College Contact

WINTER 2010

COLLEGE OF DENTURISTS OF ONTARIO

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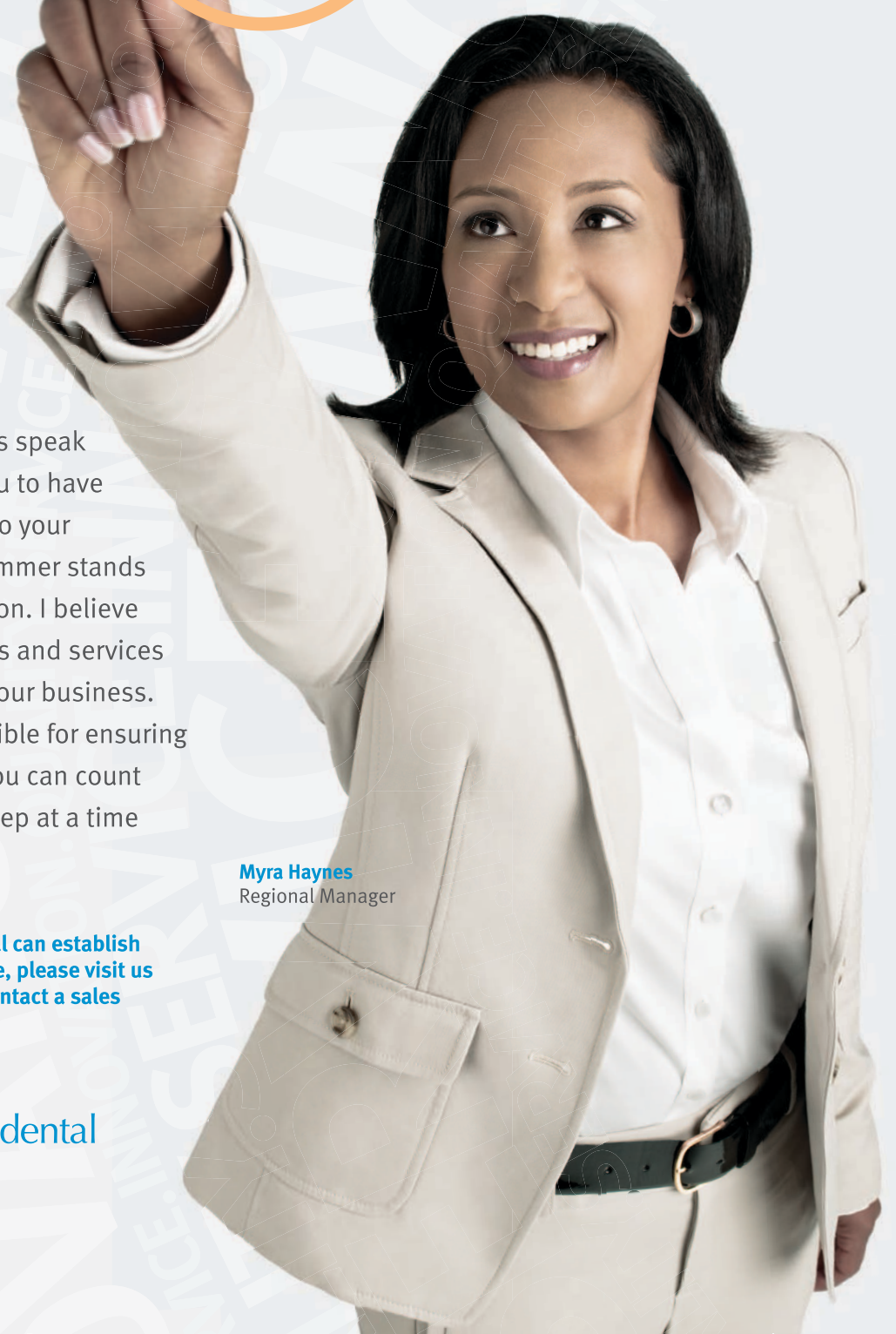

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FEATURES

ON THE COVER

Photo by: Maxiar
Name of Photo: Rebirth
Location: Banff, Alberta, August 2010
Description: Even amongst a burnt forest, Nature has the incredible ability to bring back life. The beauty of this power is breathtaking and brings hope only to those who look for it.

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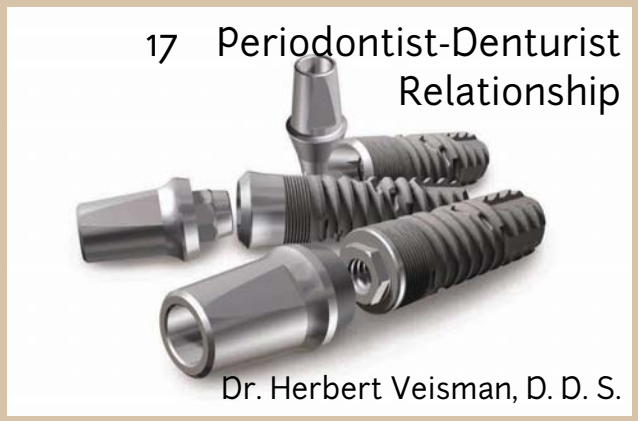
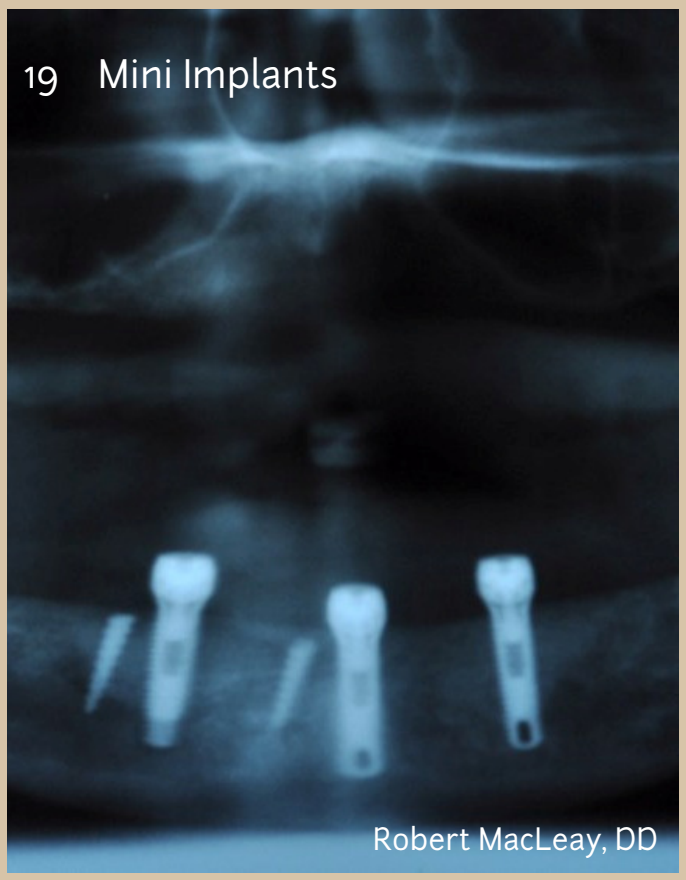
College Contact is published four times annually by the College of Denturists of Ontario.





