and reverse engineering. The first day of the Academic program has 6 leaders in dentistry each delivering 60 minute lectures. This format allows the attendee to receive valuable information on provisional implant techniques, differentially diagnosing oral lesions, occlusion, direct posterior composites, new dental materials and technologies and digital implant planning, placement and prosthetics. Saturday is a full day of short, intense 18 minute lectures and ends with the ability to interact with speakers in the table clinic session.

Of course, what makes this Academy different from most is the robust enjoyable social program. This meeting will have a Maritime, Celtic flare. While kayaking on our beautiful waters, golfing in Chester, listening to some toe tapping maritime music and enjoying the best lobster in the world, everyone will return home with many memories. Dr. Ash Varma will succeed me as President and on his behalf I invite you to end the celebration at the President's Gala.

The members of the Atlantic region welcome you to Halifax!

Sincerely,

*Dr. Maureen Andrea
CARDP President*

Chers Collègues,

L'Académie Canadienne de Dentisterie Restauratrice et de Prosthodontie célèbre son 20^e anniversaire lors de sa réunion à Halifax, Nouvelle-Écosse du 6 au 8 Septembre, 2012. C'est un grand honneur et privilège de représenter l'ACDRP en tant que Présidente. Originnaire de la côte est je suis particulièrement fière du programme scientifique que les docteurs Peter Thomson et Mark Sutherland ont mis en place ensemble.

Avec le développement de cette Académie, son influence sur la dentisterie devient plus définie. La Revue Canadienne de Dentisterie Restauratrice et de Prosthodontie, sous la direction compétente du Docteur Hubert Gaucher, Rédacteur en Chef, a augmenté le profil de l'ACDRP dans cette revue destinée à ses pairs. L'engagement de cette revue dans un haut niveau d'éducation est apparent, et la relation de longue date entre les leaders de l'industrie et l'ACDRP permet à l'Académie d'offrir un programme cliniquement pertinent pour les membres et invités. En tant que fournisseur reconnu de l'ADA CERF, la formation continue offrira un format unique qui saura satisfaire tous les cliniciens.

Le docteur Carpentieri donnera une journée complète de travaux pratiques et de conférence sur les systèmes de CAD/CAM comprenant plusieurs différents scanners. De nombreux sujets seront couverts, y compris des lignes cliniques directrices, des sélections de piliers de soutien, des conceptions d'armature, des prises d'empreinte numérique et technique inversée. Le premier jour du programme Académique, propose 6 chefs de file dans l'art dentaire, donnant chacun une conférence de 60 minutes. Ce format permet au participant de recevoir des informations précieuses sur les techniques d'implants provisoires, les différents diagnostics sur les lésions orales; sur l'occlusion, les composites directs sur les postérieures, les nouveaux matériaux et techniques dentaires, la planification d'implants numériques, leur placement et les prothèses. Le samedi est une journée entière de courtes et intenses conférences d'une durée de 18 minutes, qui se termine par la possibilité d'interaction avec les speakers, dans une session de tables rondes cliniques.

Bien sur ce qui rend cette Académie différente de la plupart des autres, est le solide et agréable programme social. Cette réunion aura une allure Maritime et Celtique! Soit en faisant du kayak sur nos belles eaux, ou jouant au golf à Chester, ou en écoutant de la musique maritime qui fait taper du pied, ou en se régaland du meilleur homard du monde, tout le monde rentrera chez soi avec de nombreux souvenirs. Le Docteur Varma me succèdera en tant que Président et en son nom je vous invite, pour terminer cette célébration, au Gala du Président.

Les membres de la région Atlantique vous souhaite la bienvenue à Halifax!

Sincèrement,

Dr. Maureen Andrea
ACDRP Présidente



Dr. Hubert Gaucher
Editor-in-Chief /
Rédacteur en chef

Dental Practice Based Research (DPBR): How Can We Maintain and Advance our Profession's Credibility?

Is it a coincidence that so many recent dental journal editorials are appealing to their readership about the need to participate more actively among Government Agencies, other Health professionals and the public at large?^{1,2}

A former CDA President and recently elected ODQ President states: "One thing has become evident: dentists have been out of the public eye and absent from much of the decisionmaking process within health care for too long. We were not at the table when legislators brought in reforms relating to access to electronic patient records, which have now evolved into bill 59, concerning the sharing of certain health information. As primary providers it is essential that this error be corrected and as such we have had to submit a brief to ensure that our concerns would be taken into account."²

Is traditionally organized dental research the sole means for increasing our Profession's credibility and visibility? As it is, too many Systematic Reviews leave us with more questions than answers, making us painfully aware of the dismal quality of the clinical studies available.³ Faced with this challenge, shouldn't dentists finally become generators of evidence? "For the profession to use EBD effectively for the benefit of the patients, it needs to be generating the high quality clinical evidence from which it can draw."⁴ Grass roots **Dental Practice Based Research (DPBR)**, a relatively recent concept, is emerging as a great advocate of Evidence Based Dentistry principles and practices, and ultimately, as the empowering generator of credible clinical research.

The **2012 ADA-EBD Conference of Champions**⁵ addressed this specific issue by presenting various ongoing DENTAL PRACTICE BASED RESEARCH (DPBR) entities:

- "In fact, some have referred to much of the dental research conducted to date as scientifically valid, statistically significant, but clinically useless". We

would like to change that. The **Dental Practice-Based Research Network (DPBRN)** is a consortium of participating practices and dental organizations committed to advancing knowledge of dental practice and ways to improve it. Essentially, it is "practical science" done about, in, and for the benefit of "real world" everyday clinical practice. DPBRN's major source of funding is the National Institute of Dental and Craniofacial Research (NIDCR), part of the administrative base of the U.S. National Institutes of Health (NIH)."⁶

- "**PEARL – Practitioners Engaged in Applied Research and Learning** – is an NIH-sponsored network of private-practice dentists who conduct clinical studies in the course of routine patient care. **PEARL Network Studies** originate with ideas submitted by PEARL members and seek answers to questions of immediate interest to their profession. Over its 7-year grant period, the PEARL Network is expected to conduct approximately 20 short-term studies, several of which are currently under way or in the planning stages. PEARL Practitioner-Investigators enjoy a wide range of benefits – not the least of which is the opportunity to positively impact the future of dentistry."⁷
- "At its core, **PRECEDENT** was created to be a consortium of private practitioners conducting practice-based research in their own dental practices. In order to maintain a high level of interest and involvement from the membership, the Network employs a practitioner-centered design that relies on practitioner-investigators being actively involved in generating project ideas, developing protocols, conducting studies, and disseminating results."⁸

Looking Closer to Home: An Evidence Based source close to us all is: "**The Canadian Agency for Drugs and**

Technologies in Health (CADTH) that provides decision-makers with the evidence, analysis, advice, and recommendations they require to make informed decisions in health care. Funded by Canada's federal, provincial, and territorial governments, CADTH is an independent, not-for-profit agency that delivers timely, evidence-based information to health care leaders about the effectiveness and efficiency of health technologies."⁹ *Regrettably, this national Agency has not yet evolved towards Oral Health Care – EBD and DPBR.* On the other hand, a recently publicized national DPBR entity "**The Frontier Clinical Research Centre** is the first dedicated centre for all modalities of dentistry-related, patient-based research in Canada. The Centre is designed to support investigators and sponsors through every step of a clinical study. Individual investigators, research teams, industry and corporate sponsors in general are encouraged to explore the possibilities that the Centre has to offer to facilitate and increase the value of their study. Located in Vancouver at the Faculty of Dentistry, University of British Columbia, the Centre is in a remarkable position to leverage unique strengths at the university as well as throughout the industry to touch all points of the clinical research cycle."¹⁰

If only the folks at UBC had tried a simple Internet search using "dental research in Canada", they would have come across the link to www.cdri-icrd.ca. Indeed, the **Canadian Dental Research Institute (CDRI)**, a non profit, Canadian corporation, has been actively involved since its inception in 1990 in precisely the activities the **Frontier Clinical Research Centre** aspires to. In 1994 the

CDRI received recognition from the Québec government as an accredited Public Research Centre. This came about primarily because university administrators and their respective Deans of dental faculties at Laval, Montréal and McGill all endorsed the mission of the CDRI and thus became its University members. As a founding member, I can assert that the main impetus from the outset for my continued involvement with the CDRI has been the dire need to remedy the blatant absence of DPBR, not to mention the disconnect between Academic research and Clinical Dentistry! This theoretically laudible symbiosis between the Profession/Academe/Industry has unfortunately come across tremendous resistance over the years, from career-minded highbrows, seeking to maintain the sacrosanct "institutional" status quo, thereby undermining the content and quality of clinical research within its walls. Although Academia might contribute to DPBR, my own experience and orientation caution me to seek the involvement of clinicians **directly**, i.e. structuring projects close to the frameworks of the entities discussed above (The Dental Practice-Based Research Network (DPBRN), PEARL – *Practitioners Engaged in Applied Research and Learning*, and PRECEDENT).¹¹ The CDRI has prevailed with its visionary approach for over twenty years now and energetically applauds the emergence and contemporary support for DPBR. Over the years, practitioners might have felt overwhelmed and maybe even underwhelmed, and perhaps at times condescended to by self-appointed Dental Scholars or Industry Barons. Fortunately such attitudes are being

EDITOR'S NOTE:

CJRDP – EBD e-SURVEY – REMINDER

[https://www.surveymonkey.com/s/CJRDPEVIDENCEBAS
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AVIS DU RÉDACTEUR:

Sondage JCDRP – EBP (pratique basée sur les faits) – RAPPEL

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displaced, as I have abundantly illustrated.

Action and Role: The Canadian Academy of Restorative Dentistry and Prosthodontics (CARDP) can play a pivotal role in the development of DPBR by actively participating in the structure and implementation of Clinical Studies that endorse EBD principles and Clinical Trial designs that meet the CONSORT STATEMENT (Consolidated Standards of Reporting Trials, www.consort-statement.org)

A case in point, which is very much deserving of our membership's consideration, is Dr. Peter Walford's innovative clinical procedure recently published in our Spring Issue 2012, Vol 5-1, p. 24-38 (<http://www.cardp.ca/english/journals/cjrdp-v5n1-spring12/>) Dr. Walford is seeking assistance and collaborators to set up Randomized Clinical Trials that could evolve from pilot trials. Needless to say that the CDRI (www.cdri-icrd.ca) is interested and in a position to consider working with the membership and all other entities eager to support Dr. Walford's efforts. If such is your case, please contact Dr. Peter Walford directly

(pwalford@telus.net) or myself at hubertgaucher@cdri-icrd.ca

As we assemble in Halifax for our forthcoming Annual Scientific Meeting, I enthusiastically look forward to exchanging ideas with you about the leading position CARDP could assume in diligently supporting the emergence of DPBR in Canada. Such an involvement benefits our patients, our credibility, as well as that of Dental Faculties by engaging our Academic colleagues in DPBR. "Scientific diligence and application to patient care will be pivotal for the future of Dentistry. The PBRN can be a model for new strategies in education, incorporating dentistry in healthcare reform, and for scientific assessment for clinical outcomes."¹¹



Dr. Hubert Gaucher
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La recherche basée sur la pratique dentaire (RBPDP)

Comment maintenir et améliorer la crédibilité de notre profession?

Est-ce coïncidence que de plus en plus d'éditoriaux dans les revues dentaires font appel à leurs lecteurs de s'impliquer activement parmi les instances gouvernementales, les professionnels de la santé et le grand public?^{1, 2}

Un ancien Président de l'ADC, récemment élu Président de l'ODQ, déclare à ce sujet: «Un constat s'impose: les dentistes sont absents de l'espace public et du processus décisionnel depuis trop longtemps. Nous n'étions pas là quand le législateur a procédé à une réforme touchant l'accès au dossier patient électronique, qui fait maintenant l'objet du projet de loi No 59 concernant le partage de certains renseignements de santé. Par conséquent, nous avons dû déposer un mémoire pour nous assurer que nos préoccupations soient prises en compte.»²

La recherche dentaire traditionnelle est-elle l'unique

moyen d'accroître notre visibilité et notre crédibilité? Déjà, trop de revues systématiques nous laissent sur notre faim, dû à la piètre qualité des études cliniques qui se font présentement.³ Devant une telle situation, ne devrions-nous pas, dentistes praticiens, générer enfin nos propres évidences? «Afin que la profession utilise DBF (dentisterie basée les faits) de façon efficace pour le bénéfice des patients, elle doit générer des bases de données de qualité supérieure d'où elle peut puiser.»⁴ Ce concept plutôt récent d'une **recherche basée sur la pratique dentaire (RBPDP)** s'appuie sur les principes de la dentisterie basée sur les faits qui, ultimement, produira une crédibilité accrue des données.

Le Congrès des champions de ADA-DBF 2012⁵ prônait justement ce principe en présentant plusieurs entités de recherche basée sur la pratique dentaire:

- «En fait, certains qualifient la recherche dentaire faite jusqu'à ce jour comme étant scientifiquement valide, statistiquement significative, mais cliniquement inutile. Nous aimerions changer tout cela. Le réseau de la recherche basée sur la pratique dentaire (RRBPD) est un consortium de diverses pratiques et organismes dentaires dédié à l'avancement des connaissances et pratiques en dentisterie. Essentiellement, il s'agit d'une science pratique et réaliste, exercée dans la vie courante. La source de revenu principale de cette RRBPD provient du National Institute of Dental and Craniofacial Research, une division du National Institutes of Health (NIH) aux États-Unis.»⁶
- «PEARL – acronyme pour Practitioners Engaged in Applied Research and Learning (praticiens engagés dans la recherche et l'apprentissage appliqués) – est un autre réseau du NIH, composé de dentistes en pratique privée qui entreprennent des études cliniques à même leur routine de soins aux patients. Ces études jaillissent des idées soumises par les membres de PEARL qui cherchent à résoudre les questions d'intérêt immédiat à leur profession. Durant ses 7 années de subventions, le réseau PEARL mènera environ une vingtaine d'études à court terme, plusieurs qui ont déjà débuté ou qui en sont au stage de planification. Les praticiens-chercheurs de PEARL jouissent de nombreux avantages, non le moindre étant d'influencer la direction future de la dentisterie.»⁷
- «Le cœur de PRECEDENT est un consortium de dentistes qui entreprennent une recherche privée au sein de leur cabinet dentaire. Afin de maintenir un haut niveau d'intérêt parmi ses membres, ce réseau utilise un modèle qui se fie sur les praticiens-chercheurs pour le développement de projets, de protocoles, d'études et de dissémination des résultats obtenus.»⁸

Plus près de chez-nous: «The Canadian Agency for Drugs and Technologies in Health (CADTH) – L'agence canadienne de médicaments et technologies de la santé – fournit les informations, l'analyse, les conseils et recommandations aux décideurs des soins de la santé. Subventionné par les gouvernements fédéral, provinciaux et territoriaux, CADTH est une agence indépendante à but non lucratif qui procure aux dirigeants de la santé les renseignements basés sur les faits se rapportant à l'efficacité des technologies de la santé.»⁹ Malheureusement cette agence ne touche pas encore la santé buccale – la DBF et la RRPD.