REPORTS

Letter from the Editor

Max Mirhosseini, DD, HIP
Editor-in-Chief

Several months ago, when I was approached to become the new Editor-in-Chief of the College Contact, I had a vision for the magazine. My goal was to not only produce a magazine that serves as a bridge of communication between the College of Denturists of Ontario and its members, but also a means of celebrating the denturist as an artist. Yes, artist. Everyday, we use our creative talents and workmanship to sculpt and perfect dentures that will enhance our patients' lives. This is the same admirable aspiration as the artist, who produces masterpieces in the hopes of enriching the lives of his admirers. We are in essence a talented group of professionals and we should be very proud of our accomplishments. My hope is that you will take this new attitude with you as we begin a new journey towards the upcoming new year.

"Attitude is a little thing, that makes a big difference in life."

Winston Churchill

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District 7

ANDY PROTOPAPAS, DD
District 8

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EMANUELE DILECCE

ANGELA SMITH

JEFF AMINI

JOAN DUKE

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left to right: Josep Natividad (Coordinator of Complaints and Registration), Jennifer Lee (Coordinator of Policy and Records), Salim Kaderali (Registrar), Laura Ellis (Coordinator of Quality Assurance, Qualifying Exams, Patient Relations, Regulations and By-Laws), Korin Tran (Administration Facilitator)

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taking pride on the past

and moving towards the vision…

Message from the President

I am happy to be able to report to you on several exciting developments and initiatives by the College since the last quarter.

First, the College completed its summer session of the qualifying examinations. This cohort of candidates was the largest to date. Accordingly, I would like to take this time to thank the examiners, Qualifying Examination Committee, and examination coordinator for all of their hard work in preparing for and administering the examinations.

Following the examinations, the College welcomed successful candidates to the profession at an orientation session held by the President and the Registrar. The session included explanations of the role of the College and of quality assurance standards. We also had the opportunity to answer many of the questions that the new registrants had. The orientation was well-attended and well-received. The College hopes to continue to welcome new members through this new practice.

The College has also been actively preparing for its first ever Special General Meeting (SGM). As with the new registrant orientation, this initiative is a result of recognizing the need for increasing communication between the College and its members. Accordingly, the College will be delivering a clear message at the SGM to registrants on its vision and activities. The meeting will also inform registrants about complaints resolutions, record keeping, asepsis, quality assurance, continuing education, and implants.

Council members will be formally introduced to membership at the SGM. However, I would like to also take this time to welcome Emanuele DiLecce, Anita Kiriakou and Angela Smith to Council. Further, I would like to congratulate Ted Dalios on his re-election to Council. Council is committed to the College's mandate of regulating, governing and developing the profession of denturism while serving the public interest. A diligent and energetic group, Council engages in healthy debates, and is working towards finding a common ground for fulfilling the College's mandate.

As I express my excitement of working with Council on future endeavours, it is also with great sadness that I inform the membership that we have lost one of our most valuable and senior members of Council, Thomas Capy. Thomas was a great asset as a Public Member. His wisdom, charm and humour will be greatly missed.

As President, I have always believed in an open door policy. Members are free to call me with issues or concerns at my office or to email me at JGKoroneos@denturists-cdo.com. I look forward to seeing all of you at the SGM.

I wish all members the very best for the upcoming holiday season and for a safe and successful new year.

J. Gus Koroneos, B.Sc., DD
President

Our Mission

The mission of the College of Denturists of Ontario is to regulate, govern and develop the profession while serving the public interest.

Message from the Registrar

I would be amiss if I did not open my report with the statement that this quarter has been extremely busy. On the positive side, let me add that it has also been fulfilling since all of our energy and efforts have led to several projects moving forward with favourable results.

Allow me to review some of the larger projects. A lot of time and resources were spent on completing the Elections Inquiry Report. As a result of the report, several changes have been proposed to the By-Laws of the College which will streamline the process for elections and make it more convenient for registrants.

The next large project was the changes to the Registration Regulation. These changes were necessary because of the new *Ontario Labour Mobility Act*. In addition to making our Regulation labour mobility compliant, the College took this opportunity to improve the registration process and the accreditation process of educational institutions. The College undertook the task of examining its operations and procedures by simultaneously updating the College By-Laws. This was achieved in consultation with the Registration Committee and the Regulations and By-Laws Committee.

The summer qualifying examinations generally have a large number of participants. This year was no exception. Overall, performance on the examinations was poor. Accordingly, the College is taking steps to communicate with the schools in tandem with the Ministry of Training, Colleges and Universities to address this issue.

As per a prior motion by Council, a thorough review of the various options for malpractice insurance, exam and mentorship insurance was carried out. A number of meetings with different insurance agents were held, and a final report regarding insurance was prepared for Council's review at their last meeting.

College staff has been integral to the success of these projects and the College more generally, whether by providing support to the Committees or working through the day-to-day processes of the College. I would like to take this opportunity to recognize their valuable contributions.

Salim Kaderali, B.Sc., Dip.Ed., M.Ed.
Registrar

Inquiries, Complaints & Reports Committee Report

Gus Koroneos, DD *(Council Member, Co-Chair)*
Chris Dimopoulos, DD *(Non-Council Member)*
Joan Duke *(Public Member)*
Harry Orfanidis, DD *(Non-Council Member)*
Carlos Valente, DD *(Council Member)*
Leanne Bentley, DD *(Non-Council Member)*
Pino Di Nardo, DD *(Non-Council Member, Co-Chair)*
Anita Kiriakou *(Public Member)*
Luc Tran, DD *(Council Member)*

The Committee currently has 21 open cases and 10 decisions drafted. The Committee issued an oral caution this past summer.

The Committee continues to be concerned at the number of complaints it receives. Accordingly, the Committee looks forward to the opportunity to discuss strategies on how to avoid complaints at the SGM. The Committee will be presenting case scenarios at the SGM to assist registrants to resolve problems as they arise in their offices.

Registration Committee Report

Dawn Stamp, DD *(Non-Council Member, Chair)*
Andy Protopapas, DD *(Council Member)*
Joan Duke *(Public Member)*
Carlos Valente, DD *(Council Member)*

The focus of much of our efforts has been to prepare amendments to the Registration Regulation. The Committee has made efforts to ensure our proposed Registration Regulation is reflective of current By-Laws and encompasses future acquisitions in increasing our scope of practice. The proposed amendments were circulated to our general membership and to several external Regulated Health Care bodies. Overall, the response back to the College was favourable to the proposed changes and a few minor issues were addressed by the Registration Committee. We now await final approval from Council.

The Committee has also been actively reviewing open applicant files, particularly after failure to pass both the winter and summer 2010 licensing examinations, in addition to those which may have expired for other reasons. As well, the Committee continues to address concerns regarding the Fairness Commission and the Labour Mobility Act.