«The Frontier Clinical Research Centre est le premier centre au Canada consacré à toutes les modalités de recherche relatives à la dentisterie et aux patients dentaires. Ce centre supporte les investigateurs et commanditaires dans toutes les étapes d'une étude clinique. Individus, équipes de recherche, industrie dentaire et commanditaires corporatifs peuvent exploiter les services du centre dans le but de simplifier leurs études et d'en augmenter la validité. Situé à Vancouver, dans la Faculté de Médecine dentaire de University of British Columbia, ce centre est dans une position particulière pour avantager l'université ainsi que l'industrie dentaire entière à tous les cycles de leurs recherches cliniques.»¹⁰

Si seulement nos amis à UBC avait fait une simple recherche sur l'Internet, utilisant les mots «recherche dentaire au Canada» ils auraient aperçu www.cdri-icrd.ca. En fait, l'Institut canadien de recherche dentaire, corporation canadienne à but non lucratif, existe depuis 1990 et remplit justement le rôle que Frontier Clinical Research Centre souhaite assumer. Et c'est depuis 1994 que l'ICRD est accrédité comme centre de recherche public par le gouvernement du Québec. Cela s'est produit parce que les dirigeants universitaires ainsi que les doyens respectifs des facultés de Médecine dentaire à Laval, Montréal et McGill ont unanimement ratifié la mission de l'ICRD et en sont devenus membres universitaires. En tant qu'un membre fondateur, je poursuis mon engagement auprès de l'ICRD dans ma lutte pour la RRPD, et contre l'écart lamentable entre la recherche qui se fait en milieu universitaire et la dentisterie clinique! Bien que cette symbiose Profession/Institution/Industrie soit louable, elle s'est malheureusement butée contre une résistance des plus obstinée au fil des ans, venant de certains pseudo-intellectuels qui cherchaient à protéger à la fois leurs postes et la soi-disant sainteté du statut quo institutionnel, ce qui a eu pour effet de saper le contenu et la qualité de la recherche menée à l'intérieur des murs de l'université. Bien que cette dernière soit peut-être en mesure de contribuer à la RRPD, ma propre expérience me pointe droit vers les praticiens eux-mêmes, ceux qui peuvent mener des projets basés sur les fondements des entités ci-haut énumérées, à savoir: RRPD, PEARL et PRECEDENT.¹¹

Cela fait plus de vingt ans que l'ICRD avance son approche visionnaire et je ne puis qu'applaudir l'émergence de la recherche basée sur la pratique. Dans le passé, les dentistes se sont peut-être sentis accablés ou possiblement infantilisés par des soi-disant savants de la dentisterie ou les Barons de l'Industrie, mais ces

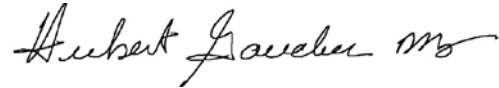
prétentions sont appelées à enfin disparaître, grâce aux intervenants que j'ai cités.

Action et engagement: L'Académie canadienne de dentisterie restauratrice et de prosthodontie (ACDRP) peut jouer un rôle charnière dans l'évolution de la RBDP en participant à la structure et l'implantation d'études cliniques qui se servent des principes de la DBF, et d'essais cliniques qui rencontrent les normes de l'énoncé CONSORT (Consolidated Standards of Reporting Trials, www.consort-statement.org)

Justement, un cas récent qui mérite notre attention est la procédure clinique novatrice du Dr Peter Walford, qui a été publiée dans notre Journal ce printemps dernier. Dr Walford cherche des collaborateurs pour mettre sur pied des essais cliniques aléatoires provenant possiblement d'essais pilotes. Il va sans dire que l'ICRD (www.cdri-icrd.ca) s'y intéresse et envisagerait une collaboration avec nos membres ou toutes autres entités désireuses de supporter les efforts du Dr Walford. Si tel est votre cas, veuillez communiquer avec lui directement (pwalford@telus.net) ou moi-même (hubertgaucher@cdri-icrd.ca)

Lors de notre congrès annuel à Halifax, je serai très heureux d'échanger avec vous sur la place que l'ACDRP pourrait occuper si elle assume un rôle de soutien pour la RBDP au Canada. Une telle complicité favorise à la fois nos patients, notre crédibilité, ainsi que nos collègues universitaires qui veulent s'impliquer dans la RDBP. «La rigueur scientifique et son application aux soins de patients seront charnière au futur de la dentisterie. La RDBP peut être un nouveau modèle en

éducation, incorporant la dentisterie dans les réformes des soins de santé, et dans l'évaluation scientifique de résultats cliniques.»



Dr Hubert Gaucher
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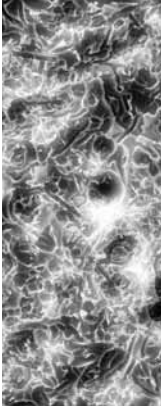
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Effect of Repeated Firing on Porcelain to Composite-Bond

Effet des cuissons à répétitions sur le lien porcelaine-composite

Abstract

Proper etching of feldspathic porcelains used for fabrication of ceramic veneers is critical for achieving optimal porcelain-composite bond strength. The quality of the etching depends on the type and concentration of etchant, the etching time, as well as the volume of leucite crystals in the porcelain. Repeated firing has shown to change the volume of leucite critical for etching of porcelain. **Purpose:** This study evaluated the effect of repeated firing of three porcelains containing varying levels of leucite on bonding to composite resins. **Materials and Methods:** Porcelain specimens from three manufacturers were fired one, five, or 10 times, and then etched and bonded to composite resins. The bonded samples were tested for their shear bond strength. Porcelain samples were also examined for their microstructure using SEM. **Results:** Among the three porcelains tested, significant differences in bond strength were measured. The bond strength of each porcelain remained similar after one, five, or 10 firings. Repeated firing did not substantially change the appearance of the etched porcelains, but each porcelain displayed a unique appearance. **Conclusion:** Two dental porcelains had superior bond strength compared to the third. Repeated firings did not change the bond strength of any of the 3 porcelains. **Clinical Significance:** The bond strength of etched porcelain to composite resin is unlikely to diminish by the repeated firing of porcelain. Hence, multiple firings of ceramic veneers can be performed with confidence. However, porcelain-composite bond strength varies significantly among different feldspathic porcelains used varying leucite level contents for ceramic veneers.



Introduction

Longitudinal studies and clinical observations of ceramic veneers bonded to enamel substructure have reported low fracture and debonding rates and low degree of micro leakage.¹⁻⁴ Due to the strong bond between ceramic and enamel via the composite luting resin, fractures of porcelain veneers are primarily cohesive within the porcelain.³ Bonding porcelain involves etching with hydrofluoric acid (HF) to generate micromechanical retention necessary for porcelain-composite bond.⁵⁻⁸ This mechanical bond is further enhanced by a chemical bond using silane coupling agents.⁹⁻¹⁰

Dental porcelains typically are made by varying the composition of the glass phase to achieve a desired balance of properties.¹¹ For ceramic veneers, the restorations are always etched with hydrofluoric acid before bonding. The etching process enhances the roughness of

the porcelain surface by preferentially removing microscopic areas of glass between the leucite crystals of dental porcelain. This roughness increases the surface area, which increases the mechanical component of adhesion of the porcelain to a composite resin. However, it is well known that dental porcelains differ in the amount, distribution, and size of the leucite crystals.¹²

Leucite was originally added to dental porcelain to make it thermally compatible with the alloy. In retrospect, the presence of leucite allows the formation of a honeycomb appearance and micromechanical retention when porcelain is etched with HF. One may conclude that the presence of leucite in etched porcelain restorations is secondary to its originally intended purpose.

Studies have shown that proper etching of porcelain for bonding to composite resin depends on the leucite content, types and concentration of etchant used, and

Une bonne rétention des porcelaines feldspathiques utilisées pour la fabrication de facettes en céramique est cruciale, pour obtenir la meilleure force de lien entre la porcelaine et le composite. La qualité de la rétention dépend du type et de la concentration de réactif utilisé, du temps d'utilisation, ainsi que le volume de cristaux de leucite dans la porcelaine. Des cuissons répétées ont démontré un changement du volume des leucites dans la porcelaine, ce qui est critique au moment de la rétention de la porcelaine. **But** : Cette étude a évalué l'effet de la cuisson répétée de trois porcelaines contenant différents niveaux de leucite avec un lien en composite. **Matériels et Méthodes** : Les échantillons de porcelaines provenant de trois manufactures différentes ont été cuites une fois, cinq fois et dix fois, et ensuite préparées pour une rétention avec un composite. Les échantillons collés ont été testés pour leur résistance à se détacher. Les échantillons de porcelaine ont été aussi examinés pour leur microstructure au MEB. **Résultats** : Parmi les trois porcelaines testées, des différences significatives dans la force de liaison ont été notées. La force d'adhérence de chaque porcelaine est restée similaire après une, cinq ou dix cuissons. Des cuissons répétées n'ont pas modifiées sensiblement la porcelaine pour la rétention, mais chaque porcelaine offre une apparence unique. **Conclusion** : Deux porcelaines dentaires ont montrés une force d'adhérence supérieure par rapport à la troisième. Des cuissons répétées n'ont pas modifiées la force de liaison d'aucune des trois porcelaines. **Signification Clinique** : La force d'adhérence de la porcelaine pour une rétention avec un composite, très probablement ne diminue pas avec des cuissons répétées. Ainsi, de nombreuses cuissons de facettes en céramique peuvent être faites en toute tranquillité. Toutefois, la force d'adhésions entre la porcelaine et le composite varie considérablement entre les différentes porcelaines feldspathiques, utilisant un niveau de leucite variable, contenu dans la céramique pour facettes.

etching time.¹³⁻¹⁷ However, these studies did not take into account the effect of repeated firing of porcelain on the composite-porcelain bond. Porcelain veneers, fabricated for bonding, undergo from five to as many as seven firings before etching and bonding. This includes the first layer, known as the wash layer, main build up, second build up, correction build up, contact build up, and final glazing. Additional firing may be required based on the degree of difficulty, or if unexpected chipping or cracking of the porcelain occurs between firing stages.

Studies have shown that the leucite crystallinity grows with repeated firing and as the fired porcelain cools off.¹⁸⁻²¹ Hermanson¹⁸ noted that high expansion leucite crystals in dental porcelain can transform to other low-expansion crystalline forms of leucite. Mackert, Fairhurst, and Evans have performed extensive studies of leucite changes in dental porcelain.¹⁹⁻²¹ The Mackert and Evans²⁰ study of the very slow cooling of dental porcelains showed that leucite can increase in Ceramco or Ceramco II porcelains. In another Mackert and Evans²¹ study of Ceramco porcelain, leucite content decreased after repeated firing: After 10 firings, the decrease was about 3%, from a starting value of about 20.5% leucite, as determined by x-ray diffraction. Below 750°C, Mackert and Evans²¹⁻²² showed that leucite was unlikely to precipitate, even after a 15 minute hold time. The high leucite Optec HSP porcelain (Jeneric-Pentron, Wallington, CT USA) has been studied by Vaidyanathan et al.²³ When heat treatment was conducted for 1 hour at temperatures

between 650° and 925°C, the glass surrounding the leucite crystals reacted to form sanidine, the high temperature form of potassium feldspar (K,Na)(Si,Al)₄O₈. Sanidine crystals have lower thermal expansion than leucite crystals.

Barghi et al¹² investigated several variables involved in etching porcelain for bonding ceramic veneers. They studied both medium- and high-leucite content porcelains (Ceramco II and Fortress porcelains) and found that a gel hydrofluoric acid (HF) etchant led to higher bond strengths than a liquid form. Etching for 90-120 seconds produced similar porcelain-composite bond strengths. Significant differences were noted between the bond strength of the medium- or high-leucite porcelains when etched for 150 to 180 seconds. They used single-fired porcelain specimens in their study, which does not replicate the laboratory steps for firing and fabrication of ceramic veneers. If the intaglio surface and micromechanical retention formation of ceramic surfaces are affected by repeated firing of porcelain, it may become necessary to develop a new protocol for porcelain etching based on the number of firings. The present study was undertaken to see if feldspathic dental porcelains commonly used for fabrication of etched porcelain-bonded restorations are altered after repeated firing both in their etched appearance and shear bond strength to composite resin. Furthermore, we investigated the need for a new regimen for porcelain etching based on the number of firings.

Methods and Materials

Three commercially available feldspathic porcelains commonly used for fabrication of ceramic veneers were used in this study: Ceramco II (Dentsply Ceramco, Burlington, NJ USA), Willi Geller Creation (Jensen Industries, North Haven, CT USA), and Fortress (Myron International, Kansas City, KS USA). The first two are known as medium leucite content porcelain (approximately 20% - 27% leucite) and the third is known as high leucite content porcelain (approximately 50%). Square specimens (12mm x 12mm x 2mm) were pressed and fired to manufacturer's recommended firing temperatures. Specimens of each type of porcelain were divided into three groups and underwent repeated firings one, five or 10 times. The heating rate was 50°C/min and the holding time was 0.5 min followed by a cooling time of two minutes. Vacuum was applied throughout the firing cycles except for the last firing, emulating the glazing step conducted completely in air.

After firing, one side of each specimen was sandblasted with 25 to 50 µm alumina at 35 psi to remove the surface glaze. The samples were then etched for 90 seconds with a 9.5% buffered hydrofluoric acid gel (Porcelain Etchant, Bisco Inc., Schaumburg, IL USA). The 90-second etching time for medium and high leucite content porcelain was based on the findings of previously published investigations.¹⁴ The etched surface of each specimen was steam cleaned to remove the hexafluorosilicate and crystalline residue. Porcelain samples of each group were examined by SEM (Leo 435 VP, Cambridge, England). Secondary electron images were taken at 1K and 2K magnifications for comparison of the surfaces.

For the bond testing, a thin layer of unfilled BIS-GMA liquid resin (Porcelain Bonding Resin, Bisco Dental, Schaumburg, IL USA) was applied to wet the surface. Using an Ultradent bonding device (Ultradent, South Jordan, UT USA), a 2mm long cylindrically shaped composite resin (Z100, 3M ESPE, St. Paul, MN USA)

was light-cured for 40 seconds to each treated surface using a Demetron 501 curing light (Kerr Dental, Orange, CA USA). Bonded samples were stored in room temperature water for seven days before shear bond testing. For shear bond testing, an Ultradent Tester (Ultradent, South Jordan, UT USA) with a crosshead speed of 0.5mm/min was used. The shear bond strengths were compared using ANOVA ($p < 0.05$).

The fractured samples were visually examined to determine the mode of failure. Cohesive failures were defined as those occurring either within the composite resin or the porcelain. Adhesive failures were denoted for fractures at the porcelain-composite resin interface. Mixed failures showed both cohesive and adhesive fracture modes.

Results

After 10 firings, the Ceramco II and the Creation porcelain samples were noticeably rounded at the edges. The Fortress samples were much less rounded at the edges. (See figures 1,2,3)

The shear bond strengths for the porcelains to the composite resin are shown in Table 1. No significant differences were found among the shear bond strengths for porcelain samples fired one, five, or 10 times. However, significant differences were observed between the Creation porcelain and the other two porcelains. The Creation porcelain samples had the lower shear bond strength. The highest mean bond strength was measured for the high-leucite content porcelain (Fortress), but the bond strength was not significantly higher than the Ceramco II (medium-leucite) porcelain samples. The mode of fracture was primarily adhesive for Creation porcelain and cohesive for Ceramco II and Fortress porcelain.

Photomicrographs taken from SEM examination of the microstructures of the three dental porcelains are shown in Figures 4, 5, & 6. Each porcelain depicted a very unique topography after etching that remained relatively unchanged upon repeated firing. Differences were

Table 1 — Porcelains Tested and Results

Shear Bond Strength (MPa) after repeated firing (std deviation)				
Porcelain	Firing Temp (°C)	1 firing	5 firings	10 firings
Creation	930	16.9 (2.4)	17.7 (1.1)	16.6 (2.8)
Ceramco II	940	24.3 (4.0)	23.9 (4.0)	20.5 (4.0)
Fortress	1060	23.7 (3.4)	21.0 (3.3)	22.7 (3.7)

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Figure 1 – Creation, Ceramco II, Fortress (1 firing)



Figure 2 – Creation, Ceramco II, Fortress (5 firings)



Figure 3 – Creation, Ceramco II, Fortress (10 firings)

Figures 1, 2 & 3 – All specimens, most notably Creation; became rounded at the periphery.



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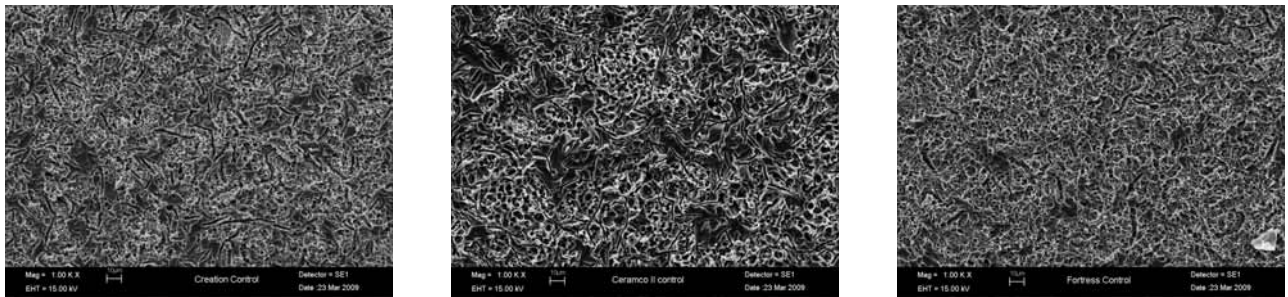


Figure 4 – SEM images, 1 firing; Creation, Ceramco II, Fortress (X1000)

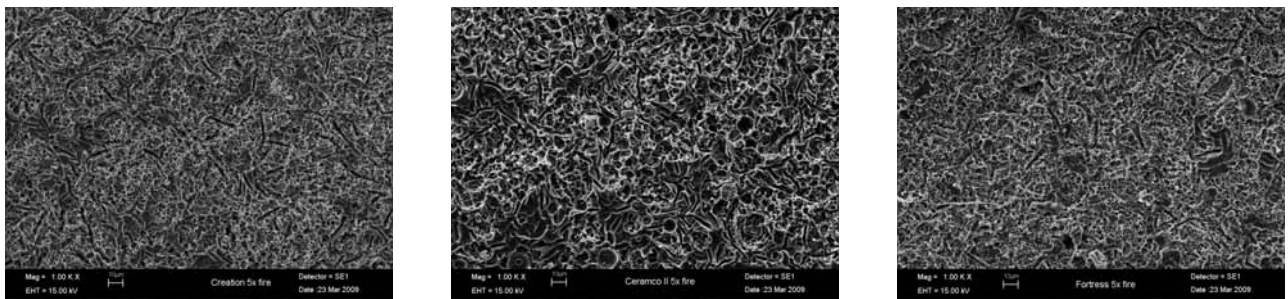


Figure 5 – SEM images, 5 firings; Creation, Ceramco II, Fortress (X1000)

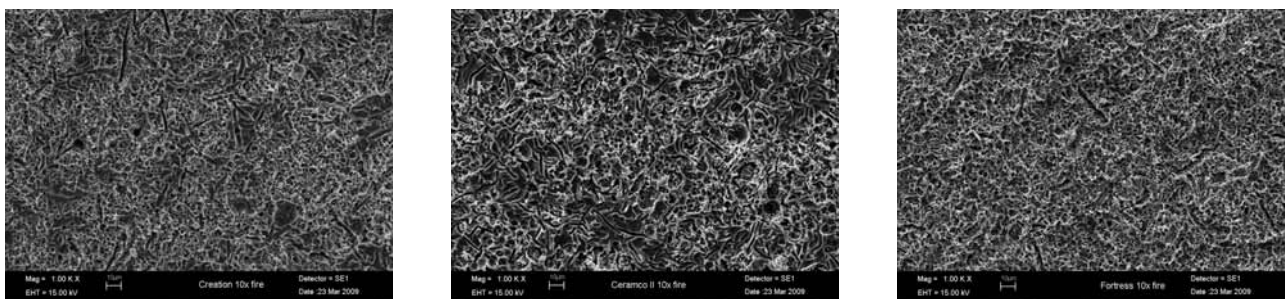


Figure 6 – SEM images, 10 firings; Creation, Ceramco II, Fortress (X1000)

Figure 4, 5, 6, from left – Creation, Ceramco II & Fortress. Note: Shallow etched surface for Creation porcelain. The overall microstructure of each porcelain did not noticeably change after repeated firings

observed among the three porcelains. Distinct features were noted where glass was etched and the leucite grains were removed from the matrix of glass as the result of etching. The honeycomb-etched pattern for Creation porcelain appears shallow compared to Ceramco II and Fortress samples. The shallower etched surface may have contributed to the lower adhesive shear bond strength that was measured for this porcelain. The Ceramco II and Creation porcelain views had areas that appeared relatively smooth and leucite free; however, the Ceramco II etched samples seemed to have deeper etched features.

Discussion

The surfaces of the etched porcelains appeared very rough, with micro-retention when viewed microscopically. Etching with HF gel as performed in this in vitro study dissolved so much of the glass phase that the superficial

leucite crystals were removed when the samples were steam cleaned, leaving the rough, honeycomb-like features on the surface of the porcelain. The smoother areas seen on the Ceramco II and the Creation porcelains are areas where no leucite crystals were present. The smooth areas are where grains of an ad-mix glass (non-leucite containing glass) were present. Glasses are combined with the leucite-containing frits to make dental porcelain. The Fortress porcelain, known for having a high leucite content, and therefore less of other glass powders, did not have as many smooth areas.

Because of the overall roughness of the etched surfaces, small changes in the leucite content from repeated firing would not be discernible. This is supported by Mackert and Evans' finding that showed only a decrease of 3% in the leucite content in their study of repeated firings. The potential change in leucite

content was not determined for comparison to earlier studies. However, the appearance of the etched surfaces and the bonding studies indicated that the bonding of any porcelain was unaffected by the repeated firing.

Leucite crystals and glass are formed from potassium feldspar above 1150°C. At lower temperatures, leucite crystals are thermodynamically unstable, but the kinetics of dissolution of leucite to form either glass or feldspar crystals are so slow that the leucite remains in the porcelain. The kinetics of leucite dissolution are especially complicated because other glasses are combined with the leucite-containing glass powder in a porcelain. Usually, at the normal dental firing times and temperatures (900° to 950°C for less than 10 minutes), the leucite contents is expected to be unchanged. This stability enables a thermal expansion match of the dental porcelain to a high expansion dental alloy (usually gold, palladium, or nickel based).

Although the present of leucite is a major contributing factor in porcelain-composite bond strength, other factors such as the depth of the micro morphology developed as a result of etching appears to play an important role. The lower shear bond strength of the medium-leucite content Creation porcelain samples correlates with the shallower depth of the etch and the smoother surface features presented, as compared to the other two porcelains. This observation is furthermore supported by the adhesive mode of fracture for the Creation samples. For the other two porcelains, the fractures were cohesive, meaning the porcelain fractured; therefore, the interfacial bonding strength was higher. Clinically for retention of etched porcelain bonded restorations, a cohesive fracture is more desirable than an interfacial bond failure.

Conclusion

The repeated firing of dental porcelain to its original firing temperature, up to 10 times, did not reduce the bond strength of the porcelain to a composite resin. Higher shear bond strengths were achieved with Ceramco II or Fortress porcelains as compared to Creation porcelain. The morphological microstructure of each porcelain was not affected by repeated firing.

Author declaration

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About the Author

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A Clinical Report on Surgical Obturators

Les obturateurs chirurgicaux, un rapport clinique



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Abstract

Four major problems are encountered in the restoration of the acquired maxillary defects with conventional surgical obturators:

1. Respiratory
2. Vertical support
3. Hygiene
4. Uncomfortable working environment for the clinicians

The respiratory problems are related to the unilateral or bilateral obturation of the resection cavity and the nasal respiratory tracts using gauze pads and (open mouth appearance), especially in the Aramany Class I, IV and VI. The lack of vertical support to the palate on the resection side is due to the compressibility of the gauze pads, especially in large resections. The lack of hygiene is due to the accumulation of the secretions and food debris within the gauze pads. An uncomfortable working environment for the clinicians is due to these unhygienic conditions and malodours are attributable to the classical surgical obturators on the removal appointment. The technique described in this article combines the classical surgical obturator with the Spiessl technique and has been minimizing the abovementioned problems in our clinics for thirty years.



Introduction

Following the surgical treatment of maxillary tumors, the use of surgical obturators has been the standard prosthetic reconstruction procedure in our clinics since 1975.

Surgical obturators are used during the first postoperative week^{1,2,6,9,10} to minimize the esthetic, functional and psychological problems arising from maxillary resections.^{7,12,13,16,17,18} Surgical obturators hold a very important place in the lives of patients who receive maxillary resections due to tumors of the upper jaw^{1,2,3,4,8,11} Rehabilitation steps and surgical obturators are planned and prepared before surgery. Surgical

obturators are inserted at the end of the surgery in the operating room and used during the first postoperative week. In this report the fabrication procedure of “combination type of surgical obturator” is described and a comparative clinical evaluation with classical surgical obturators is made.

Clinical report

The combination type surgical obturator is prepared in 9 steps:

1. ORL team forwards the patient (Figure 1) and the operation plan indicating the approximate tumor and resection borders to the maxillofacial prosthetic team.

On rencontre quatre grands problèmes dans la restauration des défauts acquis du Maxillaire, avec des obturateurs conventionnels chirurgicaux :

- 1 . Respiratoire
- 2 . Support vertical
- 3 . Hygiène
- 4 . Environnement inconfortable de travail pour les cliniciens

Les problèmes respiratoires sont liés à l'obturation unilatérale ou bilatérale de la cavité de résection et des voies respiratoires nasales, en utilisant des tampons de gaze, et, (la bouche étant ouverte) spécialement dans la zone Aramany Classe I, IV et V. Le manque de support vertical pour le palais du côté de la résection est du à la compressibilité des tampons de gaze, spécialement dans les résections plus importantes. Le manque d'hygiène est du à l'accumulation de sécrétions et de débris dans les tampons de gaze. Un environnement inconfortable de travail pour les cliniciens est du à ces mauvaises conditions d'hygiène ; et ces mauvaises odeurs sont attribuables à des obturateurs classiques chirurgicaux au moment des rendez-vous pour leur retrait. La technique décrite dans cet article combine la chirurgie classique avec la technique de Spiessl qui a été de minimiser les problèmes mentionnés ci-dessus dans nos cliniques, durant ces dernières trente années.

2. Irreversible hydrocolloid impressions (Tropicalgin, Zhermack, 45012 Badia Polesine, Rovigo, Italy) of both jaws are taken (Figure 2) and models are prepared in dental Stone (Sheraalpin, Shera Werkstoff-Technologie Gmbh & Co, KG).
3. The tumor borders and the possible resection borders are drawn on the model. The upper and lower models are mounted on an articulator before any modification which could alter the occlusion.
4. Teeth in the resection side are removed from the maxillary model and a *semi* resorbed alveolar crest shape is carved into the model. The design of the palatal plate is made.
5. According to the urgency of the case, a palatal plate is fabricated in heat or self curing acrylic resin. Retention holes are prepared for wire fixation of the
- infrastructre of the surgical obturator and the plate is verified on the articulator for premature contacts (Figure 3). The plate is then delivered to the operating room for sterilization.
6. Following surgery, an endotracheal tube of 6-8 mm (Figure 4) (Chilecom reinforced endotracheal tube, oral/nasal, Chilecom Medical Devices Co, Ltd. 106 Boyi Road, Boluo, Guangdong, 516100 CHINA) is inserted from the apertura piriformis down to the rhinopharynx, to shape the intraobturator nasal respiratory passages (Figure 5).
7. Excessive undercuts in the surgical cavity are blocked out (Figure 6) with Spongostan (AgnTho's AB, Pyrolayagen 3 Pyrolavägen 3 181 60 Lidingo, Sweden).
8. Optosil comfort putty (Heraeus, Kulzer GmbH, Gruner Weg II, 63450 Hanau, Germany) is mixed in correct



Figure 1 – Adenocarcinoma of palate



Figure 2 – Irreversible hydrocolloid impression with tumor borders



Figure 3 – Resection side should be out of occlusion



Figure 4 – The endotracheal tube



Figure 5 – Positioning of the endotracheal tube on right side for respiratory tract preparation



Figure 6 – Block out and relief of the surgical cavity with spongostan

proportions with its catalyst and the surgical cavity is obturated with silicone putty. Before the silicone putty sets, the palatal plate is applied to the remaining maxilla in the correct position and the final shape is given to the putty. Then the palatal plate is wire-ligated (bone wire soft, diameter 0.5 mm. TUT instruments, GmbH, Aspen 13, D-78532. Tutlingen.) to the remaining teeth. (Figure 7).

9. The endotracheal tube is removed at the end of the procedure. The intraobturator nasal respiratory passages are thus formed (Figure 8).

Discussion

Several procedures were tried to compensate for the problems arising from the surgical removal of the maxillary tumors to improve speech, retention of the appliance^{5,14,15} to decrease the weight of the appliance^{5,12,13,15,16,17,18} with new materials and procedures^{6,7} and to support the soft tissue grafts to

minimize the scar tissue and retraction of facial tissues^{10,19}. The problems related to hygiene, obstruction of the nasal respiratory tracts and the vertical stability on the resection side, especially in large cavities, have not been solved so far. However, the combined surgical obturators, utilized in Aramany Class I, IV and VI²⁰ minimized these problems (Table 1). These “combined surgical obturators” contribute to a better hygiene and retention of the appliance as well as improved breathing for the maxillectomy patient. The use of silicone putty as the obturation material also easily compensates for the gaps between the surgical and prosthetic borders, when the presurgical plan, actual surgical borders and prosthetic borders do not coincide.

Summary

The “Combination type of surgical obturator” is constructed of a palatal plate, wire ligatures, silicone putty and spongostan to block out the undercut sections



Figure 7 – Positioning of the palatal plate



Figure 8 – Positioning of the silicone putty and removal of the endotracheal tube.



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Table 1 — Comparison of three different type of surgical obturators

	Palatal plate	Wire retention	Suprastructure	Nasal respiratory tracts	Hygiene
Classical obturators	+	+	Gauze pad	–	–
Spießl obturators	–	–	Silicone putty	–	+
Combination type obturator	+	+	Silicone putty	+	+

of the surgical cavity. It allows nasal respiration thanks to its inbuilt intraobturator respiratory canals. The “Combination Type of Surgical Obturator” is cleaner than “the classical surgical obturator”, since gauze pads are not used during its construction, and more stable than the all-putty “Spießl Obturator” since it is retained by a plate and wire ligatures.

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Define, use and evaluate teaching objectives

Définir, utiliser et évaluer les objectifs en enseignement

Whether you're a keynote speaker at a world congress, or addressing colleagues in a small auditorium, or giving a hands-on course to a cluster of learners, or even sitting next to a 4-year old at the kitchen table and have him draw a house, you will need to have some idea of where you want to go with them, you will need an **aim**, an ultimate **goal**. You should know where you want your target audience to end up if you wish to get them there effectively. And the only way you'll know that your audience has arrived at your **goal**, is by having them somehow prove it to you. I realize this isn't possible with a speech or when addressing a filled lecture hall, but certain strategies can still be applied.

The **transmitting** of new information to a receiver is called teaching and, conversely, the **receiving** and internalizing of said message from a transmitter is called learning. So the entire experience is a **symbiotic**, give-and-take series of adjustments between teacher and learner. There are always two entities involved in such a situation.