Discipline Committee Report

Jeff Amini *(Public Member, Chair)*
John Kallitsis, DD *(Council Member)*
Carlo Di Nardo, DD *(Non-Council Member)*
Angela Smith *(Public Member)*
Carlo Zanon, DD *(Non-Council Member)*
Robert MacLeay, DD *(Council Member)*

The Discipline Committee has had 3 matters referred to it by the ICRC.

Once the Committee completes its hearings and arrives at a decision in these matters, the College will publish a summary of the allegations, facts, findings, and reasons in an future issue of the College Contact.

Patient Relations Committee Report

Joan Duke *(Public Member, Chair)*
Emanuele DiLecce *(Public Member)*
John Kallitsis, DD *(Council Member)*
Max Mirhosseini, DD *(Council Member)*
Garnett Pryce, DD *(Non-Council Member)*

The Committee has received positive feedback on the electronic Contact Update newsletter. The Contact Update will continue to be issued within 2 weeks following Council meetings. The Committee has been working hard on the new College Contact. Your professional input is always welcome.

Quality Assurance Committee Report

Emanuele DiLecce *(Public Member, Chair)*
Jonathan Nolan, DD *(Non-Council Member)*
Max Mirhosseini, DD *(Council Member)*
Cristian Lagos, DD *(Non-Council Member)*
Robert MacLeay, DD *(Council Member)*

The Quality Assurance Committee is in the process of completing 23 randomly selected assessments. The assessments are scheduled to be completed by the end of November. John Kallitsis has accepted the role of Chief Assessor. The Committee has complete confidence that he will oversee the assessments in a professional manner. John has held an all-day special meeting with the assessors to emphasize that they are to conduct themselves in a personable manner and to avoid unnecessary tensions. He also had the assessors share their experiences and engage in role-playing.

Cristian Lagos has accepted the responsibility of compiling data on continuing education and has presented his findings to Council. He will be assisting in the process of implementing a mandatory continuing education program for all members.

ATTENTION MEMBERS!

AS OF JUNE 1, 2011 NEW CLINICS ARE REQUIRED TO HAVE A CSA APPROVED DENTAL CHAIR, EXAMINATION LIGHT AND AN EVACUATOR OR CUSPIDOR IN THEIR OPERATORY. AS OF DECEMBER 31, 2011 ALL EXISTING CLINICS MUST MEET THE SAME REQUIREMENTS.

Qualifying Examination & Curriculum Committee Report

Andy Protopapas, DD *(Council Member, Chair)*
Cristian Lagos, DD *(Non-Council Member)*
Dawn Stamp, DD *(Non-Council Member)*
Ted Dalios, DD *(Council Member)*
Angela Smith *(Public Member)*

The Qualifying Examination Committee takes their mandate seriously and has continued to work to fine tune the examination process. The Committee held a wrap-up session on September 19, 2010 with examiners and some students. This session was well-attended by the examiners and allowed the examiners an opportunity to provide feedback to the Committee. The chair of the Committee attended this meeting and relayed the feedback he received to the Committee for their consideration. The Committee has reviewed the feedback and is preparing for the next offering of the qualifying examinations.

ATTENTION MEMBERS!

The College is now looking for examiners for the next Examination session. If you would like to be an examiner, please contact the exam coordinator Laura Ellis at lellis@denturists-cdo.com or 416-925-6331 ext. 222. To be an examiner you must have practiced denturism for a minimum of 5 years.

Regulations & By-Laws Committee Report

Joan Duke *(Public Member, Chair)*
Angela Smith *(Public Member)*
John Kallitsis, DD *(Council Member)*

The Regulations and By-Laws Committee met recently to discuss proposed amendments to the College By-Laws and Registration Regulation.

The amended By-Laws and Registration Regulation are now awaiting Council's approval.

THE EVOLUTION OF IMPLANT DENTISTRY
The Periodontist-Denturist Relationship

Dr. Herbert Veisman, D.D.S.

Dr. Herbert Veisman received his D.D.S. from the University of Western Ontario. He completed a general practice residency program at McGill University's Montreal General Hospital, then continued his training at Columbia University in the City of New York, where he earned a specialty certificate in periodontics and implant surgery. There, he also earned the Gold Medal Melvin Morris Award in Clinical Periodontology for outstanding clinical achievement.

Dr. Veisman has maintained teaching positions in the Department of Periodontics at the University of Toronto and the University of Western Ontario. In addition, he maintains a full-time private practice in Toronto with special interest in bone regeneration, implant dentistry, and dental anaesthesia. He is founder of the Veisman Institute of Periodontology, a continuing education workshop for general dentists, denturists and hygienists.

As well as being certified by the American Board of Periodontology, Dr. Veisman has maintained the status of Fellow and Examiner of the Royal College of Dentists of Canada. He is past-President of the Ontario Society of Periodontists, served on the Executive Committee of Alpha Omega dental fraternity, and has published numerous articles in peer-reviewed journals nationally and internationally.

Dr. Veisman lives in Toronto with his wife and two sons and enjoys swimming, golfing and traveling.

About 3000 years ago, the first copper stud was nailed into an Egyptian's mouth. Implant dentistry was born. Fast forward to the 20th Century, various chrome alloys were developed in the 1930's. Then, sub-periosteal implants came along in the 1940's, transosteal implants emerged in the 1950's, Linkow created the endosseous blade-vent implant in the 1960's, and finally (and mercifully) PI Branemark presented his initial findings in the late 1970's on the root form dental implants. Dental implants were here to stay.

Implant dentistry has evolved tremendously over the past 30 years since its introduction by PI Branemark to North America at the Toronto Conference. Leading up to this conference implant dentistry was the "*Wild West*" with respect to surgical and restorative intervention techniques. Manufacturers of dental implants came up with various concoctions and variations on this new and intriguing implantable devise. In addition to the various forms of implants, there were multitudes of ways to treat the implants surface. Some manufacturers made their implant surfaces smooth while others roughened their implants. Some implants were coated with titanium plasma spray and some were acid etched. Furthermore, some implants had hydroxyapatite surfaces, others had titanium beads sprayed onto the surface. All of these implants were studied in depth by various university groups around the world. With time, of the 1300 dental implant companies that popped up, only a handful were successful and appear in the mainstream dental practice.

With all the studies that were conducted with respect to dental implant success and longevity, few studies looked into the vital element that is pertinent to the actual patient in everyday practice. That element is you: the denturist. Irrespective of the type of implant

used, the surface coating, or the restorative kits that are used, the experience and competency of the practitioner is the most important aspect that governs the final outcome of any patient treatment.

It is safe to state that all root form implants on the market today are similar in scope and final outcome. Success rates with most implant systems are better than 95% over 10 years or more. But the one aspect that can sustain, or even improve this success rate, is the competence and experience of the practitioners involved in the patient's overall care. Having been in dental practice for close to 20 years and having operated my own surgical dental implant practice for over 15 years, I can safely say that my experience with the denturist community at large has been extraordinarily rewarding.

Denturists, by virtue of their specialty in treating the partially and fully edentulous patient, are very well positioned for the challenges that will be associated with the changes in demographics that are occurring in society. The arrival of baby boomers into the 65+ age group begins in 2011. The number of seniors is projected to more than double, increasing from 1.8 million in 2009 to 3.7 million by 2030. Even faster growth is projected for the oldest age group during this period, with the population aged 90+ rising by 147 per cent. By 2030, seniors will account for 21.9 per cent of Ontario's population, much higher than the current 13.7 per cent share.

The annual pace of growth of the senior population is projected to increase from 2.6 per cent in 2009 to 2010 to about 3.5 per cent from 2013 to 2030. This demand for dental care is likely to increase in the coming years as the trend continues toward the deinstitutionalization and integration of persons with special needs within the community. When you combine this trend with Canada's aging demographics, the simple fact is that denturists across the country will soon be confronted with a greater number of medically compromised or elderly patients with physical and cognitive impairments. These factors will put the special needs and elderly populations at an even greater risk of experiencing the pain and dysfunctions associated with oral disease and other general diseases.

To help alleviate the pain and stress associated with deteriorating oral health in an aging population, denturists will be called upon to implement their vast experience and expertise in complete oral rehabilitation. The baby boomer generation wants to age gracefully and, by and large, prefers the more comfortable, esthetic and costly implant dentistry option. Although some may opt for a transitional removable appliance, most will outgrow the transitional prosthesis and have the financial means and wherewithal to choose full arch fixed dental implant therapy. Today, such treatment options include All-On-Four and Teeth-in-an-Hour (Nobel Biocare) as well as other CAD-CAM dependent rapid implant placement and restorative treatment delivery systems. These treatment modalities are highly successful and offer reduced discomfort, minimal chair time and, most important, immediate gratification to the patient!

Periodontists, such as myself, are available to assist denturists to take on this huge challenge and responsibility of treating an ever growing population in need of more and more sophisticated dental care. Periodontists have been instrumental not only in saving teeth to be incorporated in fixed and removable prosthesis, but also in the evolution of bone grafting and soft tissue augmentation techniques. As patients present with increasingly complex dental complications and require more complex care, periodontists and denturists can work hand in hand to deliver the latest and most advanced treatment options available. Periodontists are trained to not only improve the oral infrastructure into which dental implants are placed but to perform such treatment with the most esthetic outcomes in mind. This is especially true of the aging baby boomers who are driven by the goal of a superior quality of life and a desire to look and feel fabulous.

Bearing all this in mind, the future looks very bright for the successful co-operation of the periodontist and denturist towards a mutually beneficial relationship based on strong professional values, clinical competency, and an ability to reach out to those who are most in need of our invaluable services.

MINI IMPLANTS

Robert MacLeay, DD with the surgical expertise of Dr. Eric Chatelain, D.M.D.

The past ten years has seen a dramatic shift in the use of temporary mini implants. In principle, the intention for this implant was as a transitional support mechanism while standard diameter implants were integrating. They have seen limited use in orthodontic procedures that require distalization of natural teeth. Upon removal of these temporary mini implants it was discovered that varying levels of integration into the bone had occurred. This led to an application to Health Canada that approved this product for a more extensive spectrum of temporary use.

Presently, the mini implant is experiencing somewhat of a makeover. They now enjoy the surface preparations of standard implants, while increasing their diameter closer to the 3mm of the slim conventional implant. This has been accomplished, in part, through the clever manipulation of our edentulous patients phobic dental anxieties. Professionally speaking, we have been exposed to a healthy dose of advertising, disguised as pseudoscience, recently in Denturism Canada.

It is worth mentioning that the practitioners placing mini implants are rarely oral surgeons, periodontists, or the general dentists specializing in dental implants that we have become accustomed to working with. More typically, they are general dentists with little or no surgical experience with standard diameter implants. The big names of implant dentistry do not place mini implants. What is it that these highly experienced surgeons know, that is absent from the understanding of the inexperienced general practitioners? It would appear that the dentist least comfortable with conventional implant surgery is the practitioner of choice when referring patients for the placement of mini implants. These dentists begin placing mini implants after only "a few hours of basic training", as Dr. Bruno Lemay mentioned in his recent article.

Unfortunately, mini implants tend to appeal to both the patient and the dentist for the wrong reasons. The dentist, who has never raised a flap for placement of conventional implants, is perfectly comfortable placing mini implants in a flapless environment *(Figure 1)*. The appeal of a flapless procedure to a phobic patient is self-explanatory. The dentist placing the mini is comfortable with the procedure because it appeals to their limitations as

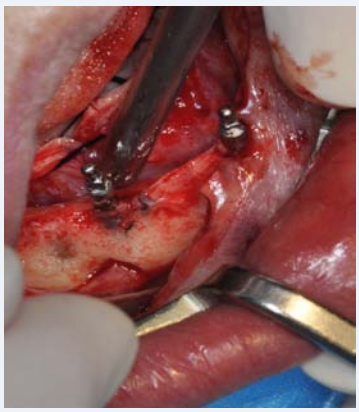


Figure 1: Mini implant placed directly into the mandibular canal in a flapless procedure

well. The treatment plan has been effectively tailored to meet the surgical limitations of the dentist and the emotional limitations of the patient. Dentistry is filled with similar examples. Consider the treatment plan for a maxillary overdenture that involves only 4 implants placed in the premaxilla. Is it possible that the dentist advocating this treatment is uncomfortable with sinus augmentation? Now consider the added costs associated with bone grafting and an increase in the number of implants. If the dentist is uncomfortable with discussing these fees, it is very likely that they will design a treatment plan with those limitations in mind. How else can you rationalize that 4 implants are adequate support in the absence of the 24 roots of the previous natural dentition. Treatment options get inordinately minimized when the dentist has discomfort discussing the cost of multiple implants. These procedures carry a significant cost for both surgical and prosthodontic segments of treatment. If anyone in the implant team is uncomfortable discussing fees, the case will have a tendency to be under engineered with too few implants, or mini implants.

The implementation of dental implant therapy is somewhat fragmented for those new to this particular side of dentistry. Everyone has to start somewhere. Dentists do not customarily begin their implant practice with a bilateral sinus lift, ridge splitting and 10 maxillary implants on their first case. More typical would be 2 implants in the symphysis for a mandibular overdenture. They work their way up to those larger cases by perfecting both surgical technique and the verbal skills necessary to discuss more complex treatments and the inherent fees that go with them. The same is true on the restorative side of the equation. The only difference is that the restorative clinician is usually responsible for the initial introduction to dental implants. That endows the denturist with the responsibility of adequately preparing the patient for their surgical consultation. It is crucial that the patient understands the functional and biomechanical limitations of the prosthodontic options they are considering. Simply put, your parafunctional patient is not a good candidate for mini implants.