Teaching methods and strategies differ according to the age, knowledge and experience of the learner it goes without saying, but the **approach** is surprisingly similar no matter the topic, the target audience or the field. Such methods can be transposed to training programmes of personnel/staff/management and certainly for child rearing purposes. Knowledge of certain fundamentals of the teaching-learning synergy is most helpful in many circumstances of everyday life.

Let's take that 4-year old at the kitchen table for example. You could sit him down and ask him to draw a house, then leave. When you've returned 10 minutes later, nothing has happened during your absence. The most obvious reason is that you didn't give the child any equipment to work with: no crayons or paper, so you fetch some of those and leave the child with the **tools** you consider sufficient for him to draw a house. Again, when you come back, he hasn't accomplished anything. It becomes clear that the child needs far more than what you've provided for him. So you start thinking to yourself: Does he understand what I'm asking of him? Can he even hear me? Do we speak the same language? Does

he have any concept of what a house is? Does he have any motor skills to draw a house? Has he ever handled crayons before? Has he ever drawn before? And so on. In other words, does he have the **pre-requisites** to draw a house?

If not, then that is the point where you begin teaching. You must ensure that he fully understands what you are saying, and that, given his age, his basic needs are met; that he isn't hungry, thirsty, wanting to go to the bathroom, distracted by something, tired, and that he is looking forward to working with you, i.e. **motivated**. If this child is unknown to you, you'll want to judge his mental capacity and motor skills before proceeding. All of the above constitute **pre-conditions**.

Sitting down with the child, you now engage in measuring his degree of dexterity (**pre-evaluation**) He holds the crayon like a dagger, and he is zigzagging it all over the place – stabbing the paper with jagged ferocity, the table, the walls, etc. So before he can draw that house, you'll need to teach him how to hold the crayon properly, how to stay within the limits of the sheet of paper, how to control his strokes with the crayon, most likely through your **guidance**.

Next, you'll demonstrate how to form a rectangle by drawing 2 parallel, horizontal lines of approximately the same length at a certain distance from each other, and then connect them with 2 other parallel, vertical lines, through **example**. You'll probably want to add a triangle for the roof, and maybe a chimney and a window or 2. This can serve as encouragement for the child to be creative. You could ask if he wants to add something in the sky or in front of the house. (suggestion is one of so many strategies)

Once the tot has mastered these aptitudes, he can now proceed to drawing a house. Should you now safely leave the room, or should you stick around and watch the little boy go about the task? His first attempts will no doubt be erratic and he'll need more interventions on your part as well as encouragement. You had better stick around if you want to finally see a house after all of your efforts!

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he is 6 years of age. You've learned that you need to supply him with pencil and paper, and you trust that he'll draw within its borders and that he knows how to draw a proper house. You are both ready to move on to a more complex, different task. A similar sequence will take place for this next step as well...and so on and so forth.

The little boy is all grown up now and ready to learn a new skill at a hands-on course. Do you think that the teaching approach will be drastically different from when he was a youngster? Not really. The teacher still needs to determine the **pre-conditions** and **pre-requisites** of her pupils; still needs to supply her pupils with all of the necessary **tools** to acquire the knowledge, including written materials, visual aids, demonstrations, explanations, question and answer periods, etc. And the teacher, in order to make certain that her pupils have indeed acquired said knowledge, will need to evaluate her pupils. This **evaluation** however takes place not only at the end of the teaching/learning process, but throughout, in punctual fashion, at various stages, before the final, all-encompassing one. Since the idea is to guarantee the learner's success by correcting any important errors that might misdirect the acquisition of new knowledge...adjust as you go. This not only measures how much your pupils have learned, it tells you where you, as a transmitter of the message, should adjust your own **objectives** and **methods**.

This interactive dynamic is the crux of teaching objectives. Now that your **goal** as a teacher/instructor/speaker has been defined, what next?

Your objectives should naturally spring from the different stages of a learning process and be defined in **active terms**, terms that will then correspond to the evaluation process, something that you, as teacher/evaluator, will be able to **observe** and **measure**.

There are different categories or types of objectives, starting with the most general, then sub-dividing into more and more specific ones. If you think, for instance, that a person reading one of your objectives would ask you: "What do you mean by that?", then you probably need to get more specific.

Example

Goal: A 4-year old will draw a house on a sheet of paper using crayons

(This is what you want to see at the end of your session/course/programme)

Objectives:

1. Draw either a rectangle or a square

- a) Trace 2 parallel horizontal lines

- a.1 lines must be at a workable distance
- a.2 lines must be of approximately the same length
- a.3 lines must be within the borders of the paper
- b) Trace 2 parallel vertical lines connecting to the horizontal lines to make a rectangle or square
 - b.1 vertical lines must meet the horizontal lines
 - b.2 lines shouldn't extend beyond the corners of the rectangle or square
 - b.3 lines should be straight

2. Draw a roof on the house

- a) Draw any geometric shape that represents a roof
- b) Roof must be of realistic proportion to the house

3. Draw additional elements to embellish the house

- a) Draw a chimney on roof
- b) Draw windows of any shape
- c) Draw elements around the outside of the house
 - c.1 Draw trees and flowers
 - c.2 Draw a sky and clouds
 - c.3 Draw smoke from chimney
 - c.4 Draw animals or people
 - c.5 Demonstrate originality in the type and number of elements

You get the idea. Notice how objectives can be general and become quite specific where necessary. But they nevertheless all flow naturally from the main goal and they use **verbs/actions** to define themselves, things that are observable, therefore measurable. On a more intellectual plane, a verb could be: **define, enumerate, identify, etc.** In a practical course, the objective might expect the learner to **manipulate, shape, use an instrument correctly** (FYI this last word 'correctly' is begging to be specified), etc.

You will need to **observe** the results of your teaching in your evaluation, to see something concrete, to recognize a newly acquired knowledge or capacity in your pupil, whether in his mental process via written answers, or a change in his behavior, such as physical manipulation, etc.

The secret is, once you've defined your objectives, you've also determined how you're going to evaluate the learner's progress. You need only refer to your more specific objectives to determine whether your criteria have been met. So the more explicit the objectives, the more evaluation criteria you'll have. I'll repeat: evaluation is not merely a means to grade a student, it is also a mechanism to assess your own objectives and methods.

And finally, objectives are not about the teacher, they're about the learner.



IN MEMORIAM

Dr. Michael Balanko, one of Dentistry's colorful characters and Life Member of CARDP passed away in Vancouver at the age of 91 on December 22, 2011.

Mike Balanko had a long and distinguished dental career. He graduated from the University of Oregon in 1953 and began practicing in Vancouver, B.C. Mike made a significant contribution to organized dentistry. He was involved in organizing the BC Chapter of the Academy of General Dentistry; and was one of the first Presidents. For eight years, he was the National Director for Western Canada AGD and Regional Vice- President for three years. Mike was involved with the BC College Annual Convention for many years, serving as Registration, Scientific, and General Chairman. He was renowned for his ability to attract world class dental speakers to Vancouver and laid the groundwork for the outstanding Pacific Dental Conference held in Vancouver each year. Mike was also a Director of the BC Dental Association in the early 1960's; an Examiner for both the BC and the National Dental Board; and acted as Chief National Examiner for several years. Mike was a member of numerous study clubs, including the Vancouver Society of Restorative Dentistry and Vancouver Ferrier Gold Foil. He was a lifelong member of the Canadian

Dental Association, American Academy of Gold Foil Operations, American Academy of Operative Dentistry; and served as President of CAP before the amalgamation with CARD.

Mike also made a significant impact in the area of dental education. He was a part-time clinical instructor in restorative and operative dentistry at UBC for over twenty years. In 1989, Mike went to the University of Manitoba for three years as Head, Department of Operative Dentistry, leading several projects on composite research and published several scientific papers during this time. After retiring from dental practice, he was a consultant with Bisco Canada and K&K Labs. In addition to his love of telling colorful jokes, Mike was passionate about fishing, hockey and baseball, and played hockey into his late 70's.

He was a dedicated and loving father and grandfather, attending school and sports functions at every opportunity. Mike was predeceased by his wife, Helen in 2005 and is survived by his three children, Michael, Anita, and John; and six grandchildren, Kelsey, Lauren, Jordan, Alex, Desiree, and Sam.



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Si vous avez des commentaires ou des suggestions ou si vous désirez vous impliquer davantage dans notre Journal, veuillez communiquer avec le Rédacteur en chef:

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† M. Kern et al. "Ten-year results of three-unit bridges made of monolithic lithium disilicate ceramic"; Journal of the American Dental Association; March 2012; 143(3):234-240.
†† Mean observation period 4 years IPS e.max Press, 2.5 years IPS e.max CAD.
See The IPS e.max Scientific Report Vol. 1 (2001-2011).


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Programme scientifique 2012 Scientific Program

20th Annual Meeting – 20^{ième} Congrès annuel

September 6-8 septembre

Nouvelle Écosse - Halifax - Nova Scotia

Charting the Course for the Future!

Framer la voie du futur!

Thursday, September 6th

9:00 am - 4:00 pm Dr. Joseph Carpentieri - [INTRODUCTION TO CAD/CAM AND DIGITAL DENTISTRY 2012 - A Hands-on Lecture](#)

Friday, September 7th

8:15 am Dr. Maureen Andrea - CARDP President

8:23 am Dr. Peter Thomson - Scientific Program Chair

8:26 am Dr. Mark Sutherland - Clinic Chair

8:30 am Dr. George Cho - [Provisional Techniques for Traditional and Implant Dentistry](#)

9:30 am Dr. Charles Shuler - [Oral Lesions: An Anatomic Approach to Differential Diagnosis](#)

10:30 am - 11:00 am Refreshment Break with Sponsors - Exhibit Hall

11:00 am Dr. Izchak Barzilay - ["3DP" - Digital Implant Planning, Placement and Prosthetics](#)

12:00 Noon - 1:30 pm Luncheon with Sponsors - Exhibit Hall

1:30 pm Dr. Jim McKee - [Occlusion in the Restorative and Specialty Practice in 2012](#)

2:30 pm Dr. Andre Ritter - [Contemporary Trends on the use of Direct Posterior Composites](#)

3:30 pm - 4:00 pm Refreshment Break with Sponsors - Exhibit Hall

4:00 pm - 5:00 pm Dr. Jim Kessler - [New Materials and Technologies-Is it Time to Jump In?](#)

Saturday, September 8th

8:30 am - 8:50 am Dr. Jim Kessler - [Reverse-engineered, Defect-driven Preparations for Bonded Restorations](#)

8:50 am - 9:10 am Dr. Richard Price - ["How to Choose the Right Curing Light for your Office and Effectively use it"](#)

9:10 am - 9:30 am Dr. Rob Roda - [Prognosis of Fractured Teeth: Considerations for Treatment Planning](#)

9:30 am - 9:50 am Dr. Emmanuel Rajczak - [Why do Teeth Crack?](#)

9:50 am - 10:30 am Refreshment Break with Sponsors - Exhibit Hall

10:30 am - 10:50 am Dr. Tim Hess - ["The Dirty Little Secret"--Perimplantitis Caused by Excess Cement](#)

10:50 am - 11:10 am Dr. Peter Taylor - [The Quest for Predictable Esthetic Tissue - Management for Fixed Restorations](#)

11:10 am - 11:30 am Dr. Peter Walford - [Succeeding with Multisurface Composites](#)

11:30 am - 11:50 am Dr. Ron Zokol - [Essential Criteria for Large Vertical Dimension Bone Grafting - "It May Not Be What You Think"](#)

11:50 am - Noon Dr. Maureen Andrea - Meeting Conclusion

Dr. Ashok Varma - Vancouver 2013 Conference Announcement & Video

12:00 Noon - 2:00 pm CARDP Members Luncheon

2:00 pm - 5:00 pm [Table Clinics](#)



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Programme scientifique 2012 Scientific Program

20th Annual Meeting – 20^{ième} Congrès annuel

September 6-8 septembre

Nouvelle Écosse - Halifax - Nova Scotia

Charting the Course for the Future!

Fraye la voie du futur!

TIME		Wednesday, September 5, 2012	LOCATION
3:00 PM	24 HRS	Kayaking in Lunenburg with the Shaffner's	Ocean View Cabins, Lunenburg, NS (Transfer Oon Own)
6:30 PM	11:00 PM	CARDP Executive Dinner Meeting	44 North, Private Dining Room
Thursday, September 6, 2012			
24 HRS	4:00 PM	Kayaking in Lunenburg with the Shaffner's	Ocean View Cabins, Lunenburg, NS
6:45 AM	4:00 PM	Golf @ Chester Golf Course	Meet in Lobby of Halifax Marriott, Hotel 6:45 am
9:00 AM	4:00 PM	Kayaking @ St. Margaret's Bay/Peggy's Cove	Meet in Lobby of Halifax Marriott, Hotel 8:45 am
9:00 AM	4:00 PM	Hands On Course	Acadia Ballroom
12:00 AM	11:59 PM	Scientific Set-up	Nova Scotia Ballroom A/B/C
8:00 AM	6:00 PM	Trade Show Set-up	Halifax Ballroom
11:00 AM	8:00 PM	Registration	Halifax Ballroom Foyer
3:00 PM	Finish	Journal Meeting	Presidents Suite
6:00 PM	10:00 PM	Eat, Meet & Greet, Welcome Buffet with Sponsors	Halifax Ballroom & Nova Scotia D
Friday, September 7, 2012			
7:00 AM	5:00 PM	Registration	Halifax Ballroom Foyer
7:00 AM	8:30 AM	Breakfast with Sponsors	Halifax Ballroom & Nova Scotia D
8:30 AM	5:00 PM	Scientific Sessions	Nova Scotia Ballroom A/B/C
9:00 AM	5:00 PM	Partner's Program – Grand Pre Winery Tour	Meet in Lobby of Halifax Marriott Hotel 8:45 am
10:30 AM	11:00 AM	Break with Sponsors	Halifax Ballroom & Nova Scotia D
12:00 PM	1:30 PM	Lunch with Sponsors	Halifax Ballroom & Nova Scotia D
3:30 PM	4:00 PM	Break with Sponsors	Halifax Ballroom & Nova Scotia D
6:30 PM	10:30 PM	Halifax Harbour Tour and Lobster Ceilidh	Murphy's on the Water (Meet in Lobby 6:00 pm)
Saturday, September 8, 2012			
7:00 AM	12:00 PM	Registration	Halifax Ballroom Foyer
7:00 AM	8:30 AM	Breakfast with Sponsors	Halifax Ballroom
7:00 AM	8:30 AM	CARDP Member Breakfast	Acadia Ballroom (Lobby Level)
8:30 AM	12:00 PM	Scientific Sessions	Nova Scotia Ballroom A/B/C
9:50 AM	10:30 AM	Break with Sponsors	Halifax Ballroom
12:00 PM	2:00 PM	CARDP Lunch	Acadia Ballroom (Lobby Level)
2:00 PM	4:00 PM	High Tea (Partner's Program)	44 North, Private Dining Room
2:00 PM	5:00 PM	Table Clinics	Nova Scotia "C & D"
6:30 PM	7:30 PM	President's Reception	Halifax Ballroom Foyer
7:30 PM	12:00 PM	President's Gala - Dinner Dance	Halifax Ballroom
Sunday, September 9, 2012			
9:00 AM	12:00 PM	Clinic and Essay Meeting	44 North, Private Dining Room

Hands On Course – Cours pratique

INTRODUCTION TO CAD/CAM AND DIGITAL DENTISTRY 2012
INTRODUCTION À LA DENTISTERIE NUMÉRIQUE ET LA CAO/FAO 2012
A Hands-on Lecture - Presented by Dr. Joseph Carpentieri



Dr. Joseph Carpentieri

Thursday, September 6th, 9:00 am - 4:00 pm

Halifax Marriott Harbourfront Hotel - Acadia Ballroom

7 CE credits to be issued

Breaks and a one-hour lunch to be provided

Biography:

Dr. Carpentieri, D.D.S. limits his practice to Prosthodontics. He graduated Magna Cum Laude from the University of Maryland/Baltimore College of Dental Surgery. In 1977, Dr. Carpentieri was awarded a specialty certification in Prosthodontics from Albert Einstein College of Medicine-Montefiore Medical Center. He is also a Fellow in the Department of Periodontology and Implant Dentistry at New York University College of Dentistry. A published author, Dr. Carpentieri has also lectured extensively across the country.