The allure of the mini implant for the dentist and the patient is somewhat homogenous. They appeal to the dentist intimidated by conventional implant surgery, and the patient who has the same anxiety. Mini implants require only a small perforation in the soft tissue, and are typically placed in a flapless environment at fees that are approximately 50% of standard diameter implants. In contrast, conventional implants necessitate a larger surgical field with reflection of the soft tissue, and a series of increasing diameter trephines. One of these treatments is easier to discuss with the completely edentulous patient. It is all in how you frame the conversation. It is very easy to structure a consultation that exposes the patient to a series of prejudicial views. This is especially true for the predominantly phobic dental patient that is our completely edentulous clientele.

Completely edentulous patients are not typically the success story of dentistry. They are not particularly comfortable in the dental chair, and rarely acknowledge it freely. Their body language is more telling, as they position themselves as far left of centre in the dental chair as space permits. They rarely speak honestly about their discomfort and prefer to minimize their difficulties by telling you that they have no problems, saying: “I can eat whatever I want. Everything is fine”. What we see in the mouth often contradicts their peace and comfort.

When you understand the frame of mind of the edentulous patient, you are able to see that they are highly susceptible to the power of suggestion. This is especially true if they have experienced any denture related discomfort or have contemplated dental implant treatment. Fear is the single greatest deterrent to implant treatment. It is not the cost of treatment that the proponents of mini implants would have you believe. In consultation, the phobic dental patient usually exposes their dental anxiety by expressing their financial concerns. This is the easiest way to end a conversation they are uncomfortable having. They have been trapped in a corner, confronted with their unrelenting fear of dentistry. They deal with their anxieties through avoidance, predictably stating, “I simply can’t afford implant treatment”. This is what is referred to as a conversation ending technique, somewhat akin to the one word

Figure 2: Conventional Implants replace 4 mini implants. 45 is figure 1 and could only be reduced, not removed.

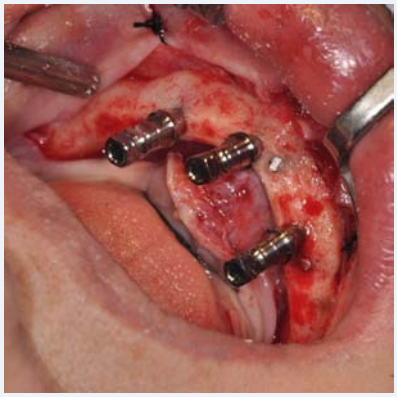
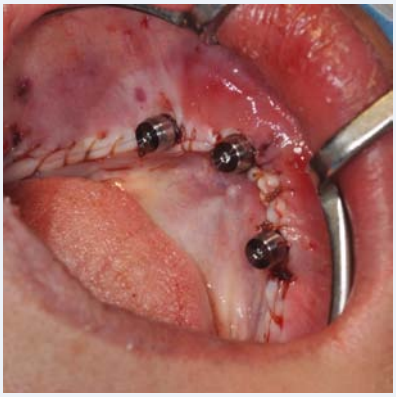


Figure 3: Post flap closure



answer you get from your teenager when you pry into their social life. It is rarely an accurate statement of fact. The dentist providing emergency service after hours is all too familiar with the abscess that should have had endodontic treatment months ago. When given the option of extraction or root canal, the suffering patient asks the cost. Invariably the choice is extraction. After all, had they valued the root canal, they would have avoided the discomfort of the abscess. This has much more to do with the fear, rather than the cost of treatment. There is a lack of fair exchange. The patient has never paid for a dental treatment "they" actually wanted. They were only ever paying to get out of the office.

Undoubtedly, there is a segment of the population that will never be able to afford dental implant treatment, but that does not stop them from inquiring. Consider the patient that receives social assistance benefits and insists on information about implants. What is it that sustains their curiosity? In contrast, those who have ended the conversation about implants by referring to the cost, have no interest in being curious. They do not wish to talk any further. They have ended the conversation by making a statement for which they feel we have no response; "I can't afford it".

One of the primary motivational tools used by the proponents of mini implants is their affordability. They suggest that mini implants allow their patients who normally could not afford conventional implants the opportunity to experience denture stability. This concept of patient and practitioner motivation is particularly disheartening. Dr. Lemay suggests 8 maxillary and 6 mandibular mini implants for a full mouth restoration. If the cost of a mini implant is approximately $750, the implants alone total $10,500. Factor in the cost of the new prosthesis and we end up with a rather distorted view of affordability. Are fees for implant supported ball overdentures less when the ball attachment is approximately 0.5mm smaller? If they are, you might want to consider asking yourself why? Is it even remotely possible that you consider these treatments to be temporary in nature with higher risk of failure? The only cost saving stems from the lack of a bar splinting the implants together. This treatment is no more affordable to the patient who cannot afford standard dental implants than a car is to the guy who can only afford to ride the bus.

The other interesting approach on the theme of affordability is to place the mini implants under the patients existing dentures. Of course this lowers the cost of treatment. When you do half the job, it will probably cost half as much. A recent glance at a website for "affordable implants" posted the fee of $3,900 for 4 mini implants placed under an existing denture. Now consider the fee you would charge to remake these prosthesis. You may also want to consider the cost of standard dental implants and the appropriate prosthesis, should your patient be so unfortunate to outlive the temporary mini implants *(Figures 2,3,4)*.

The dental implant market is no stranger to creative marketing techniques. "All-On-Four" is another grand example of giving the people what they want in a flapless guided procedure, without the information that they need. Magically, the well established principles of osseointegration and biomechanical force evaporate in the presence of marketplace force. The responsible clinician will advocate for their patient by increasing their own understanding. Blindly following the naive force of the marketplace is

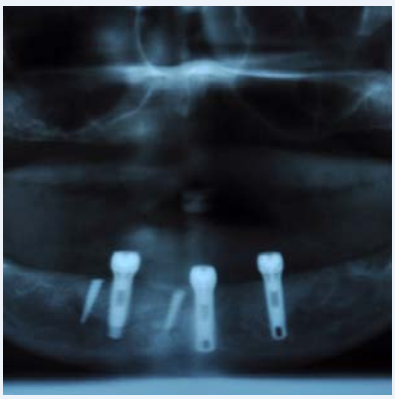
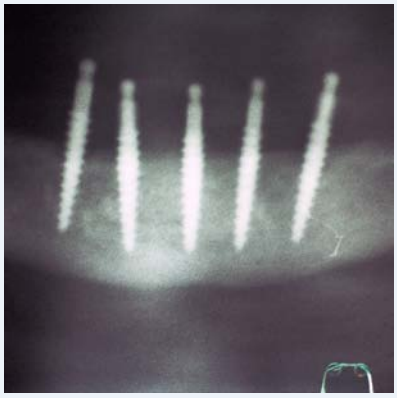


Figure 4: Post op Figures 1, 2, 3.

Figure 5: Crestal bone loss on 5 mini implants.



fraught with complications.

Mini Implants and Parafunction

If we are to consider the possibility that mini implants may not last forever, it might be prudent to understand why. The single greatest threat to the health of a dental implant is the application of excessive force. Bruxing and clenching distribute force upon implants that can easily exceed their capacity if they are too few in number, or positioned off axis without splinting. These issues are compounded with mini implants as a result of their minimal bone to implant interface, and their small diameter retentive sphere. They do not have the surface area at the crestal portion of the implant to resist excessive force. In this instance, the length of the implant is not nearly as important as the diameter at the crestal portion, where the majority of the force is distributed. When these forces are coupled with crestal bone loss, exposed threads and bacterial infiltration, we have a recipe for liquefying bone *(Figure 5)*.

The mini implant is uncommonly suited to this type of problem. If the implant manages to survive for any extended period without crestal bone loss, we only need to wait for the ball attachment to decrease in diameter enough to create micro movement in the prosthesis. Mini implants are constructed in one piece with no interchangeable components. Their small diameter does not permit a screw retained abutment. In a parafunctional environment, attachment fatigue, micro movement, and instability of the denture are an ever increasing problem. It is not a case of whether the ball will wear, but when *(Figure 6)*.

Parafunction exists in the general population. The completely edentulous patients with parafunction in my practice are close to 60%. It is apparent that denture wearers with parafunctional habits are significantly more likely to experience denture discomfort, resulting in persistent ulceration, irritation, and excessive bone loss. Denture wearers who have consistently experienced discomfort as a result of parafunction, are disproportionately inclined toward implant treatment. Those who seek implants as a solution, have significantly higher force factors to contend with. In practical terms, those who suffer with conventional denture wearing are more intrigued with the comfort related benefits that implants offer, and are disproportionately predisposed to parafunction. Complicating the issue further is the fact that implant patients lack proprioception. This disables their ability to judge the extent of the masticatory and parafunctional forces they generate. This is extremely problematic when both arches are restored with implants. These patients need implant options that manage and distribute these forces intelligently. Mini implants are not suited to this environment simply because they are mini. Denturists need to identify parafunction as part of the treatment planning process and advise our patients accordingly.

The Flap about Flapless

Experienced implant surgeons are intimidated by flapless surgery simply because they are experienced surgeons. They have seen enough to know that what lay beneath the soft tissue is best visualized with a flap. The greatest complication in any flapless procedure, mini or conventional, results from the lack of visual confirmation of adequate boney support. Problems range from inadequate circumferential bone thickness to crestal height variations and perforation. These problems are easily rectified in the hands of a surgeon experienced with grafting techniques, who has taken the time to raise a flap. Flaps take time to open and time to close, and time is money. If there is no flap, there is no confirmation that any implant is contained entirely in bone. Panoramic radiographs will not identify implant exposure that results from a sublingual concavity on the mandibular arch. Nor will it show a buccal perforation or the crestal bone deficiencies if an

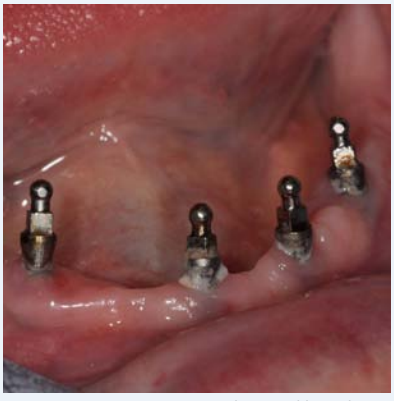
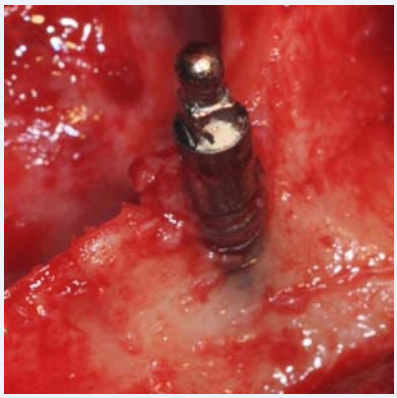


Figure 6: Hygiene issues with crestal bone loss and flat surfaces on ball attachments.

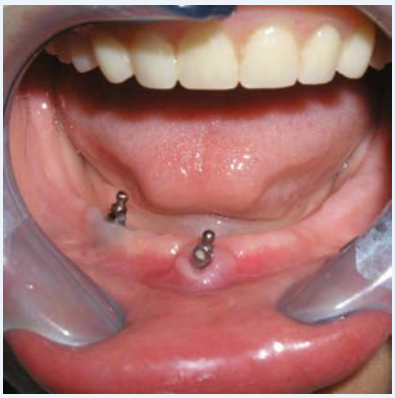
Figure 7: Buccal bone loss and thread exposure. Note adequate bone height lingually.



implant is positioned on a sloping surface with adequate bone lingually and insufficient bone facially *(Figure 7)*. CT scans are superior to conventional panoramic views in identifying this type of problem but are not the norm for postoperative confirmation. An experienced surgeon who raised a flap has the opportunity to see these defects and graft bone appropriately, or polish exposed threads as needed.

Unfortunately, the mini implant has the rather dubious distinction of providing denture stability promptly following placement, with a yet to be determined rate of success. Dr. Lemay referenced mini implants that were lost or broken, either at the time of surgery or post operatively. This was the only criteria he used to determine success. I can only assume that prosthesis stability would have played some part in the determination of "success". Crestal bone loss, exposed threads and chronically inflamed and irritated soft tissue, did not so much as get an honorable mention *(Figures 7,8)*. Anterior posterior rocking and recurring fracture are also common in instances where an existing denture was retrofitted and the vertical was inadequate. The same is true when modestly resorbed residual arches are restored in the absence of a vertical osteplasty. I have experienced all of these circumstances without a single patient sharing the same dentist. The majority of these patients still had prosthesis and implant stability. Unfortunately, I have not seen a mini implant patient who has managed to retain all of their original implants *(Figure 9)*. Admittedly, we are not advising mini implants as a treatment modality of choice. The inevitable consequence of this is that the patients I see are those in various manifestations of failure. Presumably those individuals with functioning asymptomatic mini implants are returning to the prescribing offices.

Figure 8: Soft tissue inflammation from exposed threads of Figure 7.



There is no doubt that the financial commitment of dental implant therapy is significant. The inevitable consequence of this fact is that the edentulous state may be treated with options ranging from conventional prosthesis to implants, as well as avoidance of treatment all together. The various treatment modalities and potential complications need to be understood in their entirety, by both patient and practitioner.

The edentulous patient is categorically phobic of dental treatment and has historically undervalued dentistry and the associated costs. Mini implants exploit this phobia by accentuating the smaller diameter implant site placed in a flapless procedure, for what at first appears to be a lesser cost.

Denturists have been recognized by surgeons as the single most powerful source of referral for implant patients. It is vital that we understand the potential complications associated with any treatment modality we advise, and act entirely in the best interest of our patients.