COURSE OUTLINE AND LEARNING OBJECTIVES:

The purpose of this hands-on lecture is to present a thorough and concise overview of CAD/CAM and Digital Dentistry; it has absolutely revolutionized the practice of clinical dentistry and significantly changed what we do and how we do it.

- Evidenced-based perspective of advantages/disadvantages or benefits and limitations of these technologies
- Review new workflow options from both a conventional and digital perspective
- To understand how a CAD/CAM manufactured prosthesis provides us with the most cost-effective modality for most implant restorations
- Present literature supported rationale for utilization of CAD/CAM abutments and full arch CNC frameworks
- Discuss step-by-step clinical guidelines, abutment and material choice, and review controversies associated with zirconia abutments with new guidelines
- Review other controversies including third party abutments, the zirconia-titanium interface, veneering of various framework designs
- Introduce concept reverse engineering; one of the hottest topics in implant dentistry today
- Introduce the players; making this a diverse presentation of all implant companies
- Review BIOMET 3i's CAD/CAM Portfolio; ie, BellaTek" Encode Impression System. How does this company fit into this space and why is it different?
- Demonstrate integration of digital impression-taking-review of devices
 - o How to select a scanner?
 - o Does it really work?
 - o Benefits to patient and practice?

Learning Objectives:

To increase knowledge, confidence and predictability that will lead to improved aesthetic and functional patient outcomes.





Scientific Meeting Speakers – Conférenciers

Friday Speakers



Dr. George Cho

Topic: *Provisional Techniques for Conventional and Implant Dentistry*

Time: 8:30 am – 9:30 am

Synopsis:

Factors of occlusion, tooth preparation, function, phonetics, soft tissue manipulation and especially esthetics, can all be evaluated

through the fabrication of a well-made provisional restoration. It is an important tool of communication to the patient, laboratory, and can help the dentist to anticipate problem esthetic areas. Factors of soft tissue management around implants will be discussed to optimize gingival architecture, papilla management, and implant crown contours utilizing provisional restorations. A technique will be presented to fabricate multiple-unit esthetic custom provisional restorations with all the characteristics of natural teeth.

Learning Objectives:

- Fabricate multiple-unit esthetic custom provisional restorations with all the characteristics of natural teeth.
- Fabricate implant provisional restorations.
- Discuss the ideal gingival architecture.
- Develop the implant coronal and subgingival contours.
- Manipulate implant soft tissue form with contours of implant restorations.

Biography:

Dr. George Cho received his dental degree from the University of Southern California, School of Dentistry in 1987. He graduated in 1990 from the Advanced Education in Prosthodontics Program at the Herman Ostrow School of Dentistry of USC, and has since been a full time faculty member while maintaining a private practice limited to Prosthodontics in Torrance, California. He is an Associate Professor in Restorative Sciences, Co-Director of Advanced Education in Prosthodontics and the Predoctoral Director of Implant Dentistry. He has published articles and lectured on the topics of Restorative Dentistry and Dental Materials.



Dr. Charles Shuler

Topic: *Oral Lesions: An Anatomic Approach to Differential Diagnosis*

Time: 9:30 am – 10:30 am

Synopsis:

This presentation will guide the participants to develop an approach for the differential diagnosis of lesions of the soft tissues of the oral cavity through evaluation of key features of the lesions and reference to the anatomy/histology of the intraoral site. It is not important to make the clinical diagnosis of any oral lesion the first time it is observed but rather to consider the range of possible diagnoses and establish a priority for them. Procedures that lead to a definitive diagnosis will be discussed and the rationale for selecting a particular procedure introduced. This presentation will use specific clinical cases to demonstrate the steps involved in generating a thorough assessment of the lesion.

Learning Objectives:

- Recognize pathologic changes in soft tissues.
- Evaluate lesions in a standardized format based on clinical examination strengths.
- Develop a process for generating a differential diagnosis based on the anatomy and histology of the site.
- Understand the application of additional procedures to reach a definitive diagnosis and determine an approach to treatment.
- Apply the process to clinical cases to reinforce this new approach.

Biography:

Dr. Shuler is the Dean of the Faculty of Dentistry of the University of British Columbia. Prior to being appointed at UBC he was a faculty member at the University of Southern California for 18 years. He also served there as Director of the graduate program in Craniofacial Biology and Associate Dean for student and academic affairs. Dr. Shuler received his D.M.D. from Harvard School of Dental Medicine, his Ph.D. in Pathology from the University of Chicago and his Oral Pathology education at the University of Minnesota and the Royal Dental College, Copenhagen, Denmark. He has been active in assessing and managing clinical Oral Pathology patients with soft and hard tissue lesions. He maintains an active research program for Dental and Craniofacial Research.



Dr. Izchak Barzilay

Topic: *"3DP" - Digital Implant Planning, Placement, and Prosthetics*
(Fellow CARDP Member 1991)

Time: 11:00 am – 12:00 noon

Synopsis:

This presentation will showcase digital implant dentistry in its many forms. It will look at placing implants

in difficult situations and then restore those implants using a digital approach for design and manufacturing. Angled implants, planning software, digital impressions, and final restorations will be presented in a fast paced manner.

Learning Objectives:

- Use different planning softwares to decide on the best implant choice and placement location.
- Use CT guided placement of angled implants through guides without flaps in situations of minimal bone.
- Use digital technology to collect information so restorations can be made without conventional impressions.

Biography:

Dr. Barzilay received his D.D.S. from the University of Toronto in 1983, a Certificate in Prosthodontics from the Eastman Dental Center in Rochester, NY in 1986, and a M.S. from the University of Rochester in 1991. He is currently Head of the Division of Prosthodontics and Restorative Dentistry, Mt. Sinai Hospital, Toronto; Assistant Professor, University of Toronto, Adjunct Assistant Professor, Division of Prosthodontics of the Eastman Department of Dentistry, University of Rochester; Prosthodontic Examiner for the Royal College of Dentists of Canada. He also serves on advisory boards and editorial councils and is in private practice limited to Prosthodontics and Implant Dentistry in Toronto. He has published on various topics and been awarded several awards and Fellowships.



Dr. Jim McKee

Topic: *Occlusion in the Restorative and Specialty Practice in 2012*

Time: 1:30 pm – 2:30 pm

Synopsis:

Occlusion continues to be a critical factor in the success or failure of many dental cases and yet occlusion is perhaps the least understood discipline in our profession. Historically, the approach to occlusion has focused at the tooth level and addresses how teeth should contact in both vertical and horizontal mandibular movements. This approach has led to inconsistent results. Today, current occlusal concepts focus on both the teeth and the TM joints to provide a new level of predictability for the restorative and specialty practice.

Learning Objectives:

- Develop a protocol to use for every patient to determine the occlusal and TMD risk.
- Determine what diagnostic records are necessary and how to collect the information efficiently.
- Establish treatment planning options for both simple and complex occlusal/TMD cases.

Biography:

Dr. McKee has been in private practice since 1984 in Downers Grove, Illinois. His practice emphasizes the treatment of occlusal problems, TMD and advanced restorative needs. In addition to his practice, Dr. McKee has lectured internationally and developed study clubs in the United States and Canada. He is currently a faculty member at the Piper Education and Research Center in St. Petersburg, Florida.



Dr. André Ritter

Topic: *Contemporary Trends on the Use of Direct Posterior Composites*

Time: *2:30 pm – 3:30 pm*

Synopsis:

This presentation will summarize the current uses of posterior composites and discuss clinical solutions for common problems.

Learning Objectives:

- Identify the best cases for using posterior composites.
- Understand the advantages and disadvantages of current resin composite systems used for posterior restorations.
- Apply clinical solutions to address common problems associated with the use of posterior composites.

Biography:

Dr. Ritter is a Professor and Graduate Program Director in the Department of Operative Dentistry at the University of North Carolina School of Dentistry. He received a D.D.S. from the Federal University of Santa Catarina, Brazil (UFSC), and a Ms.D. from the University of North Carolina at Chapel Hill. He practiced full-time with emphasis in preventive, restorative, and esthetic dentistry in Brazil before moving to the US in 1997. He is a member of the editorial board of 3 scientific publications and serves as manuscript reviewer for several scientific publications. He has published over 80 journal articles and 40 research abstracts, has co-written 12 textbook chapters, and is co-author of four Operative Dentistry textbooks. Dr. Ritter has presented many scientific papers and continuing education courses nationally and internationally.



Dr. Jim Kessler

Topic: *New Materials and Technologies - Is it Time to Jump in?*

Time: *4:00 pm – 5:00 pm*

Synopsis:

In this presentation we will examine what new technologies offer to us in the way of conservative preparations, esthetics, efficiency, accuracy, and even predictability. We will also take a candid look at the marketing claims associated with CAD/CAM, Digital Impression technologies, and digital articulation, while attempting to separate fact from hype. We will discuss how various systems produce restorations from a myriad of materials and how this might modify our concepts of treatment planning and ideal preparation design.

Learning Objectives:

- Understand the physical properties for the various all-ceramic materials with particular emphasis on what most frequently leads to failure and perhaps more importantly, what constitutes failure.
- Choose the all-ceramic systems most likely to succeed in given situations based on evidence from the current literature.
- Identify clinical situations for which gold or metal-ceramic restorations remain the restorations of choice.
- Learn the current status of digital image acquisition (digital impressions).

Biography:

Dr. Kessler earned his degree from the University of Oklahoma College of Dentistry in 1977. He entered practice as an associate and taught part-time in the department of Endodontics at OU, as well as at the Children's Memorial Hospital. He later joined the Faculty in Fixed Prosthodontics where he taught for the next seven years, then accepted an appointment at the Medical University of South Carolina College of Dental Medicine in the Crown and Bridge Department, where he lectured in advanced Laboratory Techniques, Ceramics, Fixed Prosthodontics, and Occlusion. He is a member of several Academies.



Saturday Speakers



Dr. Jim Kessler

Topic: *Reverse-engineered, defect-driven preparations for bonded restorations*

Time: *8:30 am – 8:50 am*

Synopsis:

With the popularity of bonded indirect restorations, and the dramatic increase in restorations that are printed or milled rather than cast, tooth preparation principles are changing. These preparation designs vary with the planned restorative material, whether or not they will be bonded, what they will be bonded with, the character of the dental substrate to which they will be bonded, and perhaps most importantly, a clear vision of the probable mode of failure of the restoration. This presentation will provide guidelines for planning preparation designs for both anterior and posterior teeth based on the defects that exist in the tooth, the patient's risk factors, and principles of reverse engineering.

Learning Objectives:

- Recognize the preparation features that are critical for anterior and posterior bonded allceramic restorations.
- Design preparations based on the unique demands of the clinical circumstance and material properties.
- Know the risk factors for various restoration designs in order to communicate those risks, as well as the benefits, to patients.

Biography:

Dr. Kessler earned his degree from the University of Oklahoma College of Dentistry in 1977. He entered practice as an associate and taught part-time in the department of Endodontics at OU, as well as at the Children's Memorial Hospital. He later joined the Faculty in Fixed Prosthodontics where he taught for the next seven years, then accepted an appointment at the Medical University of South Carolina College of Dental Medicine in the Crown and Bridge Department, where he lectured in advanced Laboratory Techniques, Ceramics, Fixed Prosthodontics, and Occlusion. He is a member of several Academies.



Dr. Richard Price

Topic: *RHow to Choose the Right Curing Light for Your Office and Effectively use it.*

Time: *8:50 am – 9:10 am*

Synopsis:

This presentation will provide an insight into how to choose the right curing light for your practice and how to effectively use it.

Learning Objectives:

- Understand why describing the output from a curing light using a single irradiance number is meaningless.
- Understand the relationship between power, irradiance, beam profile, spectral radiant power and energy.
- Know the techniques that will contribute to successful light curing.

Biography:

Dr. Price received his B.D.S. from the University of London, England and his D.D.S. from Dalhousie's Faculty of Dentistry. He completed his M.S. in Restorative Dentistry at the University of Michigan in 1984 and his Ph.D in Oral Technology and Dental Materials at the University of Malmö, Sweden in 2001. He is currently Professor of Prosthodontics and is crossappointed in Biomedical Engineering at Dalhousie where he runs the Advanced Restorative elective for the fourth year dental students. He also works in a multi-specialty private practice in Halifax. Dr. Price is actively involved in research and has made numerous professional and CDE presentations as well as authored and co-authored more than 60 peer-reviewed articles.



Dr. Rob Roda

Topic: *Prognosis of Fractured Teeth: Considerations for Treatment Planning*

Time: *9:10 am – 9:30 am*

Synopsis:

The modern epidemic of fractured teeth has increased the requirement that the dental professional both understand the disease process and be able to derive a prognosis that is as accurate as possible. This clinical presentation will provide an evidence-based approach to collecting and interpreting diagnostic information to render the unpredictable more predictable.

Learning Objectives:

- Understand how discontinuities in the structure of teeth occur and their effect on outcomes.
- Know which diagnostic factors have the greatest relevance in deriving a prognosis.
- Decide accurately when to extract and when to retain cracked teeth.

Biography:

Dr. Roda graduated from the Faculty of Dentistry at Dalhousie University in Halifax in 1981 and maintained a full-time private general practice in Dartmouth, Nova Scotia for ten years. He also served on the Faculty of Dalhousie as a clinical instructor from 1988 to 1991, when he returned to school at Baylor College of Dentistry in Dallas, Texas. He received his Master of Science (Oral Biology) and Certificate of Specialty in Endodontics in 1993 and became a Diplomate of the American Board of Endodontics in 1998. Dr. Roda has published and lectured internationally. He is an Adjunct Assistant Professor at Baylor and an Associate Editor of the Journal of Endodontics, and is the Endodontic Consultant to the Arizona State Board of Dental Examiners. He maintains a private practice limited to Endodontics in Scottsdale, Arizona.



Dr. Emmanuel Rajczak

Topic: *Why do Teeth Crack? (Honorary CARDP Member 1965)*

Time: *9:30 am – 9:50 am*

Synopsis:

Most dentists are familiar with cracked teeth that have resulted from caries, undermined cusps, over-restorations or post-endodontic treatment where occlusal protection has not been provided. There are however occlusal conditions that predispose teeth to cracking even though they have no caries or restorations. This presentation will discuss the occlusal relationships that cause virgin teeth to crack. The diagnostic perspective as it relates to compromised occlusions is therefore the key to identifying potential cuspal fractures.

Learning Objectives:

- Recognize destructive occlusal forces.
- Identify teeth that are at risk of cracking.
- Learn restorative procedures for salvaging teeth with incipient cracks.

Biography:

Dr. Rajczak is a full-time Prosthodontist in Hamilton, Ontario with an emphasis in the field of Fixed and Removable Prosthodontics, Occlusion and Temporomandibular joint therapy, as well as Implant Prosthodontics. He has taught at the Universities of Toronto and Western Ontario and has lectured to dental organizations in Canada, the United States and Europe. He is a member of numerous prosthodontic and restorative dental societies in both Canada and the United States.