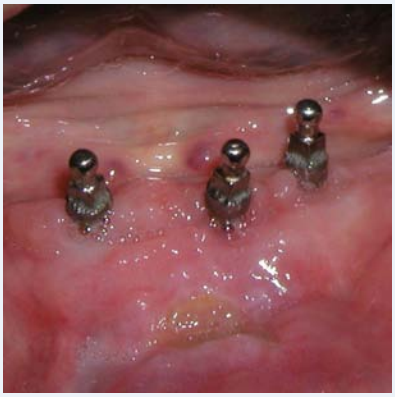


Figure 9: Initially 5 mini implants were placed after being advised that there was insufficient bone for standard implants.

Photograph information for the series of photos showing the mini implants that were reduced and replaced with conventional implants. Figures 1, 2, 3, 4, 7, 8
This patient had chronic discomfort due to soft tissue irritation and thread exposure on the implant at #41. The mini implant at #45 presented intermittent pain and parasthesia in Quad 4. Both implants were well integrated, but the denture stability was completely inadequate due to insufficient support, malpositioning and excessive wear to the remaining ball attachments. The removal of the mini implant at #45 presented significant risk factors. Dr. Chatelain chose to reduce both to bone height.

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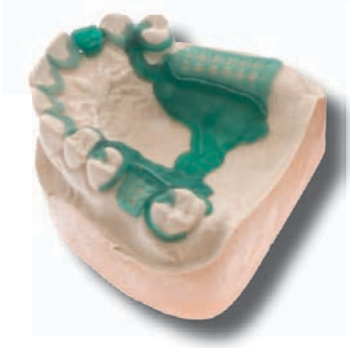

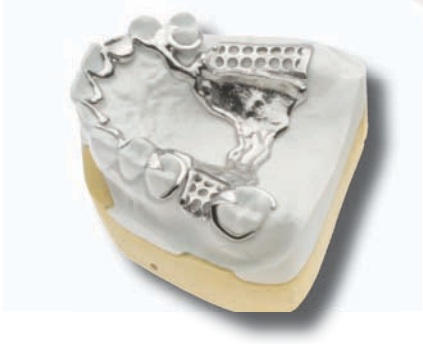

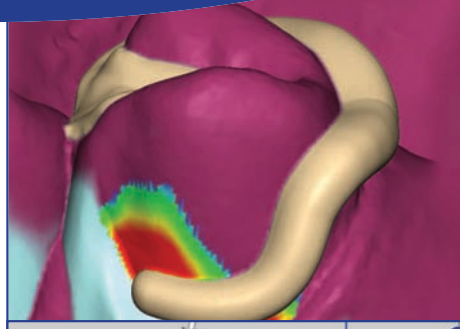

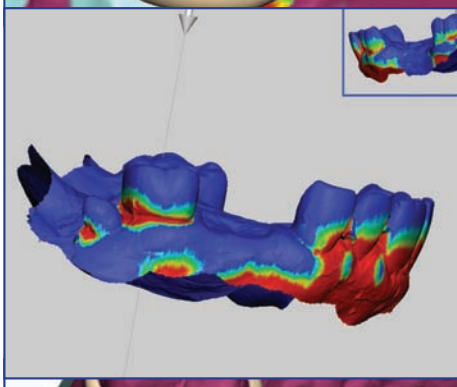

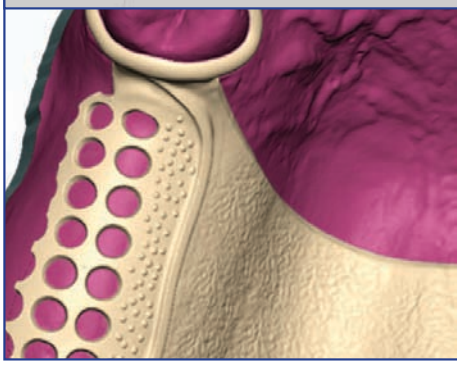

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PREVENTION IS INFECTION CONTROL

Max Mirhosseini, DD

We are all aware of the required components of infection control as outlined by provincial regulations. Infection control is sometimes regarded as a daunting task. However, once infection control becomes a natural practice in the denturist office, then the goals pertaining to patient and personnel safety are easily attained. The underlying message behind all infection control protocols regardless of the profession is PREVENTION, PREVENTION, and PREVENTION.

There are 7 principles that are inherent in routine practices:

1. STAFF EDUCATION AND TRAINING

All oral health care workers must receive proper training regarding infection control protocol and procedures, and be aware of the risks to which they are exposed.

2. PATIENT SCREENING

Obtaining a thorough and relevant medical history of the patient is an important part of an infection prevention and control program. The medical history alone cannot be relied on to identify all patients with infectious diseases. Therefore, standard precautions must be utilized with all patients regardless of symptoms.

3. IMMUNIZATION OF THE DENTURIST'S TEAM

All oral health care workers should be adequately immunized, know their immunization status and be certain it is up to date.

4. PERSONAL PROTECTIVE EQUIPMENT

All oral health care workers must consistently follow standard precautions of infection control and use personal protective equipment such as gloves, masks, protective eyewear and protective clothing.

5. HAND HYGIENE

Hand hygiene is the single most important measure for preventing the transmission of microorganisms. It is also the most cost effective method of reducing the incidence of health care associated infections. Hand hygiene includes the use of plain or antimicrobial soap with running water, as well as alcohol-based hand sanitizers. Evidence has shown that hand hygiene is generally poorly conducted by health care professionals. (This is where you can make a difference.)

When should you perform hand hygiene?

i. When hands are visibly soiled;
ii. Before and after you have contact with individual patients;
iii. Immediately after removing gloves;
iv. Immediately if your skin is contaminated or injury occurs;
v. After contact with dental laboratory materials;
vi. After contact with environmental surfaces or other equipment in the operatory and dental laboratory;
vii. Following personal hygiene; and
viii. Before eating or drinking.

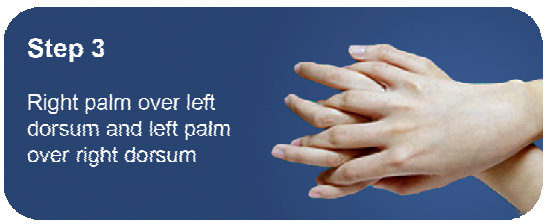
6. CLEANING, DISINFECTION AND STERILIZATION

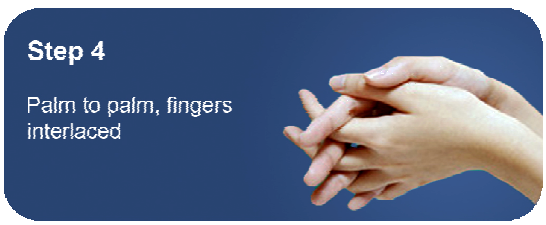
All instruments should be processed in a specific area of the dental office that is designed to facilitate quality control and ensure safety. The instrument processing area should have clear sections for receiving, cleaning and decontamination, preparation and packaging, sterilization and storage. The daily operation of every sterilizer must be reviewed and documented. A logbook should be kept for this purpose. Any malfunction must be noted and appropriate action taken. All instruments and trays should be stored in an enclosed space and dated.