Dr. Tim Hess

Topic: *The Dirty Little Secret - Perimplantitis Caused by Excess Cement*

Time: 10:30 am – 10:50 am

Synopsis:

Cement extrusion into the sulcular area may compromise the delicate soft tissue complex. In some instances it has been blamed for loss of integration and implant failure. To date no protocol exists for cementing implant superstructures. The goal of this lecture is to examine these issues and give up-to-date and as of yet unpublished data that will be used to determine a suitable protocol for clinical practice.

Learning Objectives:

- Be aware of successful screw-retained solutions.
- Know which cements should be used.
- Identify which techniques prevent excess cement.
- Study implant specific issues.
- Understand some of the disadvantages of platform switching.

Biography:

Dr. Hess is a general dentist who graduated from the University of Washington in 1994 and practices in Auburn, WA. He currently lectures on implant failures due to restorative techniques and materials. He is a member of numerous study clubs and academies and has lectured at professional annual meetings.



Dr. Peter Taylor

Topic: *The Quest for Predictable Esthetic Tissue Management for Fixed Restorations*

Time: 10:50 am – 10:10 am

Synopsis:

There is a strong relationship between the restorative procedure and the response of the surrounding periodontal supporting structures. Fundamentals of preparation will first be examined to provide the key elements to a successful periodontal outcome. Secondly, knowledge and proper management of the biologic zone around the preparation are essential to achieving a healthy and predictable outcome. A soft tissue protocol will be reviewed for correct, time efficient intra-crevicular margin placement.

Learning Objectives:

- Understand the keys to fundamental functional preparation for restorative design.
- Discern the biologic variation within normal periodontal architecture.
- Develop a protocol for predictable intra-crevicular margin placement.

Biography:

Dr. Taylor entered the Faculty of Dentistry at Western to graduate in 1990. He then went into private practice in Oakville, Ontario with a focus on Periodontal and Restorative dentistry. He is currently Clinical Adjunct Professor and Lecturer at Western. He has been a member of Oakville Trafalgar Memorial Hospital for the past 22 years as Head of Chronic Care, and also holds the position of co-chair for the dental staff. Dr. Taylor assists as a consultant for TMJ assessments for insurance companies and is a member of the ITI international team for Implantology. He has had publications on implant and restorative dentistry and is currently an editorial consultant and reviewer for the JCDA.



Dr. Peter Walford

Topic: *Enhanced Success with Multi-Surface Composites (Active CARDP Member 2010)*

Time: *11:10 am – 11:30 am*

Synopsis:

Large, complex, multi-surface composites are an essential component of modern practice, either as an interim or final restoration. Their placement is often plagued by unsatisfactory contacts and occlusion, pulpal sequelae, unesthetic margins, and an inordinate amount of time spent in their placement. This lecture will highlight clinical solutions for these problems.

Learning Objectives:

- Prescribe finish lines at different locations in the extensively broken-down clinical crown along with expedient instrumentation.
- Understand techniques for pulpal management for minimal post-operative discomfort and optimum long-term pulpal biocompatibility.
- Learn inexpensive matrixing solutions that are versatile and expedient for restoring proper contour and contact.
- Identify criteria for choosing adhesives and appropriate resins to prevent premature material failure and to optimize esthetics.
- Reduce the excessive time often spent on these restorations.

Biography:

Dr. Walford, D.D.S, McGill 1975, mentors study clubs in Composite Resin technique and Adhesive Prosthodontics in B.C. He has presented to U.B.C. Continuing Education component Societies, and sponsored educational programs and study clubs.



Dr. Ron Zokol

Topic: *Essential Criteria for Large Vertical Dimension Bone Grafting “It May Not Be What You Think” (Fellow CARDP Member 2000)*

Time: *11:30 am – 11:50 am*

Synopsis:

This presentation will discuss key issues for predictable bone grafting. Even though the issues don't change for any given bone graft, the emphasis one places on each of those criteria needs special consideration for more advanced bone grafting procedures. Multiple procedures will be reviewed in consideration of these criteria with special emphasis on large volume vertical bone grafts.

Learning Objectives:

- Learn specific criteria for predictable bone grafting.
- Improve grafting predictability with the appropriate sequence treatment.
- Understand the consequences for not successfully achieving the required criteria.

Biography:

Dr. Zokol graduated from the University of British Columbia, Faculty of Dentistry in 1974. He started his first 20 years of practice in partnership with his father, a certified specialist in Prosthodontics. In 1983, he began his career in Implant Dentistry and graduated from the Misch Implant Institute in 1993. He was asked to start a surgical training study club in Vancouver in 1992 and, in 1993, accepted an invitation to provide one-on-one clinical instruction for the Misch Implant Institute in Montreal. Dr. Zokol has remained on its Faculty, providing surgical instruction in its Toronto program. In 1996, Dr. Zokol founded the Pacific Institute for Implant Dentistry where he continues today as Director. In 1997, he accepted a further surgical teaching position with the Canadian Implant Institute in Montmagny, Quebec. In Vancouver, Dr. Zokol continues to provide monthly instructional programs in advanced concepts in Prosthodontics.



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Table Clinics – Démonstrations de tables

Saturday, September 8th, 2012 2:00 PM 5:00 PM

3 CE Credits Issued



Dr. Emmanuel
Rajczak
(Honorary
CARDP Member
1965)

Mucostatic Impressions

Learning Objectives:

- The necessity to capture ridge tissues in their natural undisplaced forms.
- The technique to accomplish the above.
- How to combine precision attachments with mucostatic cast bases.



Dr. Terry Koltek
(Fellow CARDP
Member 2005)

The Conservative Cast Gold Inlay as a Semi-Precision Abutment

Learning Objectives:

- Although cast gold represents a dental restorative standard for longevity, function biocompatibility and comfort its utilization by the profession is on the wane.
- The clinical protocol of the Academy of R.V. Tucker Study Clubs with the advantages and disadvantages of conservative cast gold restorations will be outlined.
- The clinical assessment of a greater than 40 year old fixed prosthetic restoration provided the inspiration, in an attempt to emulate such a clinical service.



Dr. Tim Hess

The Dirty Little Secret --Perimplantitis Caused by Excess Cement

Learning Objectives:

- Be aware of successful screw-retained solutions.
- Know which cements should be used.
- Identify which techniques prevent excess cement.
- Study implant specific issues.
- Understand some of the disadvantages of platform switching.



Mr. Henry Hintze

Ankylos Syncone Bridge, the right removable Implant Restoration, for the right Patient

Learning Objectives:

- Right Patient selection for a successful Syncone Restoration.
- How is the Syncone creating stable long lasting retention.
- Restorative planning and finishing of a Syncone Restoration.



Dr. Al Mardini

Porcelain Fracture Resistance; Screw Retained Vs. Cement Retained Implant Restorations

Learning Objectives:

- Advantages of Screw Retained and Cement Retained Implant Restorations.
- Disadvantages of Screw Retained and Cement Retained Implant Restorations.
- Porcelain Fracture Resistance in Screw Retained and Cement Retained Implant Restorations.
- Guidelines to Help you Choose between the Two Types of Restorations.



Dr. Richard Price

How to choose the right curing light for your office and effectively use it

Learning Objectives:

- Using MARC[®], participants will learn how to optimize their curing technique and develop strategies to help manage the four variables that determine intraoral energy delivery.
- The potential for eye damage that can occur when using dental curing lights will be demonstrated.



Dr. John Bembenek

A new option of restorative and replacement therapy with the combination of CAD-CAM and BEST and STARRT .

Learning Objectives:

- Acquire an overview of each technology.
- Understand how each technology works with the others.
- Consider how this will impact the dentist, the laboratory technician and the client.



Dr. Chris Cameron

Peri-implant Diseases: What You Need to Know

Learning Objectives:

- Understand the fundamental differences between periodontal and peri-implant diseases.
- Learn how to screen for and diagnose peri-implantitis and peri-implant mucositis.
- Learn how to manage peri-implant diseases.



Dr. Joel Powell

Evidence on Wisdom Teeth Extraction

Learning Objectives:

- To be familiar with the absolute indications for wisdom tooth removal.
- To have a general familiarity with the pros and cons of removal versus retention of non-diseased wisdom teeth and be able to apply them to an individual.
- To appreciate the importance of patient education and choice in all situations.



Mr. Martin
Mueller

The Predicament of Choices--Anterior PFM vs. Full Ceramic Solution

Learning Objectives:

- To become sensitive to the patient's needs and expectations.
- To realize the need to understand limitations and advantages of materials which can vary within different oral environments and situations.
- To get acquainted again of the interplay between light and color within the intra-oral environment.



Dr. Allan
Coopersmith
(Fellow CARDP
Member 1989)

The Custom Impression Coping

Learning Objectives:

- How to take a fool proof impression of single or multiple abutments in 5-7 minutes with no additional retraction step necessary.
- How to repair a bubble or defect in your impression (without touching the rest of your impression) in 3 minutes.
- How to modify your stock tray or preliminary impression to create the perfect custom tray.
- How to save time and money and have fun taking foolproof impressions.



Dr. Eric
Normandeau

Intra-oral Scanning and You

Learning Objectives:

- Demonstrate the ease of integrating CAD/CAM technology into the daily practice.
- How to use CAD/CAM as a visualization and communication tool with the dental laboratory.
- Demonstrate the accuracy of the CAD/CAM system.
- Optimize the system's data archiving ability.
- Observe a real-time clinical impression demonstration using the iTero scanner and an Encode abutment.



Dr. Henri
Thériault

Digital Impressions and the Dental Laboratory

Learning Objectives:

- How Digital Impressions are a valid option in providing accurate information to the dental Lab for the construction of crown and bridge restorations.
- Be walked through the typical work flow of an actual patient case from start to finish.

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Table Clinics – Démonstrations de tables

SATURDAY, SEPTEMBER 8TH, 2012

NOVA SCOTIA BALLROOM "C&D"

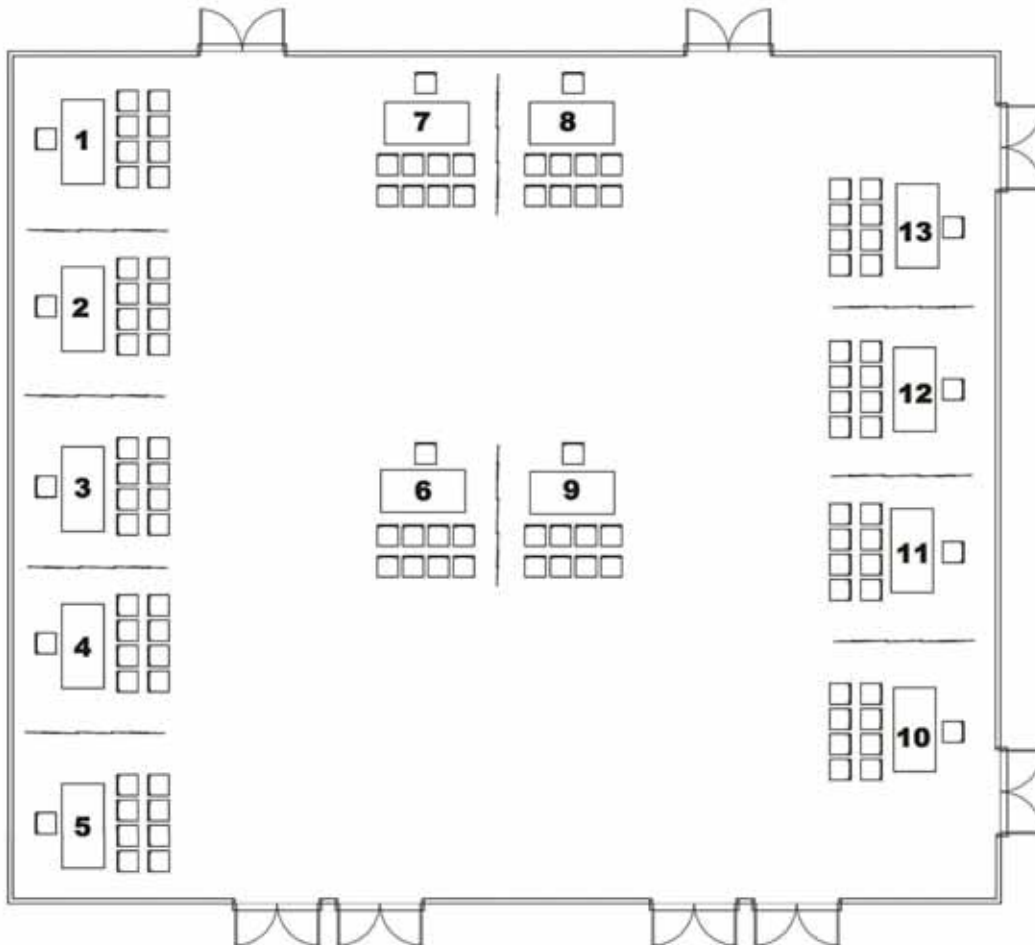
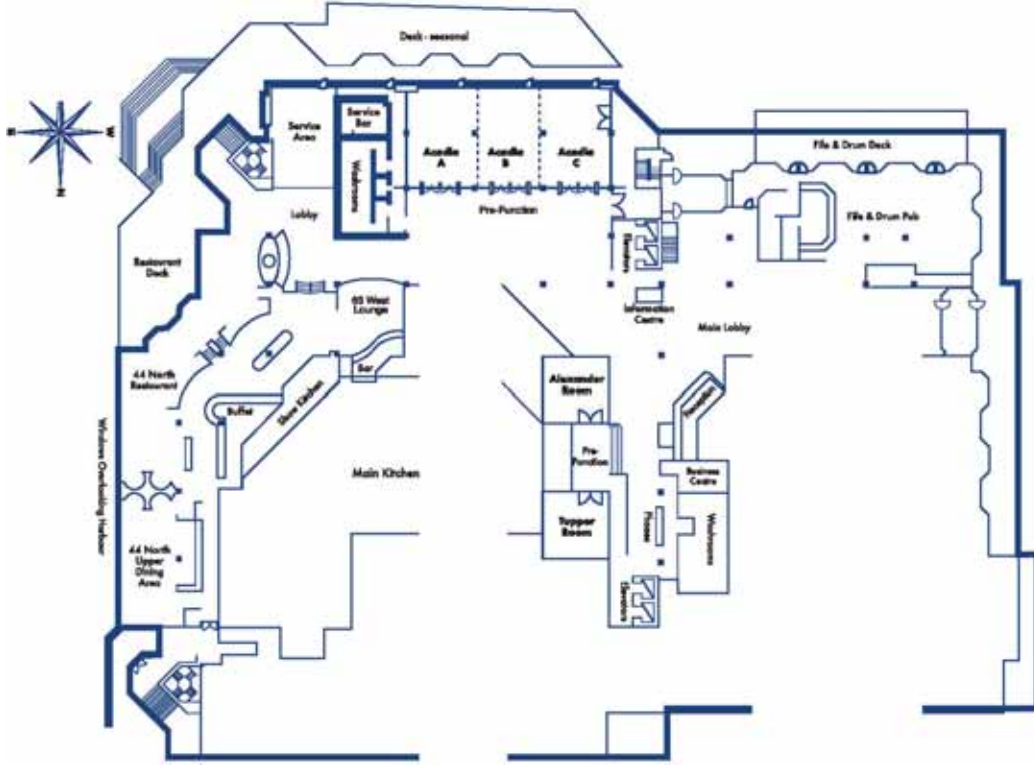


TABLE CLINICIANS

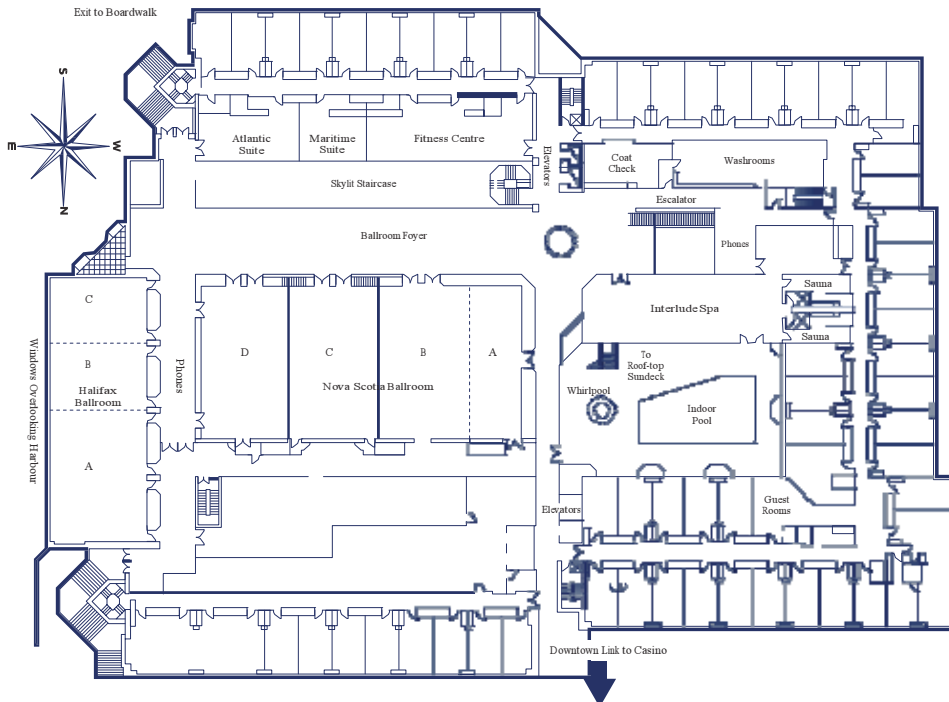
- # 1 - Dr. Emmanuel Rajczak - Mucostatic Impressions
- # 2 - Dr. Terry Koltek - The Conservative Cast Gold Inlay as a Semi-precision Abutment
- # 3 - Dr. Tim Hess - The Dirty Little Secret --Perimplantitis Caused by Excess Cement
- # 4 - Mr. Henry Hintze - Ankylos Syncone Bridge, the Right Removable Implant Restoration, for the Right Patient
- # 5 - Dr. Al Mardini - Porcelain Fracture Resistance; Screw Retained Vs. Cement Retained Implant Restorations
- # 6 - Dr. Richard Price - How to Choose the Right Curing Light for Your Office and Effectively Use It
- # 7 - Dr. John Bembenek - A New Option of Restorative and Replacement Therapy with the Combination of CAD-CAM and BEST and STARRT.
- # 8 - Dr. Chris Cameron - Peri-Implant Diseases: What You Need to Know
- # 9 - Dr. Joel Powell - Evidence on Wisdom Teeth Extraction
- # 10 - Mr. Martin Mueller - The Predicament of Choices--Anterior PFM vs. Full Ceramic Solution
- # 11 - Dr. Allan Coopersmith - The Custom Impression Coping
- # 12 - Dr. Eric Normandeau - Intra-oral Scanning and You
- # 13 - Dr. Henri Thériault - Digital Impressions and the Dental Laboratory

Marriott Halifax Harbourfront Hotel Layout

Ground Floor



Second Floor

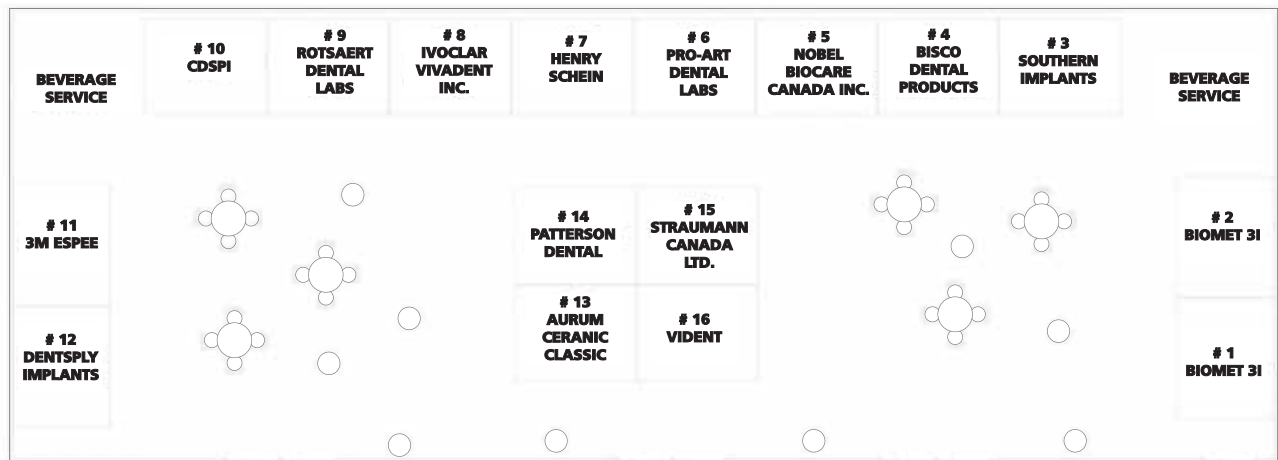




Congrès annuel scientifique - 2012 – Annual Scientific Meeting

September 6-8 septembre
Nouvelle Écosse - Halifax - Nova Scotia

EXHIBITION HALL LAYOUT PLAN DES EXHIBITS



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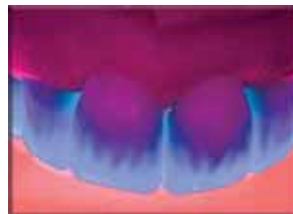
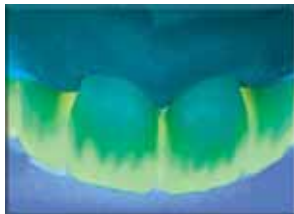


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Social Activities

The Canadian Academy of Restorative Dentistry and Prosthodontics
l'Académie canadienne de dentisterie restauratrice et de prosthodontie

20th Annual Scientific Meeting, September 6-8, 2012

Kayaking with the Shaffners in Lunenburg



Wednesday, September 5th &
Thursday, September 6th

Wednesday afternoon arrival (on own to Lunenburg)
until 4:00 pm

Registrant and/or Partner/Guest Event

Includes: Accommodations, arrival BBQ dinner, continental breakfast, kayaking, snack, water and lunch.

Dress: Warm and casual – appropriate footwear, sunscreen and hats recommended.



Golf at Chester Golf Club

Thursday, September 6th

6:45 am – 4:00 pm

Registrant and/or Partner/Guest Event

Includes: Transportation departing and returning Halifax Marriott Harbourfront Hotel, green fees, cart and lunch.

Dress code: Shirt must have collar except women who wear sleeves (no collar required). We are a soft spike course. Warm and casual, sunscreen and hats recommended.

Meet in the lobby at 6:45 am.

Kayaking at St. Margaret's Bay and Peggy's Cove



Thursday, September 6th

9:00 am – 4:00 pm

Registrant and/or Partner/Guest Event

Includes: Transportation departing and returning Halifax Marriott Harbourfront Hotel, kayaking, snack, water and lunch.

Dress: Warm and Casual – friendly foot wear, Sun Screen and hats are suggested.

Meet in the lobby at 8:45 am.

Meet, Greet & Eat at The Halifax Marriott Hotel



Thursday, September 6th

6:00 pm – 10:00 pm

Halifax Ballroom, Conference Level, 2nd Floor

Registrant and Partner/Guest Event

Dress: Business casual



Social Activities

The Canadian Academy of Restorative Dentistry and Prosthodontics
l'Académie canadienne de dentisterie restauratrice et de prosthodontie

20th Annual Scientific Meeting, September 6-8, 2012

Evangeline Trail and Wine Tasting at Grand Pré



Friday, September 7th

9:00 am – 4:00 pm

Partner/Guest Event

Includes: Luncheon at Grand Pré Winery, transportation departing and returning Halifax Marriott Harbourfront Hotel.

Dress: Warm casual, comfortable walking shoes.

Meet in the lobby at 8:45 am

Evening Harbour Tour and Lobster Ceilidh: Murphy's on the Water



Friday, September 7th

5:45 pm Meet in Hotel Lobby

6:30 pm – 7:30 pm Halifax Harbour Tour

7:30 pm – 10:30 pm Lobster Dinner & Entertainment

Registrant and Partner/Guest Event

Includes: Halifax harbour tour, lobster dinner and evening's entertainment.

Dress: Warm casual with comfortable walking shoes.

High Tea



Saturday, September 8th

2:00 pm – 4:00 pm, Halifax Marriott Harbourfront Hotel
(Private dining room, 44 North) • *Partner/Guest Event*

President's Gala



Saturday, September 8th

Halifax Ballroom, Conference Level, 2nd Floor
Reception 6:30 pm • Dinner/Dance 7:30 pm

Registrant and Partner/Guest Event

Includes: Champagne reception, Gala dinner & entertainment

Dress: Black tie optional

**For more information and to register
for the meeting, visit www.cardp.ca**



Programme social

The Canadian Academy of Restorative Dentistry and Prosthodontics
l'Académie canadienne de dentisterie restauratrice et de prosthodontie

20ième congrès annuel, 6-8 septembre 2012

Le kayak avec les Shaffners à Lunenburg

Mercredi 5 et jeudi 6 septembre

Arrivée mercredi vers 16h00

Pour membres inscrits et invités/conjoints



Vos hôtes pour cette aventure sont Dianne et Vernon Shaffner. Lors de votre arrivée à Halifax, vous devrez faire vos propres arrangements de transport pour vous rendre au Ocean View Chalets, 78, Old Blue Rocks Road – (902)640-3344. Pour les instructions sur l'itinéraire consultez www.lunenburgoceanview.com. Les chalets sont situés à l'extrémité de Lunenburg offrant un accès facile aux boutiques, galeries, musées et restaurants. Découvrez la grandiose architecture de Lunenburg qui lui a mérité une place parmi les sites patrimoniaux de l'UNESCO. À compter de Lunenburg, qui est au centre de la côte sud, vous pouvez facilement rayonner vers Peggy's Cove, Liverpool, Mahone Bay et la vallée de Annapolis. Vous serez logés dans des chalets de 1 ou 2 chambres à coucher. Le mercredi en soirée, vous et vos collègues et amis partagerez un barbecue traditionnel. Le jeudi matin débutera avec un petit déjeuner continental livré à votre cabine. De là, un court transfert vous mènera à votre point de départ vers 09h00. L'expédition se terminera aux environs de 16h00. Blue Rocks est une destination prisée de la Nouvelle-Écosse. Composées d'ardoise stratifiée, soulevées par les plis de la croûte terrestre, la cinquantaine d'îles de cet archipel, que seuls les kayaks peuvent naviguer, offrent un coup d'oeil sensationnel. Vous apprécierez les nombreuses occasions d'admirer ses eaux cristallines, sa flore et sa faune. Pour plus de renseignements, consultez www.pleasantpaddling.com

Coût: 295\$ p.p. (taxes incluses)

Inclus: Accommodation, dîner barbecue, petit déjeuner, la journée en kayak, casse-croûte, eau et repas du midi.

Habillement: chaud et décontracté – chaussé de façon appropriée, écran solaire, chapeau.

Golf au club de golf Chester

Jeudi 6 septembre

06h45 – 16h00 • *Pour membres inscrits et invités/conjoints*



Chester propose un parcours classique en bordure de mer qui plaira à tous les niveaux. Gare aux coups manqués par distraction tellement la vue de l'océan, des îles et des voiliers est spectaculaire! Pour de plus amples renseignements, consultez www.chestergolfclub.ca

Coût: 185\$ p.p. (taxes incluses)

Inclus: Transport aller-retour du Marriott Harbourfront Hotel, droit de jeu, voiturette et repas du midi.

Habillement: Gilet avec col, crampons mous, écran solaire et couvre-têtes recommandés.

Rassemblement dans le hall d'entrée de l'hôtel à 06h45.

Le kayak à St-Margaret's Bay et Peggy's Cove

Jeudi 6 septembre

09h00 – 16h00 • *Pour membres inscrits et invités/conjoints*



St-Margaret's Bay est une destination privilégiée pour la voile, le kayak et ses côtes pittoresques qui offrent des refuges naturels où mouiller son embarcation parmi les anses et les îlots. Explorez ces îles en kayak et découvrez leurs pistes, plages et points de vues.

Le vent nous favorisant, nous lèverons les voiles pour rentrer à notre base.

Coût: 135\$ p.p. (taxes incluses)

Inclus: Transport aller-retour du Marriott Harbourfront Hotel, guide, kayak, goûter, eau et repas du midi, produits de premiers soins, radio VHF.

Habillement: Chaud et décontracté mais évitez le coton qui sèche mal; portez plutôt des synthétiques – chemise à manches courtes plus chemise à manches longues pour protéger du soleil – pantalons courts ou longs qui séchent rapidement – vêtements de rechange dans un sac étanche – chaussures appropriées – écran solaire – lunettes soleil – chapeau – produit anti-moustique – autres items suggérés: lunettes d'approche et appareil photo.

Rassemblement dans le hall d'entrée de l'hôtel à 08h00.

Buffet de bienvenue

Jeudi 6 septembre

18h00 – 22h00, Halifax Ballroom, Niveau des conférences, 2ième étage

Pour membres inscrits et invités/conjoints



Nous démarrons notre 20ième congrès annuel avec une réception dans la salle de bal qui surplombe le port de Halifax. Venez rencontrer amis, collègues et commanditaires. Un dîner style buffet vous sera offert, incluant des mets maritimes typiques.

Coût: Compris avec l'inscription.

Tenue vestimentaire: De ville, décontractée.

La route Évangéline et dégustation de vins à Grand Pré

Vendredi 7 septembre

09h00 – 16h00 • *Pour invités/conjoints*



Notre excursion nous mènera au cœur de la Nouvelle-Écosse champêtre de la vallée Annapolis pour visiter la terre ancestrale des Acadiens. En passant par Windsor, vous constaterez les effets des marées les plus hautes du monde. Puis au parc national historique de Grand Pré, vous apprendrez l'histoire tragique de Évangéline, l'héroïne de Longfellow, et le triste sort des cultivateurs Acadiens, qui furent parmi les premiers colons de la Nouvelle-Écosse.

Ensuite, une visite de la viticulture de Grand Pré, accompagnée d'une dégustation d'excellents vins régionaux, sera suivie d'un repas. Ce site jouit de 30 acres de vignobles, ainsi qu'une galerie d'art présentant les oeuvres d'artistes locaux et européens.

S'il nous reste du temps à notre retour vers Halifax, nous ferons une belle escale à Wolfville.

Pour plus d'information consultez: www.ourvalley.ca ou www.grandprewines.ns.ca

Coût: 120\$ p.p. (taxes incluses)

Inclus: Transport aller-retour du Marriott Harbourfront Hotel, repas du midi à Grand Pré.

Habillement: Décontracté, des chaussures confortables.

Rassemblement dans le hall d'entrée de l'hôtel à 08h45.