7. OFFICE CLEANING AND HOUSEKEEPING

Clinical contact surfaces are frequently touched in the course of patient care. They can become contaminated by direct spray or splatter during dental procedures, or by contact with gloved hands or contaminated instruments. Clinical contact surfaces should be cleaned and disinfected between patients and at the end of the workday using an appropriate intermediate-level disinfectant. Staff should take appropriate precautions, including wearing gloves, while cleaning and disinfecting surfaces to prevent occupational exposure to infection and hazardous chemicals. Alternatively, clinical contact surfaces and equipment can be protected from contamination by the use of barriers such as clear plastic wrap.

These seven steps to a healthy denturist office are the key to infection prevention for your patients, staff and your personal well-being. Adherence to these steps will ensure patient safety and professional excellence.





New Members

The College of Denturists of Ontario would like to welcome all the following new members of our profession.

Cezar Anacio
Tyler Ballantyne
Stefanie Brissette
Archimedes Cruzado
Aaron Gawza
Prit Gill
Sung Kuk (Chris) Hong
Ricardo Iaboni
Serghei Ischenco
Kabir Jalili
Kyoung Min (Jennifer) Lee
Seongwoo Lee
Sung Jim (Charles) Lim
Brendan Morrison
Braden Neron
Michael Serafim
Milania Shahata
Paul Sworczuk
Taren Trindade

Resigned Members

The College of Denturists of Ontario would like to thank all the following members for their years of dedication to the profession.

John Birnie
Arnold Feige
Francois Fournier
Randal Gray
Seung Shin

Deceased Members

The College of Denturists of Ontario extends condolences to the family and friends of the following members who have passed away.

Karl Barthmann
Edmund Jurevicius
Henri Rotsaert

**January 1, 2010 to October 31, 2010*

Suspended Members

The certificates of registration of the following people are currently under suspension for failure to meet annual College registration renewal fee requirements. These individuals are not permitted to fit, dispense, design, construct, repair or alter a denture. In addition, these individuals may not use the title "denturist," a variation or an abbreviation or equivalent in another language. These individuals may not hold themselves out as qualified to practice in Ontario as a denturist.

In the event of suspension, the full amount of outstanding fees, plus all fees that would have been paid if the individual had remained a member, plus applicable penalty fees must be paid to remove the suspension.

Anyone interested in the status of any registrant may contact the College of Denturists of Ontario directly.

Clyde Arnold
Barrington Beckford
Yury Belopolsky
Bill Callander
Kong Chien
David Cojocaru
Keith Cowman
Rosemarie Dacres
Sheila Fewer
Gregory Fredericks
D. Bernard Freedman
Mona Galliera
John Gecelovsky
Mimi Gozlan
Nadeem Hassen
Chagay Hellenbrand
Walter Hempfling
Dan Huber
James Keslassy
Nazarali Khajeali
James Matera
Antonio Del Giglio Materazzo
Paul Maunder
Ernest McCrone
Helmut Pardue
Lev Poyasov
Benjamin Rakusan
Ludlow Reynolds
Mark Richardson
Peter Shi Yan
Milovan Solunac
Walter Wimmer

**as of October 31, 2010*

QUALITY ASSURANCE MANUAL

Every member is REQUIRED to have a Quality Assurance Manual in their practice location. If you do not have one, you can request a copy for $75 by filling out the form online and faxing it to the College.
This form can be found at www.denturists-cdo.com/qualityassurance.

CHANGE OF ADDRESS NOTIFICATION

Each member is required by law to report all the address of their primary place of practice. This address is a matter of public record in the College Register and must be reported promptly. If a member is not in active practice, he or she must supply a mailing address to the College. Please contact the College if your address has changed.

COLLEGE CERTIFICATE

Each member is required to display a copy of their College Certificate in all of their practice locations. If you require a duplicate Certificate please contact the College. The cost of a duplicate Certificate is $50.

Look out for the

SPRING 2011

College Contact

We are always looking for new articles and suggestions for our upcoming issues. If you would like to submit an article or have any suggestions, please send an email to editorial@denturists-cdo.com.

We are also looking to feature our members' achievements. If you would like to be featured or recommend another member to be featured, please send an email to editorial@denturists-cdo.com.

CROSSWORD

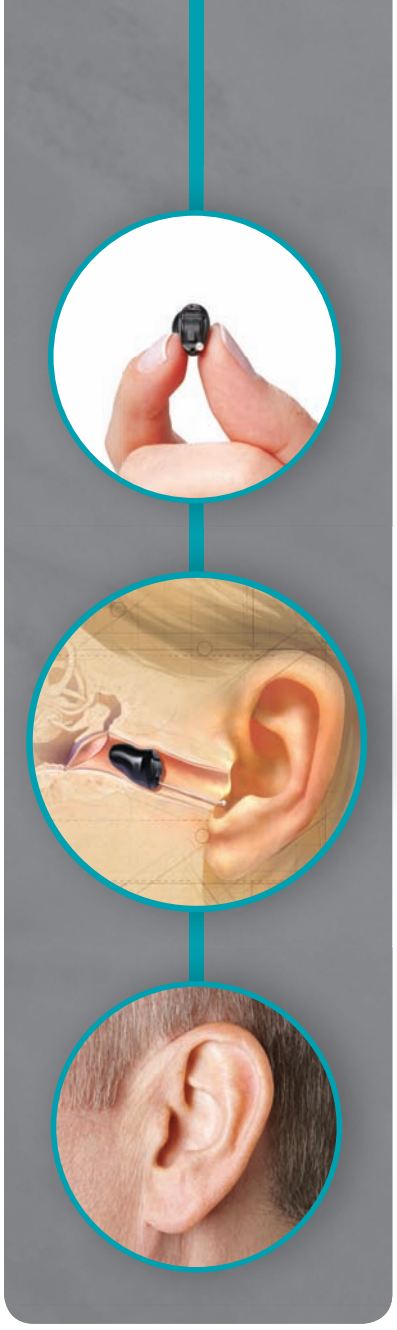
ACROSS

2. Protection of the Public by regulating the profession
4. Acronym for College of Denturists of Ontario
6. Behind
7. Negative reproduction of an area
9. New name for CAT scan
10. Away from centre
11. Swelling due to an infection
15. Inflamation of the gums
16. Insulin Deficit Causes

DOWN

1. Hypersensitivity Reaction
2. Complete Upper Denture
3. Below the diaphragm
5. Last name of current College president
8. Acronym for take on prescription
12. Blood Pressure
13. Number of public members on Council
14. Partial Upper Denture

Please submit your answers to lellis@denturists-cdo.com by December 31, 2010. Winners and answers will be shown next issue. The winner will win a prize from Micrylium valued at $100. If you would like to submit your own crossword, please send 20 questions and answers related to the denturism profession to lellis@denturists-cdo.com and we may use the questions for the crossword in the next issue.



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