Soirée croisière et Ceilidh à Murphy's on the Water

Vendredi 7 septembre

18h00 Rassemblement dans le hall d'entrée de l'hôtel

18h30 – 19h30 Croisière dans le port d'Halifax

19h30 – 22h30 Souper de homard et divertissement

Pour membres inscrits et invités/conjoints



Réunissons-nous dans le hall d'entrée du Marriott Harbourfront Hotel et de là, nous nous rendons à pied à Murphy's on the Water où nous monterons à bord du Harbour Queen II pour une tournée du port et de ses installations, et une vue des ponts et de l'île

Georges. Pour le confort de tous les passagers, ce vaisseau est pourvu d'une section fermée en-bas et d'une section ouverte en-haut. Chez Murphy's l'eau, l'air salin et la musique des Maritimes nous accueilleront. Notre repas débutera avec un chowder de fruits de mer suivi d'un homard de l'Atlantique fraîchement cuit et garni. Pour terminer, régalez-vous d'un délicieux shortcake aux fraises fraîches de la Nouvelle-Écosse. Ne manquez pas cette soirée! Pour de plus amples informations, voir: www.murphysonthewater.com

Coût: 155\$ p.p. (taxes incluses)

Inclus: Croisière, dîner, divertissement.

Tenue vestimentaire: Chaud, décontracté, bonnes chaussures de marche.

Rassemblement dans le hall d'entrée de l'hôtel à 18h00.

Le thé l'après-midi

Samedi 8 septembre

14h00 – 16h00, Marriott Harbourfront Hotel

Salle à dîner privée – 44 North • *Pour invités/conjoints*



L'histoire raconte que le «High Tea» anglais a connu ses débuts avec la duchesse de Bedford au milieu du 19ième siècle. À l'époque, les maisons cossues pouvaient se permettre l'éclairage au gaz, ce qui entraîna l'habitude mondaine de souper beaucoup plus

tard qu'auparavant, c'est-à-dire vers 20h00 ou 21h00. Or, puisqu'il n'existait que 2 repas quotidiens, en matinée et en soirée, la duchesse avait le ventre creux vers la fin de l'après-midi, accompagné de malaises. Par conséquent, elle décida d'inviter des amies pour partager un gueuleton agrémenté du breuvage de prédilection, le thé. Cette pratique devint vite coutume parmi les nantis, particulièrement au sein de la gent féminine. Éventuellement, cette tradition gagna en popularité chez les autres classes sociales. Venez rencontrer vos amis(es) au 44 North et savourer un goûter assorti d'une variété de thés.

Coût: 45\$ p.p. (taxes incluses)

Gala du Président

Samedi 8 septembre

Halifax Ballroom

Niveau des conférences, 2ième étage

Réception: 18h30 • Dîner/danse 19h30

Pour membres inscrits et invités/conjoints



Cela fait 20 ans que chaque ville hôte de nos assemblées tente de surpasser les précédentes, ce qui fait que les galas ne vont qu'en s'améliorant. Ce congrès-ci clôturera l'événement avec une réception au champagne dans la salle de bal Halifax du Marriott

Harbourfront Hotel, ainsi qu'un somptueux repas. Vous danserez ensuite à la musique énergisante de l'orchestre Bittersweet. En supplément, nous accueillerons les Singing Strings de l'île du Prince Edouard, un ensemble de jeunes musiciens talentueux dont le répertoire couvre divers styles. Quant à Bittersweet, ce groupe de Halifax est composé de 6 artistes versatiles dont tous les membres chantent et jouent une variété d'instruments. Leurs genres musicaux sont extrêmement vastes, allant de la tradition locale au rock classique au country, et plus.

Coût: 195\$ p.p. (taxes incluses)

Inclus: Réception au champagne, dîner et divertissements.

Tenue vestimentaire: Tenue de soirée optionnelle.

Renseignements sur le congrès et l'inscription disponibles au:
www.cardp.ca



Frayer la voie du futur!

The Canadian Academy of Restorative Dentistry and Prosthodontics
l'Académie canadienne de dentisterie restauratrice et de prosthodontie

Vendredi le 7 septembre • Présentations de 1 Heure

Techniques provisoires en dentisterie implantaire conventionnelle



Dr. George Cho

Synopsis: Les facteurs tels l'occlusion, la préparation d'une dent, la fonction, la phonétique, la manipulation des tissus mous, et surtout l'esthétique, peuvent tous être évalués par la fabrication d'une restauration provisoire adéquate. Celle-ci s'avère un outil de communication avec le patient et le laboratoire et aide le dentiste à prévoir les problèmes esthétiques potentiels. Le maniement des tissus mous autour des implants sera discuté pour optimiser l'architecture gingivale, les papilles, et les profils d'émergence des couronnes implanto-portées au moyen de restaurations provisoires. Une méthode sera démontrée pour fabriquer des unités de restaurations multiples provisoires esthétiques qui possèdent toutes les caractéristiques d'une dent naturelle.

Objectifs:

- Fabriquer des unités multiples de restaurations provisoires esthétiques ayant toutes les caractéristiques d'une dent naturelle
- Fabriquer des restaurations implantaires provisoires
- Discuter de l'architecture gingivale optimale
- Effectuer des contours coronaux et sous-gingivaux des implants
- Manipuler les tissus mous péri-implants avec les profils d'émergence de restaurations implanto-portées

Les lésions buccales: approche anatomique au diagnostic différentiel



Dr. Charles Shuler

Synopsis: Notre présentation mènera le participant à développer une approche de diagnostic différentiel des lésions des tissus mous de la cavité orale en évaluant les points clés de ces lésions et les référant à l'anatomie/histologie du site intra-oral. Il ne faut pas diagnostiquer une lésion dès sa première observation, mais plutôt tenir compte de la panoplie de diagnostics possibles et d'établir leurs priorités. Les méthodes pour arriver à un diagnostic final et les raisons pour favoriser certaines méthodes seront discutées. Des cas cliniques démontreront les étapes d'évaluation et de la démarche à suivre pour atteindre ce diagnostic final.

Objectifs:

- Identifier les changements pathologiques des tissus mous
- Évaluer les lésions selon un format standardisé
- Générer un diagnostic différentiel basé sur l'anatomie et l'histologie du site
- Comprendre les procédures additionnelles qui favorisent le diagnostic et le plan de traitement
- Appliquer ce processus aux cas cliniques afin de renforcer cette nouvelle approche

«3DP» Planification, placement et prosthodontie numérique de l'implant



Dr. Izchak Barzilay

Synopsis: La dentisterie implantaire numérique sera vue sous ses multiples formes: le placement d'implants dans des situations difficiles et la restauration de ces implants à l'aide d'une approche numérique de conception et de fabrication. Les implants angulés, le logiciel de planification, les empreintes numériques et les restaurations finales seront présentés prestement.

Objectifs:

- Employer divers logiciels de planification pour décider du meilleur choix d'implant et de son placement
- Dans des conditions osseuses minimales, placer les implants angulés avec un guide CT sans lambeaux
- Utiliser la technologie numérique pour recueillir l'information nécessaire pour la fabrication des restaurations sans avoir recours aux empreintes conventionnelles

L'occlusion dans une pratique restauratrice et de spécialité en 2012



Dr. Jim McKee

Synopsis: Bien que l'occlusion continue d'être un facteur critique pour la réussite d'un cas, c'est peut-être la discipline la moins comprise de notre profession. La vision traditionnelle s'adresse uniquement aux contacts des dents et leurs mouvements mandibulaires verticaux et horizontaux. Cette approche cependant mène à des résultats variables. De nos jours, les concepts sur l'occlusion englobent à la fois les dents ainsi que les articulations temporo-mandibulaires, ce qui assure une prévisibilité accrue en pratique restauratrice et spécialisée.

Objectifs:

- Développer un protocole pour chaque patient afin de jauger les risques occlusaux et temporo-mandibulaires
- Trouver les dossiers diagnostiques appropriés de manière efficace
- Fixer les options de plans de traitements pour les cas occlusaux/DTM simples ou complexes

Tendances dans l'usage de composites directs postérieurs



Dr. Andre Ritter

Synopsis: Cette présentation résumera les usages courants de composites postérieurs et discutera des solutions cliniques pour les problèmes liés aux restaurations avec composites postérieurs.

Objectifs:

- Identifier les meilleurs cas pour l'usage de composites postérieurs
- Comprendre les avantages et inconvénients des systèmes de résine composite courants pour les restaurations postérieures
- Employer des solutions cliniques pour les problèmes associés aux composites postérieurs

Les nouveaux matériaux et technologies: Devrions-nous nous lancer?



Dr. Jim Kessler

Synopsis: Cette présentation examinera les nouvelles technologies en vue de préparations conservatrices, de l'esthétique, l'efficacité, la précision et la prévisibilité. Nous étudierons les réclames publicitaires associées à la CAO/FAO, aux empreintes numériques et à l'articulé numérique, tout en tentant de distinguer entre la vérité et l'exagération. Nous discuterons comment différents systèmes produisent leurs restaurations à partir d'une multitude de matériaux et comment ceci influence notre approche envers le plan de traitement et notre concept du design idéal d'une préparation.

Objectifs:

- Comprendre les propriétés des divers matériaux tout-céramiques avec une vue particulière sur les causes fréquentes d'échecs, et ce qui constitue un échec
- Choisir les systèmes tout-céramiques les plus aptes à déterminer le succès d'après la littérature contemporaine
- Identifier les conditions cliniques où l'or ou les restaurations céramo-métalliques demeurent le choix par excellence
- Mettre à jour le statut des prises d'empreintes numériques disponibles

Halifax: La capitale de la Nouvelle-Écosse possède les atouts d'une grande métropole sans pour autant sacrifier le charme et l'hospitalité réputée des Maritimes. S'ajoutent son emplacement en bordure de la mer, ses côtes accidentées, ses plages sablonneuses, ses pittoresques villages de pêcheurs à proximité et son architecture historique qui font de cette ville un joyau canadien.

Température moyenne en septembre: 9-19C/49-66F

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Samedi le 8 septembre • AM: courtes présentations cliniques



Préparations rétroconçues pour restaurations mordancées

Dr. Jim Kessler



Choisir la bonne lumière photopolymérisante et l'utiliser efficacement

Dr. Richard Price



Le pronostic des dents fracturées: plans de traitements

Dr. Rob Roda



Pourquoi les dents fêlent-elles?

Dr. Emmanuel Rajczak



Le vilain petit secret: Péri-implantite causée par l'excès de ciment

Dr. Tim Hess



À la recherche d'une gestion esthétique et biologique des tissus en restauration fixe

Dr. Peter Taylor



Meilleur rendement des composites à surfaces multiples

Dr. Peter Walford



Critères essentiels pour les greffes osseuses volumineuses verticales

Dr. Ron Zokol

Samedi le 8 septembre

Démonstrations de tables • 14h00 - 17h00

Les empreintes mucostatiques – Dr. Emmanuel Rajczak

L'incrustation conservatrice en or comme pilier de semi-précision – Dr. Terry Koltek

Le vilain petit secret: péri-implantite causée par l'excès de ciment – Dr. Tim Hess

Le pont Ankylos Syncone, la restauration implantaire amovible adéquate pour le patient – Mr. Henry Hintze

La résistance de la porcelaine aux fractures: restaurations implanto-portées vissées vs cimentées – Dr. Al Mardini

Choisir la bonne lumière photopolymérisante et l'utiliser efficacement – Dr. Richard Price

Une option nouvelle de restauration et de remplacement thérapeutique avec une combinaison CAO/FAO et BEST et STARRT – Dr. John Bembek

Les maladies péri-implantaires: ce que vous devez savoir – Dr. Chris Cameron

L'extraction des dents de sagesse – Dr. Joel Powell

L'embarras du choix: la céramo-métallique antérieure vs la solution toute céramique – Mr. Martin Mueller

Chape d'empreinte individualisée – Dr. Allan Coopersmith

L'empreinte numérique intra-orale et vous – Nom du présentateur à venir

Les empreintes numériques et le laboratoire dentaire – Dr. Henri Thériault

Samedi le 8 septembre

Programme social

Mercredi le 5 et jeudi le 6 septembre

Faire du kayak avec les Shaffners à Lunenburg

Jeudi le 6 septembre

06h45 – 16h00

Golf au club de golf Chester

09h00 – 16h00

Le kayak à St-Margaret's Bay et Peggy's Cove

18h00 – 22h00

Dîner au Halifax Marriott Harbourfront • Buffet de bienvenue

Vendredi le 7 septembre

9h00 – 16h00

La route Évangéline et dégustation de vins à Grand Pré • Activité pour invités/conjoints

18h00 – 22h30

Croisière, souper de homard, divertissement
Naviguez le port en soirée et assistez à un Ceilidh

Samedi le 8 septembre

14h00 – 16h00

Le thé l'après-midi • Activité pour invités/conjoints

Réception 18h30 • Dîner/danse 19h30

Gala du Président

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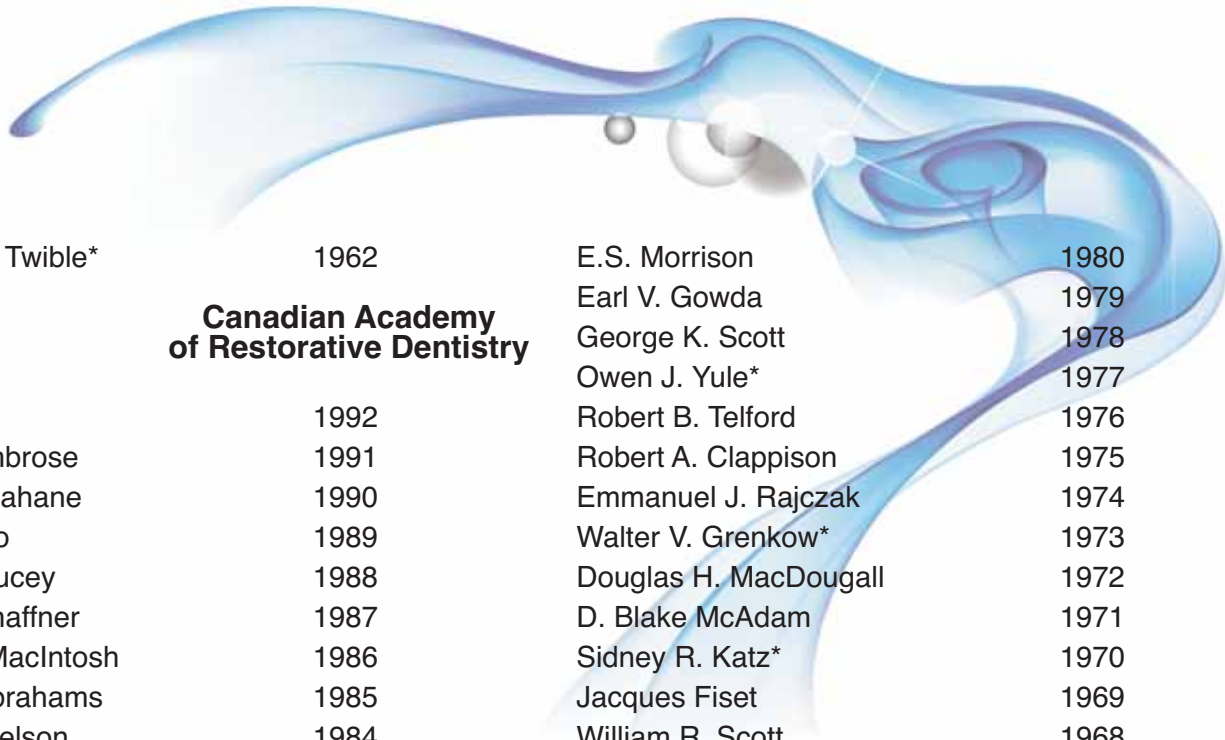
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